

Safety in Sports

Safety Management Schemes in Handball

- Implementation and Testing - (D9b)



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KfV Kuratorium für Verkehrssicherheit

EuroSafe European Association for Injury Prevention and Safety Promotion

Consumer Safety Institute

ARAG Insurance www.ARAG-Sport.eu

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1. Introduction

The present report „Safety Management Schemes in Handball" (D9b) is part of the European Project "Safety in Sports" which has received funding from the EU, in the framework of the Public Health Programme 2003-2008. The main objective is to depict promising measures that contribute to the reduction of injury numbers and/or severity and to disclose meaningful and applicable strategies to promote them within the European handball community. The aggregation of best prevention measures and most promising promotion strategies should finally lead to "Safety Management Schemes" (SMS) in handball – a basic guideline how to sustainably implement sports injury prevention into European handball. Therefore, a previously selected choice of most promising prevention measures and promotion strategies was pilot tested in two collaborating national handball federations (i.e. Czech Handball Federation, Norwegian Handball Federation). Experiences made during these implementations were assessed with particular regard to increasing compliance and guaranteeing maintenance.

Both, compliance and maintenance are often described as key indicators for successful sports injury prevention (Finch 2011, 2006, Frisch 2009). Finch (2006) pointed out that prevention measures need to be acceptable, adopted and complied with the population they are targeted at. The pure existence of effective prevention measures does not strictly guarantee success in fighting sports injuries - even if there is clear scientific proof (e.g. mouth guards clearly reduce amount and severity of dental and orofacial injuries but still lack popularity due to missing comfort). Sports injury prevention is a complex issue. The fact that an intervention works fine in a clinical setting does not consequently allow the conclusion that it is perfectly suited for the demands of real-world sports communities (i.e. European handball federations). Indeed, a lot of scientifically proven prevention interventions are hardly applicable and thus lack acceptance and compliance within the target groups (Engebretsen et al. 2008, Steffen et al., 2008). Bridging the evidence-to-practice translation gap strictly needs the involvement of the respective sports community on all stages of safety management. For these reasons the handball federations' perception and knowledge of the injury problem itself as well as their perspectives of handling the problem within their very own administrative structures were considered with particular regard to their demands and capacities.

Chapter 2 explains inevitable preliminary actions, which pave the way for further implementation activities. Consequently, chapter 3 briefly summarizes the methodological approach that has been applied to identify existing prevention measures and promotion strategies. Moreover, the consensus-based evaluation process that finally led to the choice of effective, applicable and acceptable measures and strategies for the pilot implementations in Czech and Norwegian handball is explained. A detailed description of this methodology is laid down in the preceding reports "Inventory of existing prevention measures and promotion strategies in handball" (D2b) and "Best injury prevention measures and promotion strategies in handball and basketball" (D5). Following this, chapter 4 illustrates the individually

selected implementation strategies in Czech and Norwegian handball on the basis of their respective as-is state in injury prevention as well as the federations' specific demands and philosophies. This includes a detailed description of the workflow and all undertaken activities. However, chapter 5 will concentrate on a qualitative analysis of the implementation activities. The implementation is mainly assessed by means of surveys among coaches and structured interviews with respective national experts in charge. Thus, potential effects can only be monitored in terms of changes in awareness and perception as well as reach and use of provided information. Finally, the results of the applied methodology will be discussed and summarized in chapter 6 to conclude with recommendations for Safety Management Schemes (SMS) in handball, which may serve as a guideline for the sustainable implementation of effective, applicable and acceptable injury prevention in European handball communities (i.e. EHF and attached national handball federations).

Table 1 gives an overview where the herewith provided report and its contents can be classified in the workflow of the applied project methodology.

Tab. 1: Safety Management Schemes in Handball – Workflow and Contents

<table>
<tr><td colspan="2">Inventory on the Burden of Handball Injuries, Existing Prevention Measures and Safety Promotion Strategies (Workpackage 4), Report D2b</td></tr>
<tr><td colspan="2">Best Injury Prevention Measures and Safety Promotion Strategies in Basketball and Handball (Workpackage 5), Report D5</td></tr>
<tr><td colspan="2">Safety Management Schemes in Handball (Workpackage 6), Report D9b
Based on test implementation in Czech and Norwegian Handball</td></tr>
<tr><td>Injury Prevention Measures</td><td>Safety Promotion Strategies</td></tr>
<tr><td>Training & Physical Preparation
Basic Physical Preparation
Structured Warm-up Routines
Basic and Advanced
Technique Training
Neuromuscular Training

Technical & Political Approaches
Increase of Awareness
Adapation of the Education Framework
Reduction of Matches

Equipment & Facilities
Mouth Guards
External Ankle Support

Medical & Non-medical Support
Pre-Season Screenings</td><td>Athletes Information
Leaflets
Brochures
Websites
TV

Trainer Education
Education Module „Injury Prevention“ (Theoretical & Practical)
Disseminators Education Module (Trainer Educators)

Information for Sports Federations
Information Module for Officials
Symposia on Injury Prevention
Expert Consultation meetings (Round tables)</td></tr>
</table>

2. Preliminaries

In the middle of 2007, prior to the launch of the project “Safety in Sports”, collaboration with European Handball Federation (EHF) was officially requested. After having consulted the EHF Methods Commission and the EHF Competitions Commission, the EHF Executive Committee decided in their meeting in Rome/Italy on 12th October 2007 to support the project by signing a respective EHF letter of intent. At that time there was no official prevention campaign running within the federation. Neither education in injury prevention nor other preventive contents had been promoted so far. However, the need for strengthening this area was significantly given. Following the advice of both EHF Technical Commissions it had been agreed upon contacting two EHF Member Federations with great interest and/or experience in working in the field of safety and injury prevention in handball, namely the Norwegian Handball Federation and the Czech Handball Federation and to request their participation as collaborating national handball federations. An outline of the project that included main objectives and core work packages was presented to the general secretaries of both member federations. Following this, the Czech Handball Federation and the Norwegian Handball Federation agreed to support the project with special regard to the national pilot (test) implementations of prevention measures and safety promotion strategies.

For the Norwegian approach, the department of training and education took up the issue with clear support from the general secretariat. In addition, experts from the Oslo Sports Trauma Research Centre were won over to assist with their expertise and knowledge in injury prevention in handball. The Czech Handball Federation put the Charles University Prague, Faculty of Physical Education and Sport in charge, which is strongly linked to the Czech Handball Federation and its training and education board. Traditionally coaches’ education in Czech handball takes place at universities. In this case the curriculum of the coaches’ education is built at the Charles University.

By request of the EHF BG Education and Development theoretical and practical information and education seminars on injury prevention were hold during multiple EHF Top & Youth Coaches seminars in Macedonia, Hungary and Austria. This strategy was chosen to stay in touch with the project team, to get updates on project progress and to early introduce preliminary project findings and interim results to the EHF coaches’ community.

The following schedule shows up official activities that were undertaken within the EHF and the collaborating national handball federations previously to the start of the implementation phase.

European Handball Federation:

- EHF Executive Committee Meeting (Oct 2007)
- Letter of Intent (MS 4) (Oct 2007)
- Project Meeting with EHF BG Education/Development (Jun 2008)
- EHF Top Coaches' Seminar in Skopje (Dec 2008)
- Request for Collaboration of 2 National Pilot Associations (MS8) (Jan 2009)
- EHF Youth Coaches' Seminar in Györ (Aug 2009)
- EHF Top Coaches' Seminar in Vienna (Jan 2010)
- 1st Expert Consultation Meeting (ECM1) (Jan 2010)
- Delivery of Inventory Report in Handball (D2b) (May 2010)

Czech Handball Federation:

- Request for Collaboration (Jan 2009)
- 1st Project Meeting (Apr 2009)
  Start of Baseline Survey (n = 95) (MS14)
- Letter of Intent (MS9) (Sep 2009)
- 1st Expert Consultation Meeting (ECM1) (Jan 2010)
- Inventory Report in Handball (D2b) (May 2010)
- Partner Agreement (Sub-Contract, MS12) (Sep 2010)
- 2nd Expert Consultation Meeting &
  Discussion of Draft toolkits (ECM2) (D7) (Oct 2010)
- Test Implementation (T) (Oct 2010 – May 2011)

Norwegian Handball Federation:

- Request for Collaboration (Jan 2009)
- 1st Project Meeting (Apr 2009)
- 2nd Project Meeting (Jun 2009)
  Start of Baseline Survey (n = 267) (MS14)
- Letter of Intent (MS9) (Sep 2009)
- 1st Expert Consultation Meeting (ECM1) (Jan 2010)
- Inventory Report in Handball (D2b) (Apr 2010)
- Partner Agreement (Sub-Contract, MS12) (Jul 2010)
- 2nd Expert Consultation Meeting &
  Discussion of Draft toolkits (ECM2) (D7) (Aug 2010)
- Test Implementation (T) (Aug 2010 – Apr 2011)

Based on the findings from work packages 4 and 5, which gave a number of promising state-of-the-art prevention measures and safety promotion strategies for the test implementations, a joint work plan was developed for each pilot. Specific tasks, resulting from the applied methodology, were contractually agreed in the run-up of the implementation (cf. chapter 4.2 Partner Agreement, Subcontracts, Tasks and Activities). These subcontracts contain baseline and follow-up surveys to comprehend the potential impact of the implementations (cf. chapter 5 Testing the implementation), cooperation during elaboration and selection of the respective measures and strategies (cf. chapter 3 From evidence into Practice), and a documentation and evaluation as well as potential refinement of the toolkits with particular regard to increasing compliance and guaranteeing maintenance beyond project termination.

3. From Evidence into Practice

The purpose of this chapter is to briefly explain the methodology that finally led to a manifold offer of promising prevention measures and potential strategies for their promotion (Draft toolkit, D7). This toolbox was provided to the pilot handball federations as a non-binding proposal and inspiration in the run-up to the planned test implementation. The federations were then invited to pick up individual or multiple elements of this toolbox with regard to their specific demands and with view on potentially existing or already running prevention programmes in the respective federation. For a detailed description of the methodology and all references please see the preceding reports “Inventory of existing prevention measures and promotion strategies in handball” (D2b) and “Best injury prevention measures and promotion strategies in handball and basketball” (D5) (Luig & Henke 2010).

3.1 Aetiology and burden of handball injuries

First of all, a general understanding of handball injuries, typical injury situations and injury mechanisms is necessary to tailor targeted injury prevention programmes. Generally, there is a rough distinction between acute/traumatic and chronic/overuse injuries. Acute/traumatic injuries result from a specific, identifiable events whereas chronic/overuse injuries are caused by repeated micro-traumas without a unique identifiable event responsible for the injury. Although chronic injuries, in particular lower back pain and shoulder pain in field players and elbow pain in goalkeeper, frequently occur among handball players overuse injuries are not so well recorded yet. Hospital records, insurance statistics or national surveys that are mainly used for data collection tend to focus on acute injuries. Minor injuries and overuse injuries are mostly underrepresented (Myklebust 2010). Therefore the injury characteristics described in this section relate predominantly to acute injuries.

Acute injury incidence rates in handball are comparable to those in other team sports where one-on-one situations with inevitable body contact frequently occur, such as in football, field hockey or in basketball. Research indicates that the overall incidence is at about 1.5 - 2 injuries per 1000 hours of exposure. At least 2.4 million European citizens play handball in an organized manner and regularly participate in competition. Conservatively estimated one has to expect at least 320,000 handball-related injuries a year. While the average expenses of an injury are at around € 700, severe knee injuries cause an average of € 2,300 medical cost per case. A quick calculation suggests that handball injury cost approximately € 250 – 400 million a year, including knee injuries at a cost of around € 125-200 million/year. These estimations are quite conservative as the actual costs are probably higher as figures as to the magnitude of chronic injuries are underrepresented in current injury registrations.

In general, handball match incidences are at least ten times higher compared to training injuries, depending on age, gender and performance level. About 2/3 of all

injuries occur in competition and 1/3 during training. Injuries in competition gain more significance with advanced age and performance level, even though more time is being spent in training compared to time spent in competition. Professional athletes show notable higher incidences than semi-professionals or amateurs. With respect to specific injuries it is striking, that in particular knee injuries seem to have a plainly higher match incidence. Regarding men, Myklebust et al. (1998, 2003) report an 8 times higher match incidence which is even topped by a 53 to 93 times higher match incidence among women.

Acute injuries can essentially be attributed to four body regions: Head, Hand/Wrist, Knee and Ankle (cf. fig 1). Regardless of age, gender and performance level of players, there is a general tendency that the majority of all injuries affect the lower limbs with the knee joint being the most affected body part (Petersen et al. 2002, Wedderkopp 1997, 1999, 2003, Seil 1998). One fourth of all injuries pertain to the knee joint. Women are clearly more prone to non-contact knee injuries possibly due to deficits in neuromuscular control as well as greater joint laxity and decreased muscular stiffness (Renstrom, 2008).

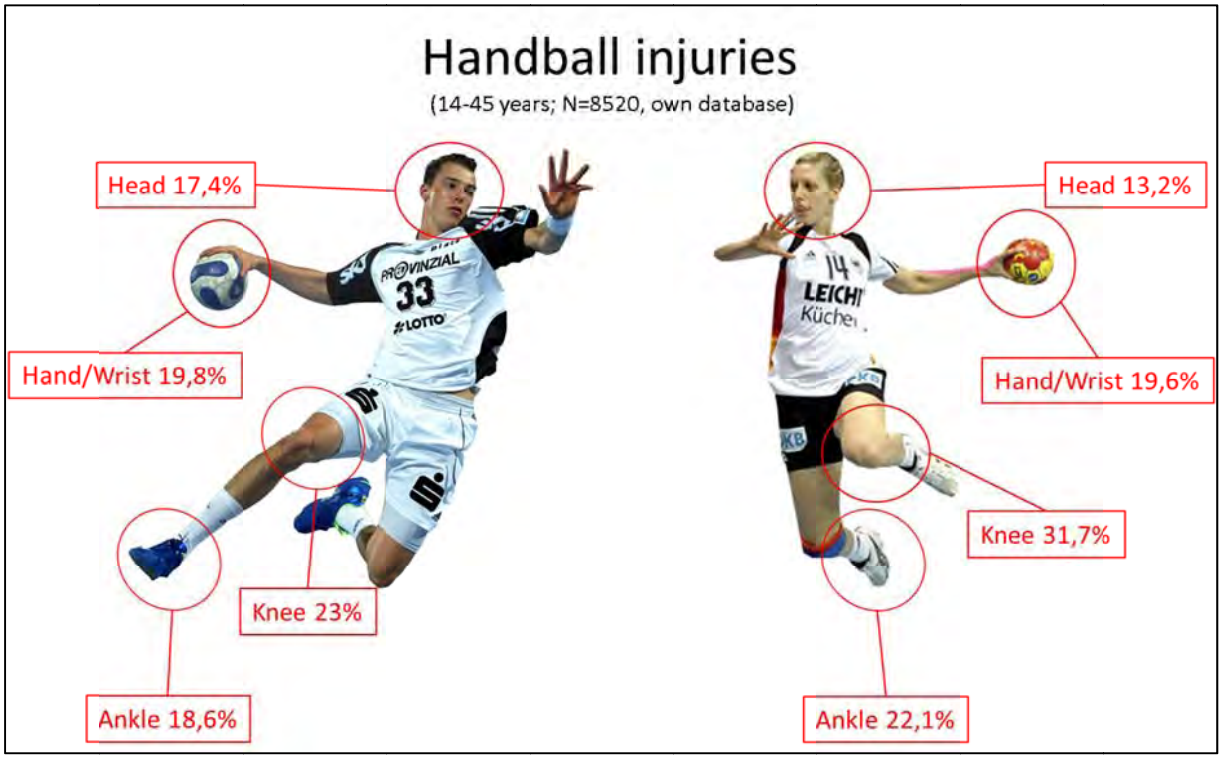


Fig. 1 Localisation of acute injuries among adolescents and adults

Younger athletes seem to be more prone to injuries of the upper body regions, especially finger injuries, resulting from incorrect ball handling, and head injuries. With advancing age there is an increase in injuries of the lower extremities, in particular in knee injuries. Almost half of all injuries in the group of players under 14 years of age relate to hand/wrist or head. In contrast nearly 1/3 of all injuries in adults relate to knee injuries. In female professionals even every second injury is a knee injury.

The most common acute injuries are sprains, with knee, ankle and fingers being the most affected body parts followed by contusions and strains (Froböse et al. 1996, Wedderkopp et al. 1997, Seil et al. 1998, Olsen et al. 2006). In elite tournaments contusions are more common than in play at amateur level. Fractures and dislocations are quite rare. However, younger athletes are typically more vulnerable to fractures, in particular finger, wrist and forearm fractures, than older athletes.
Chronic injuries usually result from repetitive stress on biological tissues such as capsules, ligaments or tendons, leading to instabilities of the affected joints. In handball, the most common overuse injuries are lower back pain - probably due to muscular imbalances-, periostitis, shoulder pain and elbow pain (Wedderkopp 1997, Pieper 2002, 2007, Olsen 2006). In particular goalkeepers frequently experience elbow pain caused by frequent ball blocking which may finally result in repetitive hyperextension traumas (Tyrdal et al. 1996, 1998, Popovic & Lemaire 2002).

3.2 Injury situations and risk factors

Most players get injured in contact situations. In general players in offensive actions are more at risk than defence players (Froböse et al. 1996, Seil et al 1997). Half of all injuries in matches are due to contact with opponents whilst in training only one out of five injuries occurs in contact situations (Seil et al. 1998). The share of contact injuries is even higher during major international tournaments. In the majority of cases injuries occurring in contact situations affect the upper body, in particular head and fingers. Non-contact injuries mostly are related to the lower extremities and in general these injuries are more severe. Jumping, landing and cutting manoeuvres while running are the predominant situations leading to non-contact injuries. Injury incidences vary according to the player's position. Attacking backcourt players seem to be more frequently affected by injuries, followed by pivot players and central defenders (Henke et al. 2005). Pivot players, playing at a position characterized by hard physical contact, have a higher share in head injuries (Henke et al. 2005). Goalkeepers are quite vulnerable to the "handball goalies elbow" – a chronic injury that results of repetitive hyperextension traumas when blocking numerous shots.

3.3 Prevention approaches

In general, measures aiming at preventing sport injuries can be roughly divided into four more or less distinct categories, namely into measures focusing on 'training and physical preparation of basketball players', 'technical and political approaches', 'equipment and facilities', and 'medical & non-medical support. A structures database and literature search identified over one hundred preventive recommendations in 75 publications related to preventing injuries in basketball delivering a total number of 109 different recommendations as to the prevention of handball injuries (cf. Tab.2). More than one third of the published recommendations were based on strong scientific evidence, all others were at least based on expert opinion.

Tab.2. *Distribution of preventive measures depending on category and validation level*

	Training & Physical Preparation	Technical & Political Approaches	Equipment & Facilities	Medical & Non-medical Support	
Multiple scientific validation	16	2	5	1	**24 (22%)**
Single scientific validation	13	0	1	2	**16 (15%)**
Science-based	14	7	5	0	**26 (24%)**
Multiple expert recommendation	13	6	5	1	**25 (23%)**
Single expert recommendation	9	3	4	2	**18 (16%)**
	65 (60%)	**18 (17%)**	**20 (18%)**	**6 (5%)**	**109**

The great majority of recommendations is related to training contents. Most of these training programmes are either concerned with balance or coordination exercise for the lower extremities, in particular with a focus on ankle and knee injuries and also women as vulnerable risk group, or core strengthening exercises. Passive protection such as custom made mouth guards or external ankle support (e.g. orthoses or taping) is also recommended. Promotion of appropriate behavior and fair play are core interests of 'technical and political approaches' rather than stricter officiating and rule changes. There is only a moderate call for medical screenings in terms of pre participation examinations. A detailed analysis of the literature search can be found in the report D2b "Inventory of existing prevention measures and promotion strategys in handball.

3.4 Recommended measures

In order to better assess the value of these conclusions and recommendations from the database and literature search, experts in the field of handball injury prevention were invited to join an expert panel (N=11) that reviewed each of the presented prevention measures on three criteria:

→ **potential EFFECTIVITY** in terms of reducing injuries (i.e. injuries become less frequent or less severe)

→ **potential APPLICABILITY** in terms of required effort for realisation (i.e. low time, financial, material and personnel expenditures)

→ **potential ACCEPTANCE** within the handball community (i.e. execution in compliance with athletes, coaches and associations)

With regard to all three criteria preventive measures from the field of “Training & Physical Preparation” were judged as most promising approaches. Taking injury situations and risk factors into consideration, it seems appropriate to educate and train players in to successfully manage contact situations, to enhance technique and performance in typical basic motor patterns such as jumping, landing, feints and cutting that are frequently associated with increased injury risks, and to improve the general fitness level of the athletes. Athletic training and neuromuscular control, e.g. muscle strengthening, stabilization, balance and proprioception contribute to performance enhancement as well as injury prevention. Therefore, it is advised that training sessions should be tailored towards the prime interest of players in enhancing their athletic performance. This sort of training should be applied starting at early ages.

Out of 109 potential measures the following 12 more specific preventive recommendations were judged most valuable by the expert panel. All top recommendation mainly address the training sector.

- Exercises that improve landing, jumping, cutting and planting technique. In addition, balancing and strengthening exercises should be applied as shown in the programme. Proper technique in the execution of all exercises is essential and should be supervised by the coaches. The programme should be applied as warm-up before each workout. Some of the exercises can even be before matches (balance exercises just before the training).
- A structured warm-up programme containing agility, balance, strength and playing technique exercises, designed to improve awareness and knee and ankle control during landing and pivoting movements prevents knee and ankle injuries among youth athletes. It is suggested that programmes focusing on technique (cutting and landing movements) and balance training (on wobble boards, mats or similar equipments) should already be implemented in players aged 10-12 years. Furthermore, preventive training should also be routine in training programmes for adolescents.
- Structured warming-up and mobilisation before training and competition, improving the flexibility, core stability and handball specific coordination, promotion of correct knee and foot position, appropriate shoes and flooring.
- Better preparation of athletes, in particular female athletes in view of typical injury situations and mechanisms (e.g. landings, side-cutting). Regular application of balance, coordination, jump and strength exercises as part of warm-up routine in handball training (pre-seasonal, season-attending) to prevent knee and ankle injuries; “Knee over toe” technique.
- Prevention of ACL injuries is possible with the use of neuromuscular training in female elite team handball players, but successful prevention depends on good compliance among the players.

- Training programme consisting of 12 basic exercises dealing with stabilisation of the core and shoulder girdle, balancing and coordination practices and proper jumping and landing technique. It is recommended to pick up 5-6 exercises per session covering knee and shoulder stabilisation and coordination elements as integral part of the warm-up routine. During pre-season the programme should be included in each session, during regular season twice a week.
- Neuromuscular training may assist in the reduction of ACL injuries in females athletes if (a) plyometrics, balance, and strengthening exercises are incorporated into a comprehensive training protocol; (b) the training sessions are performed more than 1 time per week; (c) the duration of the training programme is a minimum of 6 weeks in length.
- Preventive training programmes should include strength and power exercises, neuromuscular training, plyometrics and agility exercises: They should be integrated into warm-up routine of the regular training. When properly executed they can serve to enhance performance and prevent injuries. Focus should be on performance of the hip-knee-foot line and ‘‘kissing knees’’ should be avoided. Sustainability and compliance (e.g. acceptance among athletes and coaches) are essential criteria for a successful programme. Ideally, these prevention programmes should be introduced as early as possible in the training period. In some sports this would be at the age of 6–10 years.
- In general, preventive training interventions should be tailored to the demands of handball (e.g. contact with opponents) and reflect the present injury situations and mechanisms. Furthermore, the education of correct technique in handball movement patterns that frequently lead to injuries (e.g. jumping, landing, feints) is essential part of injury prevention. Athletic training and coordination (e.g. strengthening, stabilization, proprioception) combine prevention and performance enhancement and thus are recommended.
- Neuromuscular training increases EMG activity for the medial hamstring muscles, thereby decreasing the risk of dynamic valgus. This observed neuromuscular adaptation during side-cutting manoeuvres can potentially reduce the risk for non-contact ACL injury.
- Education of correct knee joint position, exercises from respective exercise groups (balancing, strengthening and technique training) should be applied during each session of the first eight weeks of training. Followed by once a week in the course of the season.
- An appropriate warm-up including activation, mobilisation/stretching and preventive exercises (e.g. proprioception, balancing) is obligatory for each training session. In addition, a regular structured prevention programme containing (a). basic strengthening (b). advanced strengthening with integral technical, coordinative and cognitive handball elements (c). an individual / position-specific preparation for typical injury mechanisms should be applied. Frequency, intensity and contents depend on season phase and individual status of athlete.

Detailed information on these recommendations such as the specific exercises of the individual training programmes were then delivered to both handball federations for advanced review and further discussion on how to promote these ideas within the respective federation and its handball community.

3.5 Recommended promotion strategies

The Czech Handball Federation and the Norwegian Handball Federation were therefore encouraged to nominate national experts that have a keen interest in refining the above mentioned information according to the structure, philosophy, demands and capacities of the respective federation. These national meetings should finally lead to a decision which best practices and which promotion strategies are best suited for the individual situation of each pilot federation.

As “Training & Physical Preparation” offers the most and – with regard to the expert evaluation – also the best opportunities to take measures against handball injuries both federations independently came to the consensus that the education of coaches should get the highest priority in the pilot. Coaches are the best platform to deliver appropriate training programmes and they embody the link between theory and practice. The integration – if not integral part so far – and / or improvement and modification of injury prevention contents into the regular national coaches’ education curriculum is aspired as main aim. The evaluated measures will be sighted. Best promising training measures will be collected and adopted to the specific situation in the different target groups.

Furthermore, the best judged measures from the other three prevention fields e.g. protective equipment will be collected and replenished to cope with other handball specific injury mechanisms and to deliver a comprehensive education module that should also contain important theoretical information. To satisfy other target groups such as athletes, parents or functionaries it is also considered to produce informative media e.g. handouts, brochures, TV spots, DVDs with basic information covering all fields of injury prevention as displayed in the following table 3.

A detailed description of the evaluation process can be found in the report D5 “Best injury prevention measures and promotion strategies in handball and basketball”.

Tab.3. Prevention Matrix in Handball

Gender	Age	Performance Level	Training & Physical Preparation	Technical & Political Approaches	Equipment & Facilities	Medical & Non-medical Support
Female	Children	low	Basic Technique Training, Balance, Strength & Stabilisation, Flexibility & Mobilisation, Agility	Fair Play & Respect	Shoe	
		medium	BTT, BAL, S, F, A	Fair Play & Respect	Shoe	
		high	BTT, BAL, S, F, A	Fair Play & Respect	Shoe	
	Youth	low	BTT, BAL, S, F, A	Fair Play & Respect	Shoe, Orth	
		medium	BTT, BAL, S, F, A	Fair Play & Respect	Shoe, Orth	
		high	Advanced Technique Training (with contact) BAL, S, F, A	Reduction of matches, Regeneration	Tape, Mouthgurads, Floor	Medical Check-Ups, Performance Diagnostics, Physio
	Adult	low	BTT, BAL, S, F, A	Fair Play & Respect	Tape, MG, Orth	
		medium	BTT, BAL, S, F, A	Fair Play & Respect	Tape, MG, Orth	
		high	ATT, BAL, S, F, A	Reduction of matches, Regeneration	Tape, MG, Floor, Orth	Medical Check-Ups, Performance Diagnostics, Physio
Male	Children	low	BTT, BAL, S, F, A	Fair Play & Respect	Shoe	
		medium	BTT, BAL, S, F, A	Fair Play & Respect	Shoe	
		high	BTT, BAL, S, F, A	Fair Play & Respect	Shoe	
	Youth	low	BTT, BAL, S, F, A	Fair Play & Respect	Shoe, Orth	
		medium	ATT, BAL, S, F, A	Fair Play & Respect	Shoe, Orth	
		high	BTT, BAL, S, F, A	Reduction of matches, Regeneration	Tape, MG, Floor, Orth	Medical Check-Ups, Performance Diagnostics, Physio
	Adult	low	BTT, BAL, S, F, A	Fair Play & Respect	Tape, MG, Orth	
		medium	ATT, BAL, S, F, A	Fair Play & Respect	Tape, MG, Orth	
		high	ATT, BAL, S, F, A	Reduction of matches, Regeneration	Tape, MG, Floor, Orth	Medical Check-Ups, Performance Diagnostics, Physio

4. Implementation Activities

Work package 6 generally aims at implementing and testing of safety management schemes in real world handball. In this specific context implementation means that chosen elements of the elaborated injury prevention measures and promotion strategies from work packages 4 and 5 become documented parts in Czech and Norwegian handball. As aforesaid, the individual approaches of each pilot handball federation were determined during repeated expert consultation meetings prior to the actual implementation phase.

The table below shows the staff, which was personally involved in the implementation activities.

Tab.4. Implementation in Handball - Participants

Organisation / Association	Name	Function
European Handball Federation	Höritsch, Helmut	BG Education & Development
	Pollany, Wolfgang	Methods Comission Education and Training
	Fröschl, Peter	BG Methods & Beach Handball
	Huang, Nicole	BG Education & Development
Czech Handball Federation	Tůma, Martin	President of Coaches' + Methods Commission
	Pokorný, Jakub	Coaches' Education
	Táborský, Frántisek	Chairman Methods Commission
	Šarochová, Dagmar	Secretary General
Norwegian Handball Federation	Aagaard, Kari	Leader Training & Coaching
	Myklebust, Grethe	Assistant Professor OSTRC
	Furuseth, Per Otto	Secretary General
	Løken, Jan Henning	Womens' National Team Physio
	Sunde, Solveig	Consultant
	Svendsen, Tom Morten	Womens' National Youth Team Coach

General tasks and activities that were essential to guarantee the proper implementation and to measure potential impacts of the implementation were stipulated in defi-

nite partner agreements. The perception of potential changes in awareness of and attitudes towards injuries and their prevention as well as potential reach and use of promoted materials was tested with the help of questionnaire based baseline and follow up surveys among Czech and Norwegian handball coaches.

4.1 Injury Prevention and Safety Promotion in the Pilot Federations

For both pilots, primary safety promotion strategy is the education of coaches with regard to preventing handball injuries. Among others, Saunders et al. (2010) highlight that in team sports particularly coaches can play a decisive role in translating the prevention evidence into practice. They are probably the best delivery platform for training and physical preparation programmes, which have been detected as the core pillar of effective, applicable and acceptable injury prevention in the course of this project. Nevertheless, further safety aspects such as equipment and medical screenings can also be promoted through coaches with good chances of success. Additionally, it was advantageous that in both federations one could already build on certain structures in the field of coaches' education and injury prevention. In Norway there were already joint prevention activities of the Oslo Sport Trauma Research Centre and the Norwegian Handball Federation which were mainly promoted through a website for clubs, coaches and athletes. In the Czech Republic the education of handball coaches is mainly organized by the Faculty of Physical Education and Sport at the Charles University Prague, which is strongly linked to the Coaches' and Methods Commission of the Czech Handball Federation. In both federations injury prevention has not been a regular part of the curriculum so far but there have always been strong interests to propel this issue. In the following, contractual task and conducted activities of the respective federations during the implementation phase are described:

4.2 Partner Agreements, Subcontracts, Tasks and Activities

The detailed tasks of the pilot associations prior to and during the implementation and testing period (1st August 2010 – 30th April 2011) were:

Task 1: Baseline survey among coaches and officials measuring the pre-implementation perception of and attitudes towards injuries as well as knowledge and application of prevention measures.

- Elaboration and translation of the questionnaire provided by RUB
- Distribution of the questionnaire among Czech and Norwegian coaches and officials using multiple channels (hardcopy, email, online)
- Collection of returns and delivery to RUB for analysis

Task 2: Elaboration of draft toolkits of prevention measures and promotion strategies

- Denomination of appropriate experts for online evaluation of the inventory

- Participation in online evaluation of the inventory
- Discussion of the online evaluation results with RUB
- Selection of best measures in view of present demands in Czech and Norwegian handball
- Selection of best promotion strategies in view of present demands in Czech and Norwegian handball

Task 3: Pilot implementation of toolkits

- Implementation of chosen best measures via chosen best promotion strategies in Czech and Norwegian handball
- Reports on progress of pilot implementation to RUB
- Evaluation and refinement of toolkits reflecting experiences during pilot
- Documentation of applied measures and strategies in hardcopy or comparable form (e.g. booklet, brochure, leaflet for athletes and coaches) to guarantee a sustainable benefit for the participating handball federations

Task 4: Follow-up survey among coaches and officials measuring the post-implementation perception of and attitudes towards injuries as well as knowledge and application of prevention measures.

- Elaboration and translation of the questionnaire provided by RUB
- Distribution of the questionnaire among Czech and Norwegian coaches and officials using multiple channels (hardcopy, email, online)
- Collection of returns and delivery to RUB for analysis

Tab.5. Actually executed implementation activities by federation

Task	Activities Czech Republic	Activities Norway
1	Baseline survey among 95 coaches Coaches Seminar (hardcopy) Online distribution	Baseline survey among 267 coaches Coaches Seminar (hardcopy) Online distribution
2	Three handball experts were nominated for the online evaluation. One of them finally took part. Discussion of the base: The coaching education in Czech Handball is well organized but preventive goods are only loosely incorporated and have no regular routine. The development of a regular injury prevention part in the basic education of handball coaches is desirable. Coaches have a strong demand for modern training contents and media. The training area is therefore seen as a good field of injury prevention. Best practices from the online evaluation shall be implemented into the coaching education.	Nine handball experts were nominated for the online evaluation. Four of them finally took part. Discussion of the base: The Norwegian Handball Federation has already been cooperating with the Oslo Sports Trauma Research Centre for a while. Preventive materials exist. A couple of best rated recommendations in the online evaluation stem from the Norwegian area. These materials mainly focus on the prevention of ACL injuries among young female athletes. This has been a core issue for years. Materials are promoted through the webpage skadefri.no. An update of these programmes with further recommended contents from the online evaluation is aspired to enlarge the variety of exercises. Compliance has been a key problem and is intended to be increased. Additional core issues such as shoulder injuries have been determined. Programmes will be developed in a long-term perspective. Reach and use of the existing promotion channels shall be evaluated and optimized. The cooperation between OSTRC and NHF should be strengthened to guarantee sustainability. As aforesaid knowhow exists but NHF sees deficits in promotion and acceptance. In particular the coaches' education shall be reinforced. Beyond that handball magazines and TV sports are identified to present preventive goods to a broader population.

3	Preventive materials have been sighted and seminars on injury prevention including theoretical and practical lessons were developed. These new seminars were tested on multiple occasions. Print and video materials have been produced to document these seminars. Injury prevention is intended to be a fixed issue in the education framework. Thus, policy documents of the official coaches' education curriculum have been changed. The coaches' and methods commission is in charge for the topic injury prevention.	TV spots with basic exercises have been launched during a major international tournament. The use and reach of the webpage skadfri.no as main platform for delivering information has been evaluated. Now there are videos with exercises available which can be ordered on DVD as well. Theoretical and practical lesson were held on multiple occasions. These lessons have been documented on video. A programme for young players was developed containing prevention exercises in combination with technique training, in particular for those crucial movement patterns like jumping and landing. Furthermore, four articles were published in a regular appearing handball magazine. A shoulder prevention campaign is envisaged. The coaches' education in Norway is undergoing a long-term restructuring, which will not be finalized within the project era. However, injury prevention will be a core issue in the new education framework.
4	Follow-up survey among 24 coaches Online distribution only	Follow-up survey among 74 coaches Online distribution only

5. Testing the implementation

The following chapter summarizes the different testing activities which have taken place in the pilot national federations with the intention to measure and evaluate the impact of the actions described in chapter 4. From the beginning of the project “Safety in Sports” it was obvious that due to the limited resources of the collaborating sports federations and the relatively short implementation phase a comprehensive methodical approach of testing was not fully realizable. This would have included

- Surveys (baseline, follow-up) of a representative sample of the affected populations (coaches, athletes, officials
- Surveys of the same population samples in the baseline and follow-up surveys
- Surveys of control groups

In fact, the major tools for testing the impact of the project “Safety in Sports” in the pilot associations have been a baseline survey on coaches at the beginning of the implementation, a follow-up survey on coaches at the end of the implementation and structured interviews with persons in charge of the respective federations during the implementation phase.

Therefore, with the gathered information only trends in awareness and attitude changes as well as potential reach and use of the provided information can be displayed.

5.1 Surveys

Starting with a description of the questionnaires developed and used aggregated results of the surveys are presented. The original questionnaires can be found in the annex.

Baseline survey

The baseline questionnaire consists of three different parts which focus on:

1. Background information about the person:

The questionnaire starts with questions concerning age, gender, nationality and coaching education. Moreover, the respondents are asked to give information about their team / teams (gender, age group, league, sessions/week).

2. Awareness and perception of injuries:

It is of great importance to display the awareness and perception of the injury problem and to detect the actual knowledge of the target group (i.e. coaches) in the field of injury prevention Therefore, this part consists of four questions focusing on the injury awareness, injury causes and prevention in general.

3. Knowledge on and application of prevention measures:

This part revolves around the knowledge on and application of preventive interventions. It consists of nine questions which broach the issue of injury prevention. The respondents are invited to give particulars about:

- How the number of injuries can be reduced
- Which preventive measures they carry out with their teams
- When and how they apply these preventive training measures
- How the players like it
- Whether they as a coach feel familiar and comfortable with applying these preventive training measures
- Whether their players use any other preventive measures
- Whether they know any specific injury prevention programmes
- Whether injury prevention should be integral part of coaches' education
- Whether they need further information about specific injuries and their prevention

4. Federation-specific questions

Additionally, each federation was invited to add questions of specific interest that somehow deal with the topic injuries and/or injury prevention.

The Follow-Up Survey

The Follow-Up Survey was arranged to recognize impact of project activities (e.g. if the participants have changed their opinions concerning basketball injuries and their prevention). The questionnaire consists of ten questions and an additional part which deals with statistical, socio-demographic data.

The follow-up questionnaire can be divided into four parts.

1. Follow-up

The first part of the questionnaire starts with four new questions which ask the respondents if they have already filled in a (baseline) questionnaire, if they have generally received any information and if anything has changed or if they have changed anything within the last twelve months. On account of these four questions it is possible to state if and how the target group was reached.

2. Knowledge on and application of prevention measures

The second part deals with the knowledge and application of prevention measures. Four questions are taken over from the baseline questionnaire. This part will show if the opinion of the coaches have changed concerning contents and frequency of carried out prevention measures, degree of esteem of their players and if they feel familiar and comfortable with applying these preventive training measures (self-efficacy).

3. Awareness and perception of injuries

The third part is about the awareness and perception of injuries. It consists of two questions concerning injury awareness and causes. These two questions are also known from the baseline questionnaire.

4. Background information about the person

At the end of the questionnaire the respondents can give some general information about their person (e.g. age, gender, nationality, coaching education, information about their teams/team).

In the baseline as well as in the follow-up survey most answers are coded as multiple choices capturing the intended range of responses and are replenished with free miscellaneous answer opportunities (short answer text boxes).

Considering the questions which focus on coaches' self-assessment, for example, if injuries are a major issue, if their players like preventive measures and if they feel familiar and comfortable with applying these measures, the Likert-scale, going from one point to five points, is used. In this way the respondents can express their direction and strength of their position towards the issue. In that case the results of the single questions from the baseline and follow-up questionnaire can be easily compared.

Results of the surveys

Norway

Tab.6. Descriptive Statistics of Baseline- and Follow-Up Survey in Norwegian Handball

		Baseline	**Follow-Up**	
			Repetition	Non-repetition
N		267	32	42
Age (average)			36	41
Gender	Male	64%	75%	81%
	Female	36%	25%	19%
Coaching Education	low	64%	40%	33%
	medium	23%	28%	38%
	high	13%	31%	29%
Already filled in a questionnaire	No		0%	100%
	Yes		100%	0%
Information generally	No		0%	7%
	Yes		100%	93%
Information by federation	No		3%	19%
	Yes		97%	81%

Changes	No		44%	48%
	Yes		56%	52%
Prevention (training measures)	Strengthening	80%	94%	85%
	Stretching	62%	63%	59%
	Cool-down	8%	28%	24%
	Warming-up	87%	84%	98%
	Balance training	72%	91%	83%
	Technique training	27%	81%	73%
	Athletic drills	21%	38%	37%
	Coordination exercises	69%	100%	83%
	Mobilisation	26%	72%	78%
Frequency of applied preventive training measures	**Preaseason**			
	Every session	37%	67%	80%
	Once a week	59%	27%	15%
	Less than once a week	4%	7%	5%
	Season			
	Every session	28%	52%	73%
	Once a week	67%	38%	23%
	Less than once a week	5%	10%	5%
Popularity	Dislike it	0%	0%	0%
	Like it less	7%	0%	2%
	Like it medium	41%	34%	44%
	Like it	42%	63%	39%
	Like it very much	9%	3%	15%
Self-evaluation	Need more instruction	3%	0%	0%
	Feel less familiar	8%	3%	2%
	Feel medium familiar	33%	13%	22%
	Feel familiar	32%	53%	54%
	Feel very familiar	24%	31%	22%

Awareness (Injuries as a problem?)	Not important at all	3%	0%	0%
	Less important	9%	13%	7%
	Medium important	41%	25%	29%
	Important issue	40%	41%	41%
	Very important issue	7%	22%	24%
Causes	Bad luck	38%	39%	31%
	Fouls	22%	19%	17%
	Collisions	36%	39%	24%
	Matches	21%	19%	38%
	Regeneration	36%	39%	52%
	Warm-up	55%	32%	26%
	Poor physical condition	63%	68%	83%
	Poor technique	11%	39%	33%
	Poor equipment	13%	0%	2%
	Previous injury	12%	39%	2%

267 coaches filled in the baseline survey and 74 coaches the following-up survey.

Question 1: Have you already filled in a questionnaire on injury prevention in handball within the last twelve months?

From 74 participants in the following-up survey 32 (75% male; 25% female) filled in a questionnaire on injury prevention in handball within the last twelve months.

Question 2: Have you generally received any information about injury prevention in handball within the last twelve months?

Nearly all coaches in the follow-up survey have generally received information.

Question 3: Have you received any information about injury prevention in handball by your federation within the last twelve months?

97% of the repetition group and only 81% of the non-repetition group have received any information about injury prevention by their federation.

Question 4: Has anything changed or have you changed anything since you received these information (e.g. training contents, equipment)?

More than the halves of the repetition and non-repetition group have recognized changes.

Question 5: Which preventive training measures do you carry out with your team?

The three most ticked answer opportunities in the baseline survey are warm-up (87%), strengthening (80%) and balance training (72%). The most given answers of the repetition group in the follow-up survey are coordination exercises (100%),

strengthening (94%) balance training (91%). The most three ticked answer opportunities of the non-repetition group are warm-up (98%), strengthening (85%) and coordination exercises (83%).

Question 6: When and how often do you apply these preventive training measures?

In the baseline survey the coaches often apply these preventive measures once a week in the preseason and season. In contrast to the baseline survey the repetition group and non-repetition group applies these measures more frequently every session in the preseason and season.

Question 7: On a 5-point scale, how do your players like these preventive training measures?

On a five-point-rating scale coaches can assess if their players like these preventive training measures. Most coaches of the baseline and follow-up survey believe that their players like these preventive training measures.

Question 8: On a 5-point scale, do you feel familiar and comfortable with applying these preventive training measures?

32% of the baseline respondents, 53% of the repetition group and 54% of the non-repetition group feel familiar with applying these preventive training measures.

Question 9: On a 5-point scale, do you think injuries are a major issue in handball?

Nearly all respondents, regardless of which survey, recognize injuries as a major issue in handball.

Question 10: What do you see as main causes for handball injuries?

Coaches of the baseline survey see poor physical condition (63%), warm-up (55%) and bad luck (38%) as main causes for handball injuries. The repetition group sees poor physical condition (68%) as prime cause and the non-repetition group regards poor physical condition (83%), lack of regeneration (52%) and too much matches (38%) as principal reasons.

All in all there can be made following core statements:

- Within the last twelve months changes have been recognized.
- There is a trend towards preventive training measures as coordination exercises and strengthening.
- Preventive measures are carried out more frequently.
- Injuries are regarded as problems.

Czech Republic

Tab.7. Descriptive Statistics of Baseline- and Follow-Up Survey in Czech Handball

		Baseline		Follow-Up	
				Repetition	Non-Repetition
N		68	25	9	15
Age (average)		n/a	40	37	39
Gender	Male	81%	68%	100%	80%
	Female	19%	32%	0%	20%
Coaching Education	low	0%	48%	11%	47%
	medium	24%	24%	56%	13%
	high	38%	28%	33%	40%
Already filled in a questionnaire	No			0%	100%
	Yes			100%	0%
Information generally	No			22%	14%
	Yes			78%	86%
Information by federation	No			44%	73%
	Yes			56%	27%
Changes	No			22%	33%
	Yes			78%	67%
Prevention (training measures)	Strengthening	44%	65%	78%	87%
	Stretching	88%	77%	89%	100%
	Cool-down	0%	12%	33%	53%
	Warming-up	97%	73%	100%	100%
	Balance training	25%	50%	67%	53%
	Technique training	0%	31%	67%	47%
	Athletic drills	40%	50%	67%	73%
	Coordination exercises	51%	50%	78%	60%
	Mobilisation	0%	46%	89%	80%

Frequency of applied preventive training measures	**Preaseason**				
	Every session	75%	73%	89%	87%
	Once a week	14%	23%	11%	13%
	Less than once a week	8%	4%	0%	0%
	Season				
	Every session	71%	20%	50%	60%
	Once a week	21%	80%	50%	33%
	Less than once a week	8%	0%	0%	7%
Popularity	Dislike it	1%	4%	0%	0%
	Like it less	19%	19%	11%	13%
	Like it medium	57%	62%	44%	47%
	Like it	16%	15%	44%	20%
	Like it very much	6%	0%	0%	20%
Self-evaluation	Need more instruction	n/a	4%	0%	0%
	Feel less familiar		0%	0%	0%
	Feel medium familiar		12%	11%	27%
	Feel familiar		62%	56%	47%
	Feel very familiar		23%	33%	27%
Awareness (Injuries as a problem?)	Not important at all	0%	0%	0%	0%
	Less important	0%	0%	0%	0%
	Medium important	7%	0%	0%	0%
	Important issue	36%	27%	22%	13%
	Very important issue	57%	73%	78%	87%

Causes	Bad luck	28%	15%	22%	27%
	Fouls	49%	35%	11%	40%
	Collisions	0%	50%	67%	33%
	Matches	4%	4%	11%	0%
	Regeneration	54%	62%	78%	53%
	Warm-up	82%	27%	33%	27%
	Poor physical condition	62%	35%	56%	60%
	Poor technique	0%	8%	11%	7%
	Poor equipment	0%	8%	11%	7%
	Previous injury	0%	23%	11%	40%

93 coaches filled in the baseline survey and 24 coaches participated in the follow-up survey. 9 of these 24 coaches had already participated in the baseline survey.

Question 1: Have you already filled in a questionnaire on injury prevention in handball within the last twelve months?

9 coaches (100% male) of the follow-up survey had also participated in the baseline survey. There were also 15 coaches (male 80%; female 20%) who filled in the follow-up survey without participating in the baseline survey.

Question 2: Have you generally received any information about injury prevention in handball within the last twelve months?

From those coaches who had also filled in the baseline survey 78% and 86% who had not filled in the baseline survey have generally received any information about injury prevention within the last twelve months.

Question 3: Have you received any information about injury prevention in handball by your federation within the last twelve months?

56% of the repetition group and only 27% of the non-repetition group have received any information about injury prevention by their federation.

Question 4: Has anything changed or have you changed anything since you received these information (e.g. training contents, equipment)?

78% of the repetition group and 67% of the non-repetition group have recognized changes.

Question 5: Which preventive training measures do you carry out with your team?

The three most ticked answer opportunities in the first baseline survey are warm-up (97%), stretching (88%) and coordination exercises (51%). The most commonly ticked answers in the second baseline survey are stretching (77%), warm-up (73%) and strengthening (65%). The most given answers of the repetition group in the follow-up survey are warm-up (100%), stretching and mobilization (both 89%). The most three

ticked answer opportunities of the non-repetition group are stretching and warm-up (both 100%) and strengthening (87%).

Question 6: When and how often do you apply these preventive training measures?

The coaches often apply these preventive measures every session in the pre-season. Only a few of them apply it once a week and less than once a week in the preseason. In the season they also apply these preventive measures every session. But in contrast to the preseason they apply it more often once a week.

Question 7: On a 5-point scale, how do your players like these preventive training measures?

On a five-point-rating scale coaches can assess if their players like these preventive training measures. More than the half of coaches in the baseline survey, 44% of the repetition group and 47% of the non-repetition group cannot really assess the popularity of these measures by their players. But approximately 30% of the respondents of the baseline survey and 40% of the non-repetition group believe their players like it. Considering the repetition group (44%) even believe their players like it.

Question 8: On a 5-point scale, do you feel familiar and comfortable with applying these preventive training measures?

23% of the baseline respondents, 33% of the repetition group and 27% of the non-repetition group feel familiar with applying these preventive training measures.

Question 9: On a 5-point scale, do you think injuries are a major issue in handball?

Nearly all respondents, regardless of which survey, recognize injuries as a major issue in handball.

Question 10: What do you see as main causes for handball injuries?

Coaches of the first baseline survey see warm-up (82%), poor physical condition (62%) and lack of regeneration (54%) as main causes for handball injuries. In the second baseline survey lack of regeneration (62%), collision (50%), fouls and poor physical condition (both 35%) are the most given answers. The repetition group sees regeneration (78%), collisions (67%) and poor physical condition (56%) as prime causes. The non-repetition group regards poor physical condition (60%), lack of regeneration (53%) and poor equipment and previous injuries (both 40%) as principal reasons.

All in all there can be made following core statements:

- Within the last twelve months changes have been recognized.
- There is trend towards prevention measures as warming-up, mobilization and stretching.
- Preventive training measures are carried out more frequently.
- Injuries are regarded as problems.

5.2 Structured interviews

The interview consists of nineteen questions and can be divided into four parts. Detailed original forms of the interviews can be found in the annex.

1. Personal data

   In the first part of the interview general data as name, organization, country, function, date/time and age of the expert was written down.

2. Implementation

   The second part consists of twelve questions and mainly focuses on the implementation aspect. First of all, the experts were asked to give an overview about activities which were actually conducted in the different fields of injury prevention. In the next step they should mention which target groups have been addressed by the implementation and if relevant features (age; gender; level) have been identified. Moreover, questions followed whether they believe if they have reached their target group, the chosen activities are accepted, the preventive measures adapted and the benefits of the project “Safety in Sports” clearly recognized for the target group.

3. Project: “Safety in Sports”

   The third part focuses on the project “Safety in Sports”. The experts were asked whether

   - they understand the spirit and purpose of the project
   - the issue injury prevention existed before the project started
   - the area was strengthened through the project
   - they have recognized any effects through the project

4. Improvement

   In this last part of the interview the experts can give their opinion if they think the project was necessary, if they are satisfied with the supervision and have any suggestions for improvement.

The interview was structured through the above mentioned conversation guide. This conversation guide conduces as structure and orientation guide during the interview. Compared to a survey an interview is characterized through more frankness, flexibility and the response options are indefinite. The interviewed experts from the two different associations (Slovakia; Sweden) were videotaped. An advantage of videotaping is that the conversation and its content can be later inspected and can serve as basis for evaluation. The interview takes approximately 60-90 minutes.

Interview: Norwegian Handball Federation

I. PERSONAL DATA

The “Safety in Sports” interview was conducted with Grethe Myklebust from the Norwegian Handball Federation in Oslo.

II. IMPLEMENTATION

1. What activities were actually conducted in which field of injury prevention?

In the different fields of injury prevention following activities were conducted:

Firstly, seminars about injury prevention were offered especially for coaches possessing the coaching license 4. Secondly, a program for young players was developed containing many exercises for preventing injuries and learning to use the right technique. Further conducted activities are, on the one hand, the publication of articles in a regular appearing handball magazine and, on the other hand, the provision of coaches and players with current information about prevention through the website *skadefri*. On the website *skadefri* there are videos with exercises available and those exercises are disposable on DVD as well. Considering the different activities no specific target group was addressed. The sooner the education of young players starts, the higher their awareness of injuries can be. It is, furthermore, essential not only to lecture the target group about injury prevention but to emphasize on using preventing exercises with regard to improve the performance. There is no direct feedback if players and coaches use the exercises continuously but the knowledge exists that they are aware of the website *skadefri* and visit it regularly. If the chosen activities are really accepted by the target group is impossible to answer. On the one hand there are some coaches who understand the importance of injury prevention and use it to get their players in a better constitution. But, on the other hand, there are also some coaches especially elderly ones who are not using it. The chosen exercises are tailored up to the age and performing level of a player. To sum it up injury prevention is somehow a regular routine in the Norwegian education system but the issue of injury prevention varies from year to year.

In the light of the project “Safety in Sports” its benefits are clearly recognized for the target group and in coaching level 4 the focus will be put more on injury prevention. All in all the results are satisfying but the European Association should pay more attention to injury prevention.

III. PROJECT: “SAFETY IN SPORTS”

Considering the project “Safety in Sports” the spirit and purpose is currently quite clear but at the beginning of the project it was really confusing and not understood. Before the project started the issue injury prevention existed but the area was strengthened so that effects for instance the increase of injury awareness has been recognized.

IV. IMPROVEMENT

If the project “Safety in Sports” was necessary is uncertain. But the awareness of injury prevention has been increased and this is a positive effect which is recognized through the project. The supervision was highly satisfying. Suggestions for

improvement deal on the one hand with the evaluation which should be more transparent, for instance, by using definite questions. On the other hand the exchange of emails to explain the next project step should be in an easier language because the writing was sometimes too formal and precise and therefore difficult to understand.

Interview: Czech Handball Federation

I. PERSONAL DATA

The interview was conducted with Jakub Pokorny working as a coaches' instructor in the Czech Handball Federation.

II. IMPLEMENTATION

In the field of injury prevention following activities were actually conducted:

- Record of general knowledge
- Education of trainers
- Preparation of print materials.
-

Moreover, there was no specific recommendation for a target group. They think that they reached their target group because the opportunity for trainer education has been improved. The chosen activities were accepted and trainers really like those activities. On account of positive feedback from trainers, they think the preventive measures are suitable for the target group. The benefits of the project are recognized because there are more learning opportunities for trainers. For instance video materials were developed through the project. The activities will still be there upon the project's completion if there are enough available resources. How much expenditures they have invested is hard to answer because the invested expenditures of each member vary. Moreover, they are fully satisfied with the results because their expectations were fulfilled. In their opinion the European association does not play an important role because they did not participate in the project.

III. PROJECT: "SAFETY IN SPORTS"

The spirit and purpose of the project are understood. The issue injury prevention existed before the project started. But this area was strengthened through the project because there are currently more learning opportunities for trainers. To recognize any effects through the project, more time is needed.

IV. IMPROVEMENT

The project was necessary because all project targets on preventing injuries are generally essential. The supervision was really good through the project time. It is suggested to arrange a meeting of all participating organizations. This can be used for an intensive discussion.

6. Synopsis & Recommendations

This final chapter will give a comprehensive summary on general (methodical) steps and essential activities in the framework of developing and implementing “Safety Management Schemes” in European handball. Based on experiences made during the pilot implementations, recommendations on basic (administrative) requirements, promising fields of prevention, potential areas for refinement and improvement as well as opportunities to integrate, maintain and sustain “Safety Management Schemes” within the European Handball Federation and/or its attached national member federations are discussed.

6.1 General Aspects

Despite injuries being an apparent problem in sports communities, injury prevention still seems far away from being a high-priority issue. Injury prevention or prevention in general has a sensible negative perception as it is often connected with renunciation of joy and freedom. With regard to the sports sector prevention is frequently seen as therapeutic intervention that needs extra effort with no relation to the practiced sport. The fact that a sports injury is mainly a consequence of definable risk factors is not common knowledge. Still a large share of the sports community sees bad luck as main cause for getting injured. Indeed, today not only experts in public health but common people know the relation between physical inactivity or malnutrition and cardiovascular diseases. In the field of sports, the relation between certain risk factors and increased injury incidences has not fully reached public awareness. In the light of these considerations it is an ambitious aim to sustainably implement safety management schemes into sports communities. To reach this objective anyway, on the one hand, it is absolutely necessary to increase the perception of sports injuries as more or less predictable incident rather than individual bad luck. On the other hand, one has to facilitate the fact that the probability of suffering an injury is depending on personal intrinsic and/or sport-specific extrinsic risk factors. Finally, to compensate the perceived restrictions in practicing sports through preventive interventions (e.g. modified training) it is of vital importance to promote these contents as contributions to individual performance enhancement. In fact, this is more or less an inevitable marketing ploy to increase the long-term compliance of preventive interventions, in particular when directly approaching coaches, clubs and federations. In case of preventive training & physical preparation it has become obvious that exercises that reduce the frequency and/or the severity of injuries and that propel sport-specific performance parameters at the same time have best chances of getting accepted. Moreover, successful and sustainable sports injury prevention has to be effective, applicable and acceptable at once.

6.2 Safety Management Schemes in Handball

As already mentioned in previous chapters of this report and in the preceding reports D2b & D5, safety management schemes in sport, by definition, consist of specific prevention measures (detailed contents), which are disseminated and implemented by an appropriate (safety) promotion strategy. The following summarized and quite general recommendations on prevention measures and safety promotion strategies derive from the applied methodology of the project “Safety in Sports”.

6.2.1 Prevention Measures

In fact, the herewith proposed prevention measures are based on

- The inventory of existing prevention measures in handball (D2b)
- The evaluation and ranking of these prevention measures by acknowledged (handball) experts (D5) and
- The specific demands, needs and resources of the participating pilot federations

Thus, they have solid proof to be effective in preventing injuries, to be applicable in the respective sports setting and to find favor (acceptance) within the handball community.

6.2.1.1 Training & Physical Preparation

Basic Physical Preparation

Dynamics in handball have significantly increased. To meet the demands of the current game play and furthermore to prevent injuries due to fatigue, insufficient regeneration or athletic mismatching, players of all levels and ages need a proper basic athletic condition with regard to endurance, strength, flexibility and speed. On competitive level this is primarily achieved through structured and supervised athletic conditioning programmes that include individually adapted endurance training, functional weight training, dynamic mobilization and agility drills. Key period for basic physical preparation is during preseason but to stay physically in shape season attending programmes are clearly recommended. Athletes in bad athletic condition are significantly more vulnerable for acute injuries and in particular for developing overuse symptoms like jumper’s knee, low back pain and shoulder pain.

Structured Warm-up Routines

General cardiovascular activation for 10-20 minutes prior to handball sessions is essential. This is common knowledge. However, warm-up sessions are still in great need of improvement as they are perfectly suited for implementing preventive training contents. Beside basic running drills it is strongly recommended to apply neuromuscular, proprioceptive and balance exercises as well as core stabilization and coordination practices. Additionally, plyometrics and agility drills should be included at the end of warming up. Basic handball movement patterns that are linked to increased injury risks can be trained perfectly during warm-ups. This means adding technique exercises that are designed to improve knee and ankle control

during jumping, landing and cutting activities. The big advantages of structured warm-up sessions that include the above mentioned elements are, first, that you do not need to spend lots of extra time on preventive training. Second, warm-up is a regular routine in training and competition and all the aforesaid elements need regularity to have a preventive effect.

Basic and Advanced Technique Training

Handball includes crucial movement patterns that, on the one hand, are of highest importance for the athlete's game performance but, on the other hand, bears an increased injury risk. Main idea behind technique training is to improve player's performance in typical handball elements. Good jumping capability is essential for shooting and blocking. Quick feet are needed for feints, direction changes, turns, starts and stops in defense and offense. Good ball handling helps you passing, catching, dribbling and stealing. However, technique training is also needed to perform these tasks safer because these techniques also bear an increased injury risk. Proper jumping and landing technique in terms of knee and ankle control help athletes to sustain crucial situations like single-leg landings. Correct ball handling is an important factor to prevent numerous finger sprains and quick and controlled feet assist in coping pivoting movements. Technique training, if already applied starting with young ages, combines performance enhancement and aspects of injury prevention. Athletes and coaches should be aware of the correct techniques and potential consequences of insufficient technique training. With increasing age and performance level technique training should be adapted to the advanced demands of the athletes. This means for example, progressively adding controlled perturbations (contact) during execution of these movement patterns. Intense physical contact is inherent element of handball and players should get used to it in training to cope with it during competition. Basically, this also helps athletes performing better e.g. better scoring efficiency during contested jump shots (e.g. wing shots, breakthrough shots)

Neuromuscular Training

There is clear scientific evidence that neuromuscular training by means of proprioceptive balance training contributes to the reduction of injuries of the lower limbs. Exercises on unstable devices such as wobble boards, slings or mats in combination with core stabilization and plyometrics are helpful when conducted regularly (at least 1-2 times per week) during preseason and season. Neuromuscular training contents can be perfectly integrated into warm-up routines, in particular with regard to the fact that this kind of training has bigger effects in non-fatigued athletes.

6.2.1.2 Technical and Political Approaches

Increase of Awareness

The awareness of the injury problem and the perception of prevention as a positive contribution to sports performance is a key issue. Individual athletes and coaches on the handball floors, and moreover, clubs and federations on policy level are main target groups for detailed information on handball-specific injuries, risk factors, injury

situations and mechanisms as well as solid knowledge on effective, applicable and acceptable countermeasures.

Adaptation of the Education Framework

Athletes and in particular coaches should receive at least a basic education in handball injury prevention. Safety management schemes should be fixed parts of the education framework.

Reduction of Matches

Match incidences are significantly higher compared to training incidences. On professional level, a revision of the competition schedule could help to shrink the dramatic number of injuries during and immediately after international competitions. At least a better arrangement of national and international competitions is desirable. Sufficient regeneration will reduce overuse symptoms and acute injuries due to fatigue or inadequate cured disorders.

6.2.1.3 Equipment & Facilities

Mouth Guards

There is a certain risk for dental and orofacial injuries as well as concussions. When occurring they are mostly of severe nature. It is therefore strongly recommended that handball players, in particular pivot and backcourt players should wear custom-made mouth guards. Custom-made mouth guards have shown to prevent dental and orofacial fractures.

External Ankle Support

It is evident that ankle sprains are at least partially preventable when athletes use ankle braces, orthoses or taping as external protection. Especially, players with a history of ankle injuries should be advised to use external ankle support to prevent recurring injuries.

6.2.1.4 Medical & Non-medical Support

Pre-Season Screenings:

At least for professional athletes it is recommended to have regular pre-season screenings to detect potential risk factors for injuries or damages e.g. cardiovascular diseases, muscular imbalances, athletic and neuromuscular deficits. Moreover, performance diagnostics that identify the athletes' individual needs for improvement can assist in increasing physical condition and general performance and thus contribute to reducing acute and chronic injuries. A supervision of the athlete by athletic coaches and /or physiotherapists is seen as beneficial.

6.2.2 Promotion Strategies

The following general recommendations on how to promote the above mentioned prevention measures have shown to allow a smooth implementation in the tested sports communities.

Information:

The federation's task is to publish the corresponding information without being advised from the media.

This might be particularly useful with a simultaneously distribution of preventive material. To provide athletes directly with information about injury prevention, it is necessary to produce a clipped and illustrated brochure and video clips which screen exercises that can be downloaded on the national federations' and or EHF's websites.

For the respective handball association it is also possible to distinguish itself with promoting preventive contents, to propagate it in the sense of marketing and that within the meaning of optimizing the performance, promoting health and the physical, social and cognitive development in particular of youth.

Education

Considering the education two different modules should be regarded. Firstly, it is possible to implement an education module "Injury Prevention" which contains theoretical and practical elements and which is directly addressed to the coaches. If national associations want to use the educational module in their trainer education, it has to be translated into the national language.

Secondly, there might be a disseminator's education module which focuses on trainer education. Triggering this kind of education "snowball effect" allows to reach larger populations.

Integration into coaches' certification of all levels and license renewal is desirable. Therefore the issue "Injury Prevention" has to become a fixed element in the education framework.

To accomplish that it is useful to prepare an applicable job advertisement or description for an official staff member. At best only one person is primarily concerned with this issue. Most commonly it might be the one who is also responsible for the trainer education.

6.3 Recommendations for Future Work

The following chapter reflects experiences that have been made during the test implementation in Czech and Norwegian Handball. Moreover, it lists aspects, which, firstly, have been recognized as key issues for implementing safety management schemes in handball, and, secondly, potential solutions for encountered problems.

The following considerations may serve as useful advices for further implementation approaches in European handball (e.g. other national handball federations).

Problem: National Sports Federations have different capacities and organizational structures, which may influence the progress in implementing safety management schemes.

Solution: It is essential to scan the available capacities and structures of each and every federation. The identification of persons in charge within the federations which accompany and propel the issue injury prevention is a clear core issue. This may even lead to an outsourcing of tasks and responsibilities to federation-affiliated institutions and experts (e.g. University of Prague, Faculty of Sport and Physical Education, Oslo Sports Trauma Research Centre). Furthermore, realistic planning - particularly in terms of time - is absolutely elementary. Moreover, a top-down approach (e.g. winning over high-level decision makers as supporters) can help to accelerate the progress of implementation in a setting which is typically occupied with multiple topics (e.g. game operations, talent diagnostics, national teams).

Problem: Sports communities and federations may have different “languages” and phrasing compared to science-related persons

Solution: Sport-specific language and phrasing in all ways of communication as well as contents and materials that have been adapted to the specific needs and demands of respective target groups, even if this means to use different communication channels and promotional materials for athletes, coaches, officials, clubs and federations.

Problem: Different philosophies and know-how regarding injuries and injury prevention

Solution: Detection of the actual state of knowledge in the respective federation. Seizing existing prevention approaches and available national know-how as fundament for implementation. One has to consider that there might already be thematic emphasis on specific issues (e.g. knee injuries) and that there are different national philosophies (e.g. obligation vs. voluntariness in education) in conveying diverse information (e.g. webpages, education modules, print material).

Problem: Low acceptance and compliance of prevention measures and promotion strategies in the dedicated target group

Solution: Adaptation of the chosen prevention measures and promotion strategies according the target groups’ requirements (e.g. age, performance level) and needs (e.g. performance enhancement, health aspects). The target group which is going to use the measures and which is addressed with the promotion strategy should be involved in the process of developing the measures and strategies itself. This also means to make all stages of implementation as transparent as possible (e.g. process of choosing the best suiting prevention measures and promotion strategies for each national federation).

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Appendix

A. Letters of Intents & Subcontracts

X:\Methods\UniversityCooperation\LetterofIntentSafetyinSports.doc

To: Ruhr-University Bochum
Department of Sports Medicine and Sports Nutrition
Faculty of Sports Science
Attn.: Dr. rer. Nat. Thomas Henke

Vienna, 22 October 2007

EU Project „Safety in Sports“ – EHF Letter of Intent

Dear Dr. Henke,

With reference to your letter dated 2 October, 2007 we are very pleased to inform you that the European Handball Federation (EHF) intends to take part in the EU Project “Safety in Sports” (2008-1010) as described in your project outline submitted to us, since safety and injury prevention in handball have become major issues in the development of our sport as well as an important matter for EHF deliberations in the future. At the same time we do hope that UEFA will also join the project, because cooperation of team sport associations in Europe seems to be essential in terms of networking concerning technical and promotional questions.

Based on a proposal of both EHF Technical Commissions, the EHF Methods Commission (presided over by Frantisek Taborsky/chairman) and the EHF Competitions Commission (presided over by Jan Tuik/chairman), a respective decision was taken by the EHF Executive Committee in their meeting in Rome/ITA on 12 October 2007.

Furthermore it has been proposed to invite two national EHF member federations, the Czech Handball Federation/CZE and the Norwegian Handball Federation/NOR for taking part in the project as cooperation partners, since both federations have been actively involved in dealing with the topics mentioned over the past years.

Regarding details on the project itself as well as the further procedure please contact the EHF Office (Helmut Höritsch/BG Corporate Development – Tel.: +43-1-80151-155, Fax: +43-1-80151-149, e-mail: hoeritsch@eurohandball.com) !

We are looking forward to further information as well as an efficient cooperation in this matter and remain with

Best regards

EUROPEAN HANDBALL FEDERATION
Michael Wiederer
Secretary General



Copies: EXEC, MC, CC, CZE, NOR

PARTNER AGREEMENT

for the pilot implementation and testing of safety management schemes in Norwegian Handball

PARTNERS IN THIS AGREEMENT ARE:

- The European Association for Injury Prevention and Safety Promotion, Amsterdam, Netherlands (EuroSafe), as leader of work package 2 of the project "Safety in Sports" and formal orderer,
- The Ruhr University Bochum, Department of Sports Medicine and Sports Nutrition, Bochum, Germany (RUB), as leader of work package 6 of the project "Safety in Sports" and advisor, and
- The Norwegian Handball Federation, Oslo, Norway (NHF), as project partner regarding the pilot implementation and testing of safety management schemes in Norwegian Handball and formal contractor.

BACKGROUND AND PURPOSE:

Agreement between the European Association for Injury Prevention and Safety Promotion, Amsterdam, Netherlands (EuroSafe), as leader of work package 2, the Ruhr University Bochum, Department of Sports Medicine and Sports Nutrition, Bochum, Germany (RUB), as leader of work package 6 and the Norwegian Handball Federation, Oslo, Norway (NHF), as project partner regarding the pilot implementation and testing of safety management schemes in Norwegian Handball.

The project "Safety Management in High Risk Sports in Collaboration with European Sports Associations" ("Safety in Sports") has been contracted with the Executive Agency for Health and Consumers (EAHC) by the Austrian Road Safety Board, Vienna, Austria (KfV), as leader of the project consortium. The project has been accepted for co-funding in the framework of the EU Health Programme 2008-2013, work plan 2007. The project is scheduled for October 2008 to September 2011. It is divided into several work packages, for which the consortium members, main beneficiary and associated beneficiaries, are responsible. The collaborating European Sports Federations are the European Handball Federation (EHF) and the European Basketball Federation (FIBA Europe).

Work package 6 generally aims at implementing and testing of safety management schemes in handball and basketball. It is led by RUB. In this specific context implementation means that chosen elements of the elaborated injury prevention measures and promotion strategies from work package 5 become documented parts in Norwegian Handball. The perception of potential changes in awareness of and attitudes towards injuries and their prevention will be tested with the help of questionnaire based baseline and follow up surveys in Norwegian Handball.

Selecting, coaching and supervising the national pilot handball and basketball associations in implementing and testing safety management schemes will be done by RUB as part of their responsibility for work package 6. Refund for successful implementation and test will be provided by EuroSafe.

AGREEMENT:

In accordance with the "Safety in Sports" grant agreement, work plan, budget and EAHC guidelines for subcontracting, the partners agree on the following:

1) RESPONSIBILITIES AND TASKS OF THE NORWEGIAN HANDBALL FEDERATION DURING IMPLEMENTATION AND TESTING PERIOD (1st August 2010 – 30th April 2011)

Task 1: Baseline survey among coaches and officials measuring the pre-implementation perception of and attitudes towards injuries as well as knowledge and application of prevention measures.

FINALISATION: latest by 15th October 2010

- Elaboration and translation of the questionnaire provided by RUB
- Distribution of the questionnaire among Norwegian coaches and officials using multiple channels (hardcopy, email, online)
- Collection of returns and delivery to RUB for analysis

Task 2: Elaboration of draft toolkits of prevention measures and promotion strategies

FINALISATION: latest by 15th October 2010

- Denomination of appropriate experts for online evaluation of the inventory
- Participation in online evaluation of the inventory (latest by 15th July 2010)
- Discussion of the online evaluation results with RUB
- Selection of best measures in view of present demands in Norwegian Handball
- Selection of best promotion strategies in view of present demands in Norwegian Handball

Task 3: Pilot implementation of toolkits

FINALISATION: latest by 28th February 2011

- Implementation of chosen best measures via chosen best promotion strategies in Norwegian Handball
- Reports on progress of pilot implementation to RUB
- Evaluation and refinement of toolkits reflecting experiences during pilot
- Documentation of applied measures and strategies in hardcopy or comparable form (e.g. booklet, brochure, leaflet for athletes and coaches) to guarantee a sustainable benefit for Norwegian Handball

Task 4: Follow-up survey among coaches and officials measuring the post-implementation perception of and attitudes towards injuries as well as knowledge and application of prevention measures.

FINALISATION: latest by 30th April 2011

- Distribution of the questionnaire among Norwegian coaches and officials using multiple channels (hardcopy, email, online)
- Collection of returns and delivery to RUB for analysis

NHF is entitled and encouraged to make further use of experiences with safety management in sports associations, made during the collaboration in this project. NHF may further implement, modify and disseminate results developed with her contribution. Nevertheless, legal demands for the protection of copyrights of project products are to be observed. Any communication or publication about the project and its results, including at a conference or seminar, should indicate that the project and its results have received funding from the European Community.

NHF will take care of eventually requested taxes or social security fees. NHF will claim the compensation not later than 31st August; otherwise the claim becomes obsolete.

Organisations in charge: Norwegian Handball Federation (NHF)
Oslo Sports Trauma Research Centre (OSTRC)

Persons in charge: Mrs. Kari Aagaard, NHF, Leader of Sports Department
Grethe Myklebust, PhD, OSTRC, Assistant Professor

2) RESPONSIBILITIES AND TASKS OF THE RUHR UNIVERSITY DURING IMPLEMENTATION AND TESTING PERIOD (1st August 2010 – 30th April 2011)

RUB acts as agent for EuroSafe and supervisor. RUB will provide the Norwegian Handball Federation with expert advice and coaching services as needed for the fulfilment of the tasks mentioned and will assess completeness, quality and timeliness of the contractual tasks. RUB will also assist with the payment request to the EuroSafe. Bank account for financial transaction is to be officially stated by NHF.

3) RESPONSIBILITIES AND TASKS OF EUROSAFE DURING IMPLEMENTATION AND TESTING PERIOD (1st August 2010 – 30th April 2011)

For the completion of the tasks listed, a compensation of € 6,199.- is granted including taxes eventually payable in Norway. This sum cannot, not under any circumstances, be exceeded. Prerequisite for any payment is the timely fulfilment of the agreed tasks, and the acceptance of the contracted documentation (deliveries) by RUB. 50% of the payment is done within three weeks after signing of the agreement and 50% within three weeks after completion of the tasks.

4) FINAL CLAUSES

The contract shall be governed exclusively by Dutch law. Agreed exclusive place of jurisdiction shall be the responsible court in Amsterdam. Eventual amendments to this contract require written form, also a waiver of written form. If a clause of this agreement should turn out as invalid, the validity of the rest remains unaffected. An invalid clause will be replaced by another one with the same effect.

Signatures:

[NHF] [EuroSafe] [RUB]

NORWEGIAN HANDBALL FEDERATION

dr. W.H.J. Ruigrok
secr.gen. EuroSafe
7/9/2010

Dr. Thomas Henke

Date: 12/8-10

Ruhr-Universität Bochum
Fakultät für Sportwissenschaft
Lehrstuhl für
Sportmedizin und Sporternährung
Overbergstr. 19, D-44801 Bochum
Tel.: 02 34/32-2 40 99
Fax: 02 34/32-1 43 23

AMENDMENT TO PARTNER AGREEMENT

for the pilot implementation and testing of safety management schemes in Norwegian Handball

The Norwegian Handball Federation has officially announced Mrs. Kari Aagaard (Leader of Sports Department) and Mrs. Grethe Myklebust, PhD (Assistant Professor) from Oslo Sports Trauma Research Centre as responsible persons in charge for execution of agreed project tasks and equal recipients of financial funding.

Signatures:

[NHF] [EuroSafe] [RUB]

Date: 12/8 -10 7/9/2010

Dr. Thomas Henke
Ruhr-Universität Bochum
Fakultät für Sportwissenschaft
Lehrstuhl für
Sportmedizin und Sporternährung
Overbergstr. 19, D-44801 Bochum
Tel.: 02 34/32-2 40 99
Fax: 02 34/32-1 43 23

PARTNER AGREEMENT

for the pilot implementation and testing of safety management schemes in Czech Handball

PARTNERS IN THIS AGREEMENT ARE:

- The European Association for Injury Prevention and Safety Promotion, Amsterdam, Netherlands (EuroSafe), as leader of work package 2 of the project "Safety in Sports" and formal orderer,
- The Ruhr University Bochum, Department of Sports Medicine and Sports Nutrition, Bochum, Germany (RUB), as leader of work package 6 of the project "Safety in Sports" and advisor, and
- The Czech Handball Federation, Prague, Czech Republic (CHF), as project partner regarding the pilot implementation and testing of safety management schemes in Czech Handball and formal contractor.

BACKGROUND AND PURPOSE:

Agreement between the European Association for Injury Prevention and Safety Promotion, Amsterdam, Netherlands (EuroSafe), as leader of work package 2, the Ruhr University Bochum, Department of Sports Medicine and Sports Nutrition, Bochum, Germany (RUB), as leader of work package 6 and the Czech Handball Federation, Prague, Czech Republic (CHF), as project partner regarding the pilot implementation and testing of safety management schemes in Czech Handball.

The project "Safety Management in High Risk Sports in Collaboration with European Sports Associations" ("Safety in Sports") has been contracted with the Executive Agency for Health and Consumers (EAHC) by the Austrian Road Safety Board, Vienna, Austria (KfV), as leader of the project consortium. The project has been accepted for co-funding in the framework of the EU Health Programme 2008-2013, work plan 2007. The project is scheduled for October 2008 to September 2011. It is divided into several work packages, for which the consortium members, main beneficiary and associated beneficiaries, are responsible. The collaborating European Sports Federations are the European Handball Federation (EHF) and the European Basketball Federation (FIBA Europe).

Work package 6 generally aims at implementing and testing of safety management schemes in handball and basketball. It is led by RUB. In this specific context implementation means that chosen elements of the elaborated injury prevention measures and promotion strategies from work package 5 become documented parts in Czech Handball. The perception of potential changes in awareness of and attitudes towards injuries and their prevention will be tested with the help of questionnaire based baseline and follow up surveys in Czech Handball.

Selecting, coaching and supervising the national pilot handball and basketball associations in implementing and testing safety management schemes will be done by RUB as part of their responsibility for work package 6. Refund for successful implementation and test will be provided by EuroSafe.

AGREEMENT:

In accordance with the "Safety in Sports" grant agreement, work plan, budget and EAHC guidelines for subcontracting, the partners agree on the following:

1) RESPONSIBILITIES AND TASKS OF THE CZECH HANDBALL FEDERATION DURING IMPLEMENTATION AND TESTING PERIOD (1st August 2010 – 30th April 2011)

Task 1: Baseline survey among coaches and officials measuring the pre-implementation perception of and attitudes towards injuries as well as knowledge and application of prevention measures.

FINALISATION: latest by 15th October 2010

- Elaboration and translation of the questionnaire provided by RUB
- Distribution of the questionnaire among Czech coaches and officials using multiple channels (hardcopy, email, online)
- Collection of returns and delivery to RUB for analysis

Task 2: Elaboration of draft toolkits of prevention measures and promotion strategies

FINALISATION: latest by 15th October 2010

- Denomination of appropriate experts for online evaluation of the inventory
- Participation in online evaluation of the inventory (latest by 15th July 2010)
- Discussion of the online evaluation results with RUB
- Selection of best measures in view of present demands in Czech Handball
- Selection of best promotion strategies in view of present demands in Czech Handball

Task 3: Pilot implementation of toolkits

FINALISATION: latest by 28th February 2011

- Implementation of chosen best measures via chosen best promotion strategies in Czech Handball
- Reports on progress of pilot implementation to RUB
- Evaluation and refinement of toolkits reflecting experiences during pilot
- Documentation of applied measures and strategies in hardcopy or comparable form (e.g. booklet, brochure, leaflet for athletes and coaches) to guarantee a sustainable benefit for Czech Handball

Task 4: Follow-up survey among coaches and officials measuring the post-implementation perception of and attitudes towards injuries as well as knowledge and application of prevention measures.

FINALISATION: latest by 30th April 2011

- Distribution of the questionnaire among Czech coaches and officials using multiple channels (hardcopy, email, online)
- Collection of returns and delivery to RUB for analysis

CHF is entitled and encouraged to make further use of experiences with safety management in sports associations, made during the collaboration in this project. CHF may further implement, modify and disseminate results developed with her contribution. Nevertheless, legal demands for the protection of copyrights of project products are to be observed. Any communication or publication about the project and its results, including at a conference or seminar, should indicate that the project and its results have received funding from the European Community.

CHF will take care of eventually requested taxes or social security fees. CHF will claim the compensation not later than 31st August; otherwise the claim becomes obsolete.

Organisations in charge: Czech Handball Federation (CHF)
Charles University Prague, Faculty of Physical Education and Sport (CUP)

Persons in charge: Mr. Martin Tůma, PhD, CHF, President of Coaches' & Methods Commission
Prof. Frantisek Táborský, PhD, Csc., CUP, Associate Professor
Mgr. Jakub Pokorný, CUP, Czech Coaches' Lecturer

2) RESPONSIBILITIES AND TASKS OF THE RUHR UNIVERSITY DURING IMPLEMENTATION AND TESTING PERIOD (1st August 2010 – 30th April 2011)

RUB acts as agent for EuroSafe and supervisor. RUB will provide the Czech Handball Federation with expert advice and coaching services as needed for the fulfilment of the tasks mentioned and will assess completeness, quality and timeliness of the contractual tasks. RUB will also assist with the payment request to the EuroSafe. Bank account for financial transaction is to be officially stated by CHF.

3) RESPONSIBILITIES AND TASKS OF EUROSAFE DURING IMPLEMENTATION AND TESTING PERIOD (1st August 2010 – 30th April 2011)

For the completion of the tasks listed, a compensation of € 6,199.- is granted including taxes eventually payable in the Czech Republic. This sum cannot, not under any circumstances, be exceeded. Prerequisite for any payment is the timely fulfilment of the agreed tasks, and the acceptance of the contracted

documentation (deliveries) by RUB. 50% of the payment is done within three weeks after signing of the agreement and 50% within three weeks after completion of the tasks.

4) FINAL CLAUSES

The contract shall be governed exclusively by Dutch law. Agreed exclusive place of jurisdiction shall be the responsible court in Amsterdam. Eventual amendments to this contract require written form, also a waiver of written form. If a clause of this agreement should turn out as invalid, the validity of the rest remains unaffected. An invalid clause will be replaced by another one with the same effect.

Signatures:

[CHF] [EuroSafe] [RUB]

Date: 7/9/2010

Dr. Thomas Henke

Ruhr-Universität Bochum
Fakultät für Sportwissenschaft
Lehrstuhl für
Sportmedizin und Sporternährung
Overbergstr. 19, D-44801 Bochum
Tel.: 02 34/32-2 40 99
Fax: 02 34/32-1 43 23

AMENDMENT TO PARTNER AGREEMENT

for the pilot implementation and testing of safety management schemes in Czech Handball

The Czech Handball Federation has officially announced the Charles University Prague, Faculty of Physical Education and Sport as responsible organisation in charge for execution of agreed project tasks and recipient of financial funding.

Signatures:

[CHF] .....

.....

[EuroSafe] .....

.....

7/9/2010

[RUB] .....

Dr. Thomas Henke

.....

Ruhr-Universität Bochum
Fakultät für Sportwissenschaft
Lehrstuhl für
Sportmedizin und Sporternährung
Overbergstr. 19, D-44801 Bochum
Tel.: 02 34/32-2 40 99
Fax: 02 34/32-1 43 23

Date:

B. Minutes

1st Meeting
"Safety in Sports – Injury Prevention and Safety Promotion in Norwegian Handball"

Draft minutes

Chair: Henke, Thomas
Venue: Oslo, Rica Oslo Hotel
Date: April 1st 2009, 09:00 – 13:30

Present (in alphabetical order)		
Name	**Organisation**	**Function**
Aagaard, Kari	**Norwegian Handball Federation**	**Leader Department of Sports**
Henke, Thomas	**Ruhr-University Bochum (RUB)**	**Project Manager "Safety in Sports"**
Luig, Patrick	**Ruhr-University Bochum (RUB)**	**Assistant to Project Manager**
Myklebust, Grethe	**Oslo Sports Trauma Research Center**	**Assistant Professor**
Schulz, David	**ARAG Sports Insurance**	**Head of Off. for Sports Injury Analysis**
Absent with apology		
Name	**Organisation**	**Function**
Furuseth, Per Otto	**Norwegian Handball Federation**	**Secretary General**

1. Welcome, agenda, who's who

Mr. Henke welcomes all participants to the meeting "Safety in Sports - Injury Prevention and Safety Promotion in Norwegian Handball" and thanks all participants for their availability. The agenda is adopted as proposed. Everybody introduces her/himself regarding her/his organisation, professional background, interest in the project and expectations for the meeting.

ACTION:

- RUB will provide the draft minutes of the meeting to all participants for review.

2. Brief introduction of Ruhr-University Bochum

Mr. Henke introduces the Ruhr-University Bochum and illustrates some existing cooperation projects and collaborations in handball as well as the European development and the perspectives in sports injury prevention (see annex *"Introduction"*).

ACTION:

- RUB will provide meeting report and survey report of the European Expert Meeting 1998 to Mrs. Myklebust.

3. Presentation of project "Safety in Sports"

Mr. Luig gives a presentation on the EU-Project "Safety in Sports", highlighting background information, intention, main working steps and objectives (see annex *"SafetyinSports Norway"*).

ACTION:

- RUB will check if injury videos displayed in the above-mentioned presentation can be given away to Mrs. Myklebust (copyrights on IOC material).

4. Formal Expectations

Mr. Henke points out potential collaboration details, possible benefits for the Norwegian Handball Federation and formal expectations arising from the project. He emphasizes the projects' politics to adjust the needs in compliance to the individual resources and demands of the cooperating experts and federations.

ACTION:

- RUB will provide a more detailed description of formal expectations and upcoming tasks.
- RUB will also specify the estimated working input of Mrs. Myklebust by the means of assessing the number of probable working days over the entire project run-time.

5. Joint scope of project activities and duties

Mrs. Aagaard and Mrs. Myklebust offer the opportunity to support the project and to enlarge the network "Safety in Sports". To make collaboration official a written declaration (letter of intent, see examples attached) of the Norwegian Handball Federation to support the project is needed. A baseline questionnaire concerning general awareness of and attitudes towards injuries and injury prevention in Norwegian handball is envisaged as potential kickoff for project activities. The survey is promoted as activity of the Norwegian Handball Federation to ensure a real baseline survey. The data typing work will be done by RUB. Norwegian partners will receive a SPSS data file. Free-text fields within the questionnaire should be kept to a minimum to reduce translation work. Possible findings will only be published after consultation and review of Norwegian Partners.

ACTION:

- RUB will hand out a draft questionnaire as soon as possible.
- RUB will send an example of an official letter of intent to Mrs. Aagaard.
- RUB will officially ask Mr. Roald Bahr from OSTRC to achieve project accreditation for Mrs. Myklebust.
- RUB will check how to deal with copyrights on existing prevention programmes.
- Mrs. Aagaard and Mrs. Myklebust will revise draft questionnaire in terms of completeness and quality.
- RUB will implement comments on draft questionnaire and hand out a final English version until April 30th 2009.
- Mrs. Aagaard and Mrs. Myklebust will take care for translation of the questionnaire
- Norwegian Handball Federation will disseminate questionnaires during national coaches meeting from May 8th to May 10th 2009 and during respective additional regional coaches seminars and meetings if possible.
- Norwegian Handball Federation, supported by Mrs. Myklebust, will identify and name appropriate national experts who could be part of a "European Network for Sports Injury Prevention" and that attend the national expert consultation meetings.
- It is intended to hold a 2nd meeting in Oslo on June 23rd.

6. Subcontracts

The agreement and commitment of the Norwegian Handball Federation to test injury prevention measures and strategies as a project pilot and in order to gain access to financial support out of the project budget will become definite by closing subcontracts with the project consortium.

ACTION:

- RUB will clarify how subcontracting procedures takes place in detail.

2nd Meeting
"Safety in Sports – Injury Prevention and Safety Promotion in Norwegian Handball"

Draft minutes

Venue: Norwegian School of Sports Science
Date: June 23rd 2009,13:30 – 15:30

Present (in alphabetical order)		
Name	**Organisation**	**Function**
Henke, Thomas	**Ruhr-University Bochum (RUB)**	**Project Manager "Safety in Sports"**
Luig, Patrick	**Ruhr-University Bochum (RUB)**	**Assistant to Project Manager**
Myklebust, Grethe	**Oslo Sports Trauma Research Center**	**Assistant Professor**
Absent with apology		
Name	**Organisation**	**Function**
Aagaard, Kari	**Norwegian Handball Federation (NHF)**	**Leader Department of Sports**
Schulz, David	**ARAG Sports Insurance**	**Head of Off. for Sports Injury Analysis**

1. Welcome, agenda

Mrs. Myklebust welcomes all participants to the 2nd meeting "Safety in Sports - Injury Prevention and Safety Promotion in Norwegian Handball" and thanks all participants for their availability. The agenda is adopted as proposed.

ACTION:

- RUB will provide minutes of the meeting to all participants for review.

2. Results, comparison, consequences & continuation of coaches' survey

Mr. Henke presents first results of the baseline survey, which had been collected by the Norwegian Handball Federation during the national coaches meeting from May 8th to May 10th 2009, in comparison to results from EHF Top Coaches Seminar 2008 in Skopje. It is intended to continue the baseline survey as the return rate of questionnaires has been quite low and as different coaches' groups (coaches of senior teams, elite teams) seem to be underrepresented. Functionaries and officials should also be included in an advanced baseline survey.

ACTION:

- Regional coaches' seminars and mailing lists are envisaged as potential dissemination channels for advanced baseline survey.
- RUB will hand out a new draft version of the questionnaire which can be used as online poll and which also addresses functionaries and officials.

- NHF will take care for translation.
- Mrs. Myklebust will add special question regarding website skadefri.no.
- RUB will provide the first results of baseline survey.
- RUB will shape a brief hook for recipients of email survey, summarizing intentions and goals of the project.

3. Injury prevention opportunities in Norwegian Handball

It is firstly discussed which preventive measures seem to be most promising and furthermore which promotion channels (e.g. Internet, posters, Coaches' education, DVDs, Norwegian Handball magazine) would work best possible in Norwegian Handball.

ACTION:

- NHF supported by Mrs. Myklebust, will identify and name appropriate national experts who could be part of a "European Network for Sports Injury Prevention" and attend the national expert consultation meetings.
- NHF will internally discuss (with appropriate experts) implementation opportunities in the forefront of the next meeting.

4. Preliminary review of draft inventory

Mr. Luig gives a brief overview of the current draft inventory consisting of 72 European references with preventive recommendations in handball. It is intended that experts as well as authors contributing to the inventory will be invited to revise the draft.

ACTION:

- Beyond the actual state of affairs RUB will continue literature search to upgrade the inventory steadily.
- NHF and Mrs. Myklebust and further Norwegian experts will revise the draft inventory in terms of quality and completeness.

5. Subcontracting details

The agreement and commitment of the Norwegian Handball Federation to test injury prevention measures and strategies as a project pilot and in order to gain access to financial support out of the project budget will become definite by closing subcontracts with the project consortium. A preliminary draft is presented by Mr. Henke. It becomes clear that the subcontracting draft has to be suited to the specific situation of the NHF and their nominated persons in charge, Mrs. Kari Aagaard & Mrs. Grethe Myklebust.

ACTION:

- RUB will make an amendment to the draft which records Mrs. Aagaard and Mrs Myklebust as official persons in charge for all project activities, each holding a share of 50% of estimated work days.
- RUB will clarify if 'production costs' (e.g. printing of leaflets) can be stipulated as additional founding on top of subcontracts.
- Mrs. Aagaard & Mrs. Myklebust should be added as benefit recipients.

6. Any other business

It is intended to arrange periodic teleconferences to stay in touch more frequently.

1st Expert Consultation Meeting
"Injury Prevention and Safety Promotion in Norwegian Handball"

Draft minutes

Venue: Austrian Road Safety Board (KfV), Schleiergasse 18, A-1100 Vienna
Date: January 25th 2010,10:30 – 15:00

Present (in alphabetical order)		
Name	**Organisation**	**Function**
Aagaard, Kari	**Norwegian Handball Federation (NHF)**	**Leader Department of Sports**
Henke, Thomas	**Ruhr-University Bochum (RUB)**	**Project Manager "Safety in Sports"**
Kisser, Rupert	**Austrian Road Safety Board (KfV)**	**Project Coordinator "Safety in Sports"**
Luig, Patrick	**Ruhr-University Bochum (RUB)**	**Assistant to Project Manager**
Myklebust, Grethe	**Oslo Sports Trauma Research Center**	**Assistant Professor**
Schulz, David	**ARAG Sports Insurance**	**Head of Off. for Sports Injury Analysis**

1. Welcome, agenda

Mr. Kisser, project coordinator and host, welcomes all participants to the 1st Expert Consultation Meeting "Safety in Sports - Injury Prevention and Safety Promotion in Norwegian Handball" and thanks them for their availability. He introduces briefly the Austrian Road Safety Board (KfV) and its role in the 'Safety in Sports' project. The agenda is adopted as proposed by RUB.

ACTION:

- RUB will provide draft minutes of the meeting to all participants

2. Project status report, baseline surveys, inventory

Mr. Henke presents a retrospective report on conducted and ongoing project activities and outlines intended proceedings *(see annex: Safety in Sports Vienna.pdf).* The inventory of existing prevention measures and safety promotion strategies is finalized. 75 preventive ideas from more than 10 European countries are considered. To identify best measures an online evaluation tool was developed and launched in December 2009. Therefore, accredited experts were invited to find a consensus with the help of this web based evaluation process. This procedure should be completed by end of March 2010. Methods and intention are clarified due to common queries. Norwegian Handball Federation has continued with distribution of baseline questionnaires. Approximately 175 questionnaires are available as yet. Preliminary results of the current available surveys are discussed. However, it is intended to proceed with baseline survey until implementation is started. Furthermore, typical injury situations, injury mechanisms, predispositions and potential countermeasures are discussed.

ACTION:

- NHF: Mrs. Myklebust and Mrs. Aagaard will start online evaluation within the next weeks. In addition, they will check if further experts from Norway feel up to support reviewing process (e.g. Odd-Egil Olsen).
- NHF: Further coaches' seminars or lecturer meetings should be considered for continuous baseline surveying.
- RUB: Results of surveys will be provided subsequently.
- RUB: Final inventory will also be provided by means of a comprehensive booklet including state-of-the-art epidemiology.
- RUB: If necessary, e-questionnaire will be produced (e.g. for mailing lists).
- RUB: Mr. Luig will provide preliminary results of own injury database to Mrs. Myklebust *(see annex: handball injuries.pdf)*

3. Discussion on best prevention measures (toolbox) leading to potential approaches for Norwegian pilot

It is firstly discussed which preventive measures seem to be most promising and furthermore which promotion channels could work best possible in Norwegian Handball. Mr. Henke introduces a prevention matrix (see figure 1) that should be used to specify existing and missing fields of prevention in view of age, gender and performance level. There is a general consensus that injury prevention has to be promoted in terms of performance enhancement to establish compliance amongst athletes and coaches (e.g. how to perform/train a feint, jumpshot), in particular considering main injury mechanisms and situations in handball. With regard to training core stabilization, coordination, balancing exercises seem most promising alongside with increased awareness for simple jump tests (single and two legs) and coaches' or lecturer education. It is intended to increase the number of Norwegian regional coaches that have at least the first level of coaches' education.

Gender	Age	Performance Level	Training (programmes)	Technical + political strategies	(protective) equipment + facilities	Medical + nonmedical support + treatment
Female	Children	low				
		medium				
		high				
	Youth	low				
		medium				
		high				
	Adults	low				
		medium				
		high				
Male	Children	low				
		medium				
		high				
	Youth	low				
		medium				
		high				
	Adults	low				
		medium				
		high				

Figure 1: Prevention matrix

ACTION:

- RUB: Potential contents for the prevention matrix will be filled in regarding results from online evaluation process.
- NHF: Internal discussion about what is necessary (demands that can be saturated within the frame of the project) and how it can be promoted (e.g. coaches' education, training contents, DVD).

- NHF: Decision which fields (cells of prevention matrix) should be covered within the project
- RUB/NHF: Development of small programmes (for training) that help athletes to perform typical handball techniques (e.g. jump shots, quick feints) better (performance enhancement) and safer (injury prevention) at the same time. These programmes should be made available especially for coaches of young handball players of all levels.

4. Detailed elaboration of subcontracts

The agreement and commitment of the Norwegian Handball Federation to test selected injury prevention measures from offered fields of injury prevention (cells of prevention matrix, toolbox) and to promote them through discussed channels (as a project pilot) and in order to gain access to financial support out of the project budget will become definite by closing subcontracts with the project consortium. Before signing the final contract needs detailed elaboration of contents with regard to de facto tasks and contents within implementation phase.

ACTION:

- RUB: Amendment to the draft which records Mrs. Aagaard and Mrs Myklebust as official persons in charge for all project activities, each holding a share of 50% of estimated work days. Within the amendment Mrs. Aagaard & Mrs. Myklebust should be added as benefit recipients.
- RUB/CHF: Elaboration of a provisional time schedule for implementation phase (next 12 months) (as part of the contract).
- NHF: Clearly formulate which fields should be covered within the project (as part of the contract).
- RUB: Preparation of final subcontracts, following aforesaid actions.

2nd Expert Consultation Meeting
"Injury Prevention and Safety Promotion in Norwegian Handball"

Draft minutes & work plan

Venue: Norwegian Handball Federation, Ulleval Stadium, Oslo, Norway
Date: August 31, 2010 16:00 – 20:30

Present (in alphabetical order)		
Name	**Organisation**	**Function**
Aagaard, Kari	Norwegian Handball Federation (NHF)	Leader Department of Sports
Henke, Thomas	Ruhr-University Bochum (RUB)	Project Manager "Safety in Sports"
Løken, Jan Henning	Norwegian Handball Federation (NHF)	Womens' National Team Physio
Luig, Patrick	Ruhr-University Bochum (RUB)	Assistant to Project Manager
Myklebust, Grethe	Oslo Sports Trauma Research Center (OSTRC)	Assistant Professor
Sunde, Solveig	Department of Sport Medicine (NIH)	Consultant
Svendsen, Tom Morten	Norwegian Handball Federation (NHF)	Womens' National Youth Team Coach

The present partners agreed upon following items:

- The baseline surveys among coaches measuring the pre-implementation perception of and attitudes towards injuries as well as knowledge and application of prevention measures will be continued till official start of implementation.

  Tasks:
  - **Patrick (RUB) sends ready-made e-questionnaire to Kari (NHF) for final test and – if test works out fine – for further provision in Norwegian handball via e-mail and webpage.**
    The online distribution of the questionnaires should start latest by September 15, 2010.
  - **RUB is responsible for processing of the questionnaires and will report results to NHF regularly.**

- Elaboration of draft toolkits of prevention measures and promotion strategies

  Tasks:
  - **Kari (NHF) will request if test implementation of an advanced education module during upcoming level 4 coaches education(Octobre 28 – 29, 2010) is realisable and – if so – inform RUB immediately.**
    The request should lead to a response latest by September 9, 2010 (already done).
  - **On the basis of online evaluation results NHF will elaborate a coaching module on injury prevention consisting of theoretical information on injuries and their prevention (presentation) and demonstration of performance**

enhancing prevention measures (practice). This module aims at increasing coaches' knowledge on integration of preventive ideas into regular training routine e.g. through optimized warm-ups.

- **NHF, supported by Grethe Myklebust will provide draft theoretical and practical contents (toolkits) to RUB for review and discussion. This should be done latest by Octobre 15, 2010.**
- **RUB will assist NHF in elaborating this module. Making existing presentations and practices (videos) from prevention seminaries available will give an impression for the expected outcome. However, NHF should always keep its national demands and expectations in mind. An internal round table with Norwegian experts is therefore strongly recommended.**

- Pilot implementation of educational module

Tasks:

- **Elaborated education module will be tested/applied on various occasions such as upcoming coaches' and lecturer education seminars e.g. level 4 education seminaries (Octobre 28-29, 2010), coaches workshops in the frame of the Womens' EC 2010 (Decembre 7-19, 2010), NHF Top Coaches seminar (May 20, 2010)**
- **Critical reflection of and – if necessary – reasonable refinement of applied education module with regard to sustainable implementation into Norwegian handball coaches education.**
- **Documentation of test implementation in hardcopy or comparable form (e.g. booklet, brochure, leaflet for athletes and coaches, presentations, videos) to guarantee a sustainable benefit for Norwegian handball.**
- **Further (already existing) injury prevention initiatives (skadefri, shoulder prevention) should also be documented. Preferably as pdf files.**
- **A first draft work plan on planned activities should be provided to RUB latest by end of Septembre, 2010**
- **RUB will provide the Norwegian Handball Federation with advice and support as needed for the fulfilment of the tasks mentioned and will assess completeness, quality and timeliness of the tasks**

- Follow-up survey among coaches measuring the post-implementation perception of and attitudes towards injuries as well as knowledge and application of prevention measures

Tasks:

- **NHF will use the same e-questionnaire for the follow up survey and guarantees distribution latest by end of April, 2011.**
- **RUB is responsible for processing of the questionnaires and will report results to NHF regularly.**

1st Meeting
"Safety in Sports – Injury Prevention and Safety Promotion in Czech Handball"

Draft minutes

Chair: Henke, Thomas
Venue: Prague, Faculty of Physical Education and Sport
Date: April 22nd 2009, 13:00 – 16:30

Present (in alphabetical order)		
Name	**Organisation**	**Function**
Henke, Thomas	**Ruhr-University Bochum (RUB)**	**Project Manager "Safety in Sports"**
Luig, Patrick	**Ruhr-University Bochum (RUB)**	**Assistant to Project Manager**
Pokorný, Jakub		
Schulz, David	**ARAG Sports Insurance**	**Head of Off. for Sports Injury Analysis**
Táborský, Frantisek		
Tuma, Martin		

1. Welcome, agenda, who's who

Mr. Henke welcomes all participants to the meeting "Safety in Sports - Injury Prevention and Safety Promotion in Czech Handball" and thanks all participants for their availability. Mr. Táborský proposes to change the agenda items 3 and 4. In other respects the agenda is adopted as proposed. Everybody introduces himself regarding his organisation, professional background, interest in the project and expectations for the meeting.

ACTION:

- RUB will provide the changed agenda and the draft minutes of the meeting to all participants for review.

2. Brief introduction of Ruhr-University Bochum

Mr. Henke introduces the Ruhr-University Bochum and illustrates some existing cooperation projects and collaborations in handball as well as the European development and the perspectives in sports injury prevention (see annex *"Introduction"*).

3. Presentation of project "Safety in Sports"

Mr. Luig gives a presentation on the EU-Project "Safety in Sports", highlighting background information, intention, main working steps and objectives (see annex *"SafetyinSports Czech"*).

ACTION:

- RUB will add the official logo of Charles University Prague to the group of collaborating partners (for further presentations)
- Charles University Prague will provide the official logo via email

4. Illustration of prevention related work in handball at Charles University Prague

Mr. Pokorný presents methods, results and conclusions of a Czech prevention study, focussing on a physiotherapy driven training programme, contributing to the reduction of muscular imbalances, which are considered to be a main cause of sports injuries in handball. One main difference between the Czech program and other preventive programs is the higher degree of individualization which is e.g. due to the necessity of muscle tests to check for muscular imbalances (see annex *"Injury Prevention in Czech Handball"*).

5. Formal expectations

Mr. Henke points out potential collaboration details, possible benefits for the Czech Handball Federation and formal expectations arising from the project. He emphasizes the projects' politics to adjust the needs in compliance to the individual resources and demands of the cooperating national federation and their experts.

6. Joint scope of project activities and duties

Mr. Táborský, Mr. Tuma and Mr. Pokorný offer the opportunity to support the project and to join the network "Safety in Sports". To make collaboration official a written declaration (letter of intent, see examples attached) of the Czech Handball Federation to support the project is needed.
A baseline questionnaire concerning general awareness of and attitudes towards injuries and injury prevention in Czech handball is envisaged as potential kickoff for project activities after the electoral meeting of the Czech Handball Federation in late June 2009. The survey is promoted as activity of the Czech Handball Federation to ensure a real baseline survey. The data typing work will be done by RUB. Czech partners will receive a SPSS data file for their own use. Free-text fields within the questionnaire should be kept to a minimum to reduce translation work. Possible findings will only be published after consultation and review of Czech partners.

ACTION:

- RUB will hand out a draft questionnaire on the lines of the questionnaire used in Norway
- Mr. Táborský, Mr. Tuma and Mr. Pokorný will check how the questionnaire can be distributed best possible in the Czech Republic (e.g. internet-poll or printed questionnaire) and which particular questions for Czech Handball Fereration's demands might be added or combined with this questionnaire
- Mr. Táborský, Mr. Tuma and Mr. Pokorný will take care for translation of the questionnaire
- RUB will send an example of an official letter of intent to Mr. Táborský.
- Mr. Táborský, Mr. Tuma and Mr. Pokorný will try to identify appropriate national candidates who might be considered to join the network of experts and who might be invited to the 2nd meeting.
- It is intended to hold a 2nd meeting in Prague in autumn 2009, which will be prepared via email.

7. Subcontracts

The agreement and commitment of the Czech Handball Federation to test injury prevention measures and strategies as a project pilot and in order to gain access to financial support out of the project budget will become definite by closing subcontracts with the project consortium.

ACTION:

- RUB will clarify how subcontracting procedures takes place in detail.
- RUB will provide drafts of the respective official documents

1st Expert Consultation Meeting
"Injury Prevention and Safety Promotion in Czech Handball"

Draft minutes

Venue: Hotel Flemings, Neubaugürtel 26-28, A-1070 Vienna
Date: January 24th 2010, 20:00 – 22:15

Present (in alphabetical order)		
Name	**Organisation**	**Function**
Fröschl, Peter	**European Handball Federation (EHF)**	**BU Methods & Beach Handball**
Henke, Thomas	**Ruhr-University Bochum (RUB)**	**Project Manager "Safety in Sports"**
Luig, Patrick	**Ruhr-University Bochum (RUB)**	**Assistant to Project Manager**
Táborský, Frantisek	**European Handball Federation (EHF)**	**Chairman Methods Commission**
Tůma, Martin	**Czech Handball Federation (CHF)**	**President of Coaches' + Methods Commission**
Absent with apologies (in alphabetical order)		
Name	**Organisation**	**Function**
Höritsch, Helmut	**European Handball Federation (EHF)**	**BU Education & Development**
Pokorný, Jakub	**Czech Handball Federation (CHF)**	**Coaches' Education**
Pollany, Wolfgang	**European Handball Federation (EHF)**	**Methods Commission**

1. Welcome, agenda

Mr. Henke, project manager, and Mr. Fröschl, host, welcome all participants to the 1st Expert Consultation Meeting "Safety in Sports - Injury Prevention and Safety Promotion in Czech Handball" and thank them for their availability. Due to conflicting dates the envisaged round table with CHF, NHF and EHF has to be splitted into two separate meetings. The agenda is adopted as proposed by RUB.

ACTION:

- RUB will provide draft minutes of the meeting to all participants.

2. Project status report, baseline surveys, inventory

Mr. Henke presents a retrospective report on conducted and ongoing project activities and outlines intended proceedings *(see annex: Safety in Sports Vienna.pdf).* The inventory of existing prevention measures and safety promotion strategies is finalized. 75 preventive ideas from more than 10 European countries are considered. Mr. Táborský notes that from his point of view there might be some references that are lacking. This deficits mainly derive from covered time-period (1990 onwards) and languages. Mr. Luig remarks that all partners had been asked

to add references from their own libraries or previous activities. To identify best measures an online evaluation tool was developed and launched in December 2009. Therefore, accredited experts were invited to find a consensus with the help of this web based evaluation process. This procedure should be completed by end of March 2010. Mr. Tůma's problems with log-in to online evaluation have been solved. Mr. Táborský and Mr. Fröschl are asked to take part in this process as well. Invitations and reminder were sent out on 18th December 2009 and 19th January 2010. Czech Handball Federation declares to have started with distribution of baseline questionnaires. Mr. Pokorný is responsible person for this task, also including translation. Approximately 40-50 questionnaires are available as yet. RUB offers help with data-typing and analysing of questionnaires. Preliminary results of the current available surveys are discussed. However, it is intended to proceed with baseline survey until implementation is started.

ACTION:

- CHF/EHF: Partners will try to start online evaluation within the next weeks.
- CHF: Further coaches' seminars are considered for continuous baseline surveying (e.g. next class of Czech A-License coaches).
- CHF: Mr. Táborský will provide further literature from his experience to Mr. Luig.
- CHF: Mr. Pokorný will send out already collected baseline questionnaires to RUB for analysis.
- RUB: Results of surveys will be provided subsequently.
- RUB: Final inventory will also be provided by means of a comprehensive booklet including state-of-the-art epidemiology.
- RUB: If necessary, e-questionnaire will be produced (e.g. for mailing lists).
- RUB: Mr. Luig will provide preliminary results of own injury database to Mr. Tůma *(already done in Vienna).*

3. Discussion on best prevention measures (toolbox) leading to potential approaches for Czech pilot

It is firstly discussed which preventive measures seem to be most promising and furthermore which promotion channels could work best possible in Czech Handball. Mr. Henke introduces a prevention matrix (see figure 1) that should be used to specify existing and missing fields of prevention in view of age, gender and performance level. Mr. Táborský sees a great opportunity in promoting prophylactic screenings for muscular imbalances.

Figure 1: Prevention matrix

Gender	Age	Performance Level	Training (programmes)	Technical + political strategies	(protective) equipment + facilities	Medical + nonmedical support + treatment
Female	Children	low				
		medium				
		high				
	Youth	low				
		medium				
		high				
	Adults	low				
		medium				
		high				
Male	Children	low				
		medium				
		high				
	Youth	low				
		medium				
		high				
	Adults	low				
		medium				
		high				

It is contemplated initiating a preventive module within the next Czech A-license coaches' course. Participants will implement promoted contents in their home teams and report in a three month follow-up. As already documented in the project proposal it is envisaged to finally produce a kind of comprehensive coaching and training toolkit/booklet covering all target groups of athletes, containing exercises and preventive ideas. This basic toolkit complemented with videos and photos could be used as template for universal translation (multi-lingual) and promotion (multi-channel e.g. web, print, dvd). It is discussed to have an additional meeting in Prague to have a closer look on Mr. Pokorný's work during coaches' education courses and to discuss detailed contents of the envisaged prevention module.

ACTION:

- RUB: Potential contents for the prevention matrix will be filled in regarding results from online evaluation process.
- CHF: Internal discussion about what is necessary (demands that can be saturated within the frame of the project) and how it can be promoted (e.g. coaches' education, training contents).
- CHF: Decision which fields (cells of prevention matrix) should be covered within the project.
- CHF: Mr. Pokorný will provide documents of his courses.

4. Detailed elaboration of subcontracts

The agreement and commitment of the Czech Handball Federation to test selected injury prevention measures from offered fields of injury prevention (cells of prevention matrix, toolbox) and to promote them through discussed channels (as a project pilot) and in order to gain access to financial support out of the project budget will become definite by closing subcontracts with the project consortium. Before signing the final contract needs detailed elaboration of contents with regard to de facto tasks and contents within implementation phase.

ACTION:

- RUB/CHF: Elaboration of a provisional time schedule for implementation phase (next 12 months) (as part of the contract).
- CHF: Clearly formulate which fields should be covered within the project (as part of the contract).
- RUB: Preparation of final subcontracts, following aforesaid actions.

2nd Expert Consultation Meeting
"Injury Prevention and Safety Promotion in Czech Handball"

Draft minutes & work plan

Venue: Prague, Charles University, Faculty of Physical Education and Sport, Room H 104
Date: October 12, 2010 10:00 – 13:30

Present (in alphabetical order)		
Name	**Organisation**	**Function**
Henke, Thomas	**Ruhr-University Bochum (RUB)**	**Project Manager "Safety in Sports"**
Luig, Patrick	**Ruhr-University Bochum (RUB)**	**Assistant to Project Manager**
Pokorný, Jakub	**Czech Handball Federation (CHF)**	**Coaches' Education**
Táborský, Frantisek	**European Handball Federation (EHF)**	**Chairman Methods Commission**
Tůma, Martin	**Czech Handball Federation (CHF)**	**President of Coaches' + Methods Commission**

The present partners agreed upon following items:

- The baseline surveys among coaches measuring the pre-implementation perception of and attitudes towards injuries as well as knowledge and application of prevention measures will be continued till official start of implementation.

  Tasks:
  - **Jakub Pokorný will translate the prepared English questionnaire into Czech (mostly completed) and – beyond that – tailor it to the demands of Czech Handball**
    The Czech questionnaire (or changes), which will be finally tested during one coaches seminar (End of October, approx 30 participants) should be subsequently provided to RUB latest by November 8, 2010.
  - **Patrick Luig will convert the file into a ready-made e-questionnaire and send it back to Mr. Pokorný and Mr. Tůma for further provision in Czech handball via e-mail and webpage.**
    The online distribution of the questionnaires should start latest by November 15, 2010.
  - **RUB is responsible for processing of the questionnaires and will report results to CHF and Charles University regularly.**

- Elaboration of draft toolkits of prevention measures and promotion strategies

  Tasks:
  - **On the basis of the online evaluation results CHF will discuss and elaborate a coaching module on injury prevention consisting of theoretical information on injuries and their prevention (presentation) and demonstration of performance enhancing prevention measures (practice). This module aims at**

increasing coaches' knowledge on integration of preventive ideas into regular training routine e.g. through optimized warm-ups.

- **CHF will provide these theoretical (e.g. physical demands and etiology of injuries, equipment, (non)medical support) and practical contents (training & physical preparation) to RUB for review and discussion.**
  This draft toolkit should be available latest by November 30, 2010.
- **RUB will assist CHF in elaborating this module. Making best prevention recommendations from online evaluation (pdf files of orginal full text sources) and DVDs from German and European prevention courses available will help CHF to get an impression which further preventive aspects should be added to the existing prevention module of Mr. Pokorný. However, CHF should always keep its national demands and expectations in mind. An internal round table with Czech experts is therefore strongly recommended.**

- Pilot implementation of educational module

  Tasks:
  - **Elaborated education module will be tested/applied on various occasions such as upcoming coaches' and lecturer education seminars e.g. CHF coaches education seminar in January 2011 (7.-9.1.2011)**
  - **Critical reflection of and – if necessary – reasonable refinement of applied education module with regard to sustainable implementation into Czech handball coaches education.**
  - **Documentation of test implementation in hardcopy or comparable form (e.g. booklet, brochure, leaflet, posters for athletes and coaches, presentations, videos) to guarantee a sustainable benefit for Czech handball.**
  - **Further (already existing) injury prevention initiatives should also be documented. Preferably as pdf files.**
  - **A first draft work plan on planned activities (seminars) should be provided to RUB latest by end of November, 2010**
  - **RUB will provide the Czech Handball Federation with advice and support as needed for the fulfilment of the tasks mentioned and will assess completeness, quality and timeliness of the tasks**

- Follow-up survey among coaches measuring the post-implementation perception of and attitudes towards injuries as well as knowledge and application of prevention measures

  Tasks:
  - **CHF will use the same e-questionnaire for the follow up survey and guarantees distribution latest by end of April, 2011.**
  - **RUB is responsible for processing of the questionnaires and will report results to CHF and Charles University regularly.**

C. Questionnaires

INJURY PREVENTION IN HANDBALL

Questionnaire for handball coaches

Dear participants. We are interested in your experiences and opinions concerning handball injuries and their prevention. Please, support our survey by filling in this questionnaire.

First of all, some general information about your person

Your age: ☐ Your country: ☐

Your gender: ☐ Male ☐ Female

Coaching Education: ☐ None ☐ License ☐

☐ Sports Scientist ☐ Sports Physician ☐ Physiotherapist

Which teams do you coach?

1.	2.	3.
☐ Men ☐ Women	☐ Men ☐ Women	☐ Men ☐ Women
☐ Senior team (18+)	☐ Senior team (18+)	☐ Senior team (18+)
☐ Youth team (14+)	☐ Youth team (14+)	☐ Youth team (14+)
☐ Children	☐ Children	☐ Children
League ☐	League ☐	League ☐
Sessions/week ☐	Sessions/week ☐	Sessions/week ☐

The following questions deal with your personal perception of handball injuries

1. On a 5-point scale, do you think injuries are a major issue in handball?

○ **5** ○ **4** ○ **3** ○ **2** ○ **1**

very important issue ***not important at all***

2. Which specific injuries do you see as the biggest problem in handball? (3 answers max.)

☐ Head injuries ☐ Finger Injuries ☐ Knee injuries ☐ Ankle injuries

☐ Other ☐

3. What do you see as main causes for handball injuries? (3 answers max.)

☐ Bad luck ☐ Too little regeneration ☐ Bad technique

☐ Fouls / unfair play ☐ Insufficient warm-up ☐ Poor equipment

☐ Body contact ☐ Poor physical condition ☐ Previous injuries

☐ Too many matches ☐ Other ☐

4. Do you think that handball injuries are preventable?

☐ No (please, go to question 10) ☐ Yes, handball injuries are preventable

This part of the questionnaire broaches the issue of injury prevention in handball

5. How can the number and/or the severity of handball injuries be reduced? (3 answers max.)

☐ Better athletic preparation ☐ Modification of rules ☐ Stricter officiating
☐ Longer regeneration ☐ Protective equipment ☐ Less matches
☐ Medical Screenings ☐ Better equipment ☐ Preventive training measures
☐ Physiotherapy ☐ Other

6. Do you carry out any preventive training measures with your teams?

☐ No (please go to question 10) ☐ Yes, by means of **(multiple answers possible)**:

☐ Strengthening ☐ Warm-up ☐ Athletic drills
☐ Stretching ☐ Balance exercises ☐ Coordination exercises
☐ Cool down ☐ Technique Training ☐ Mobilisation exercises
☐ Other

7. When and how often do you apply these preventive training measures?

☐ During preseason: ☐ every session ☐ once a week ☐ less than once a week
☐ During season: ☐ every session ☐ once a week ☐ less than once a week

8. On a 5-point scale, how do your players like these preventive training measures?

○ **5** ○ **4** ○ **3** ○ **2** ○ **1**

like it very much ***dislike it***

9. On a 5-point scale, do you feel familiar and comfortable with applying these preventive training measures?

○ **5** ○ **4** ○ **3** ○ **2** ○ **1**

feel very familiar with it ***need more instruction on this issue***

10. Do your players use other prevention measures?

☐ No (please go to question 11) ☐ Yes, by means of **(multiple answers possible)**:

☐ Physiotherapy ☐ Mouthguards ☐ Taping
☐ Orthoses ☐ Protectors ☐ Medical Screenings
☐ Massage ☐ Other

11. Do you know any specific programmes to prevent injuries in handball?

☐ No ☐ Yes, namely

12. Do you think that injuries and their prevention should be integral part of coaches' education in handball?

☐ No ☐ Yes

13. Do you need more information on handball injuries and their prevention?

☐ No ☐ Yes

THANKS FOR YOUR SUPPORT!!

SUBMIT

Norges Håndballforbund

FOREBYGGING AV SKADER I HÅNDBALL

Kjære trener. Vi ønsker å få kunnskap om din erfaring og oppfatning om forebygging av skader i håndball. Vi håper du tar deg tid til å fylle ut spørreskjemaet.

FYLLES UT AV TRENERE:

Generell informasjon om deg som trener

Alder: ☐

Kjønn: ☐ Mann ☐ Kvinne

Trener utdanning: ☐ Ingen ☐ Nivå: ○ 1 ○ 2 ○ 3 ○ 4 ○ 5

☐ Idretts forsker ☐ Idretts lege ☐ Fysioterapeut

Hvilke lag trener du?

1.	2.	3.
☐ Menn ☐ Kvinner	☐ Menn ☐ Kvinner	☐ Menn ☐ Kvinner
☐ Senior (18+) ☐ Ungdom (14+) ☐ Barn	☐ Senior (18+) ☐ Ungdom (14+) ☐ Barn	☐ Senior (18+) ☐ Ungdom (14+) ☐ Barn
Lag ☐	Lag ☐	Lag ☐
Antall økter pr uke ☐	Antall økter pr uke ☐	Antall økter pr uke ☐

De følgende spørsmålene har med din oppfatning av skader i håndball

1. **På en 5-punkts skala, hvor stort problem utgjør skader i håndball?**

○ 5 ○ 4 ○ 3 ○ 2 ○ 1

stort problem ***ikke noe problem i det hele tatt***

2. **Hvilke skadetyper er verst i håndball? Maks 3 svar**

☐ Hodeskader ☐ Finger skader ☐ Kne skader ☐ Ankel skader ☐ Skulder Skader

☐ Andre ☐

3. **Hva anser du som mulige årsaker til skader i håndball? Maks 3 svar**

☐ Uhell ☐ Mangel på restitusjon / hvile ☐ Dårlig teknikk

☐ Ureglementert spill / ”unfair” spill ☐ For dårlig oppvarming ☐ Dårlig utstyr

☐ Kollisjon / kropps kontakt ☐ Dårlig fysikk ☐ Tidligere skader

☐ For mange kamper ☐ Andre ☐

4. **Tror du skader i håndball kan forebygges?**

☐ Nei, gå til spørsmål 10 ☐ Ja, håndball skader kan forebygges ved

De følgende spørsmålene handler om forebygging av skader

5. Hvordan kan antallet og/eller alvorlighetsgraden av skader i håndball reduseres? Maks 3 svar

- ☐ Bedre trente/forberedte utøvere
- ☐ Bedre rehabilitering
- ☐ Medisinsk screening
- ☐ Fysioterapi
- ☐ Regelendringer
- ☐ Beskyttelses utstyr
- ☐ Bedre utstyr
- ☐ Andre
- ☐ Strengere ledere
- ☐ Redusere antall kamper
- ☐ Forebyggende trening

6. Gjør du forebyggende trening med laget?

☐ Nei (gå til spørsmål 10) ☐ Ja, disse **Bruk så mange svaralternativer som du ønsker**

- ☐ Styrke
- ☐ Tøyninger
- ☐ Nedvarming
- ☐ Andre
- ☐ Oppvarming
- ☐ Balanse øvelser
- ☐ Teknikk trening
- ☐ Spesifikke drilløvelser
- ☐ Koordinasjons øvelser
- ☐ Bevegelighets trening

7. Når og hvor ofte gjør dere denne type øvelser?

☐ I forsesongen	☐ hver trening	☐ en gang pr uke	☐ mindre enn en pr uke
☐ I sesongen	☐ hver trening	☐ en gang pr uke	☐ mindre enn en pr uke

8. På en 5 punkts skala, hvor godt liker spillerne denne type treningsøvelser?

○ 5 ○ 4 ○ 3 ○ 2 ○ 1

Liker det svært godt ***misliker treningen***

9. På en 5 punkts skala, hvor kjent og komfortabel er du med denne type treningsøvelser?

○ 5 ○ 4 ○ 3 ○ 2 ○ 1

Svært godt kjent ***trenger mer instruksjon***

10. Bruker spillerne andre forebyggende tiltak?

☐ Nei, gå til spørsmål 11 ☐ Ja, disse **Bruk så mange svaralternativer som du ønsker**

- ☐ Fysioterapi
- ☐ Skinner / ortoser
- ☐ Massasje
- ☐ Tannbeskytter
- ☐ Annet beskyttelsesutstyr
- ☐ Andre
- ☐ Teip
- ☐ Medisinsk screening

11. Kjenner du til noen spesielle program som forebygger skader i håndball?

☐ Nei ☐ Ja, disse:

12. Synes du at skader og hvordan de kan forebygges skal være en integrert del av trenerutdanningen i håndball?

☐ Nei ☐ Ja

13. Ønsker du mer kunnskap om håndballskader og forebygging av dem?

☐ Nei ☐ Ja

14. Har du besøkt/bruker nettsiden www.skadefri.no?

☐ Nei ☐ En gang ☐ Av og til ☐ Jevnlig

TUSEN TAKK FOR HJELPEN!! Send inn

Norges Håndballforbund

Send inn

SKADEFOREBYGGING I HÅNDBALL

Spørreskjema til håndball trenerne

Kjære deltagere. Skadeforebygging er et stadig tilbakevendende tema. Din personlige oppfatning i forhold til dette temaet er svært viktig for oss. Vi setter stor pris på om du tar deg tid til å svare på dette spørreskjemaet.

1. **Har du i løpet av de siste 12 månedene fylt ut et skjema om skadeforebygging?**
   - ◯ Nei
   - ◯ Ja

2. **Har du mottatt eller sett/lagt merke til informasjon om skadeforebygging i handball fra Norges Håndball Forbund i løpet av de siste 12 månedene?**
   - ◯ Nei
   - ◯ Ja, i form av
     - ☐ Internett
     - ☐ Trener utdanningen
     - ☐ Tidsskrift/avis
     - ☐ TV
     - ☐ Annet _____

3. **Har du i det hele tatt mottatt eller sett/lagt merke til noen form for informasjon om skadeforebygging i handball i løpet av de siste 12 månedene?**
   - ◯ Nei
   - ◯ Ja, i form av
     - ☐ Internett
     - ☐ Trener utdanningen
     - ☐ Tidskrift/avis
     - ☐ TV
     - ☐ Annet _____

4. **Har det skjedd endringer eller har du gjort endringer i forhold til forebyggende tiltak (f.eks. valg av type øvelser, bruk av beskyttelsesutstyr, din kunnskap og forståelse) siden du mottok/la merke til denne informasjonen?**
   - ◯ Nei
   - ◯ Ja, disse:
     - a) _____
     - b) _____
     - c) _____

5. **Gjør du forebyggende trening med laget?**
   - ◯ Nei (gå til spørsmål 9)
   - ◯ Ja, disse **Bruk så mange svaralternativer som du ønsker**
     - ☐ Styrke
     - ☐ Oppvarming
     - ☐ Spesifikke drilløvelser
     - ☐ Tøyninger
     - ☐ Balanse øvelser
     - ☐ Koordinasjons øvelser
     - ☐ Nedvarming
     - ☐ Teknikk trening
     - ☐ Bevegelighets trening
     - ☐ Andre _____

6. **Når og hvor ofte gjør dere denne type øvelser?**

I forsesongen:	☐ hver trening	☐ en gang pr uke	☐ mindre enn en pr uke
I sesongen:	☐ hver trening	☐ en gang pr uke	☐ mindre enn en pr uke

7. På en 5 punkts skala, hvor godt liker spillerne denne type treningsøvelser?

○ 5 ○ 4 ○ 3 ○ 2 ○ 1

Liker det svært godt ***misliker treningen***

8. På en 5 punkts skala, hvor kjent og komfortabel er du med denne type treningsøvelser?

○ 5 ○ 4 ○ 3 ○ 2 ○ 1

Svært godt kjent ***trenger mer instruksjon***

9. På en 5-punkts skala, hvor stort problem utgjør skader i håndball?

○ 5 ○ 4 ○ 3 ○ 2 ○ 1

stort problem ***ikke noe problem i det hele tatt***

10. Hva anser du som mulige årsaker til skader i håndball? Maks 3 svar

☐ Uhell	☐ Mangel på restitusjon / hvile	☐ Dårlig teknikk
☐ Ureglementert spill/"unfair" spill	☐ For dårlig oppvarming	☐ Dårlig utstyr
☐ Kollisjon / kropps kontakt	☐ Dårlig fysikk	☐ Tidligere skader
☐ For mange kamper	☐ Andre	

Generell informasjon om deg som trener

Alder:

Kjønn: ○ Mann ○ Kvinne

Trener utdanning: ○ Ingen Nivå: ○ 1 ○ 2 ○ 3 ○ 4 ○ 5

☐ Idretts forsker ☐ Idretts lege ☐ Fysioterapeut

Hvilke lag trener du?

1.	**2.**	**3.**
○ Menn ○ Kvinner	○ Menn ○ Kvinner	○ Menn ○ Kvinner
☐ Senior (18+)	☐ Senior (18+)	☐ Senior (18+)
☐ Ungdom (14+)	☐ Ungdom (14+)	☐ Ungdom (14+)
☐ Barn	☐ Barn	☐ Barn
Lag	Lag	Lag
Antall økter pr uke	Antall økter pr uke	Antall økter pr uke

TUSEN TAKK FOR HJELPEN!!

Send inn

ČSH
ČESKÝ SVAZ HÁZENÉ

PREVENCE SPORTOVNÍCH ZRANĚNÍ V HÁZENÉ

Dotazník pro trenéry házené

Vážení trenéři, žádáme Vás o vyplnění následujícího dotazníku, ve kterém se zajímáme o Vaše zkušenosti a názory k otázce problematiky sportovních zranění v házené a jejich prevenci. Předem Vám děkujeme za spolupráci při vyplňování.

Obecné informace

Věk: ☐

Pohlaví: ☐ Muž ☐ Žena

Vzdělání: ☐ Žádné ☐ Trenérská třída ○ A ○ B ○ C

☐ Kondiční trenér ☐ Fyzioterapeut ☐ Jiné ☐

Které oddíly trénujete?

1.	2.	3.
☐ Muži ☐ Ženy	☐ Muži ☐ Ženy	☐ Muži ☐ Ženy
☐ Tým dospělých (18+)	☐ Tým dospělých (18+)	☐ Tým dospělých (18+)
☐ Mládežnický tým (14+)	☐ Mládežnický tým (14+)	☐ Mládežnický tým (14+)
☐ Děti	☐ Děti	☐ Děti
Liga ☐	Liga ☐	Liga ☐
Trénink/týden ☐	Trénink/týden ☐	Trénink/týden ☐

Otázky Vašeho osobního názoru k problematice sportovních zranění v házené

1. Na 5ti stupňové škále ohodnoťte důležitost problematiky zranění v házené?

○ 5 ○ 4 ○ 3 ○ 2 ○ 1

velmi důležitá *není důležitá*

2. Zranění jaké tělesné oblasti považujete v házené za nejvýznamnější? (Nejvíce 3 odpovědi)

☐ V oblasti hlavy ☐ V oblasti ruky ☐ V oblasti kolene ☐ V oblasti kotníku

☐ Jiné ☐

3. Co je podle Vás nejčastější příčinou vzniku zranění v házené? (Nejvíce 3 odpovědi)

☐ Náhoda ☐ Nedostatek regenerace ☐ Nedostatečná technika

☐ Fauly/„unfair“ hra ☐ Nedostatečné rozcvičení ☐ Nedostatečné vybavení

☐ Tělesný kontakt ☐ Nízká kondiční připravenost ☐ Předchozí zranění

☐ Vysoká četnost utkání ☐ Jiné ☐

4. Myslíte si, zda je možné zranění v házené předcházet?

☐ Ne (přejděte přímo na otázku 11) ☐ Ano

Otázky Vašeho osobního názoru k problematice prevence sportovních zranění v házené

5. Jakým způsobem může být podle Vás snížena četnost a míra závažnosti zranění v házené? (Nejvíce 3 odpovědi)

☐ Lepší kondiční připravenost ☐ Úpravou pravidel ☐ Přísnější dodržování pravidel
☐ Dostatečnou regenerací ☐ Snížením počtu utkání ☐ Používáním ochranných pomůcek
☐ Preventivní lékařské prohlídky ☐ Lepší vybavení ☐ Preventivními pohybovými programy
☐ Fyzioterapie ☐ Jiné _____

6. Provádíte ve svém týmu nějaké preventivní kroky s cílem snížení rizika vzniku zranění?

☐ Ne (přejděte přímo na otázku 11) ☐ Ano, **(více možných odpovědí)**:

☐ Posilování ☐ Rozcvičení ☐ Atletická cvičení
☐ Protahování ☐ Balanční cvičení ☐ Koordinační cvičení
☐ Zklidnění ☐ Trénink techniky ☐ Uvolňovací cvičení
☐ Jiné _____

7. Kdy a jak často provádíte tyto preventivní kroky?

☐ Během přípravného období: ☐ každý trénink ☐ 1 týdně ☐ méně než jednou týdně
☐ Během soutěžního období: ☐ každý trénink ☐ 1 týdně ☐ méně než jednou týdně

8. Na 5ti stupňové škále ohodnoťte oblíbenost preventivních kroků u vašich svěřenců.

○ **5** ○ **4** ○ **3** ○ **2** ○ **1**

velmi oblíbené ***nejsou oblíbené***

9. Na 5ti stupňové škále ohodnoťte použitelnost preventivních kroků.

○ **5** ○ **4** ○ **3** ○ **2** ○ **1**

dobře použitelné ***složitě použitelné***

10. Využívají vaši svěřenci preventivní opatření snižující riziko vzniku zranění?

☐ Ne (přejděte přímo na otázku 11) ☐ Ano, **(více možných odpovědí)**:

☐ Fyzioterapie ☐ Chrániče zubů ☐ "Tejpování"
☐ Ortézy ☐ Chrániče ☐ Preventivní lékařské prohlídky
☐ Masáže ☐ Jiné _____

11. Znáte některé konkrétní preventivní programy pro prevenci zranění v házené?

☐ Ne ☐ Ano (jaké?) _____

12. Měla by být problematika sportovních zranění v házené a možnosti její prevence nedílnou součástí vzdělávání trenérů?

☐ Ne ☐ Ano

13. Chtěli byste se dozvědět více o sportovních zraněních v házené, preventivních opatřeních a preventivních programech snižujících riziko jejich vzniku?

☐ Ne ☐ Ano

DĚKUJEME ZA VYPLNĚNÍ DOTAZNÍKU!!

Předložit dotazník

PREVENCE SPORTOVNÍCH ZRANĚNÍ V HÁZENÉ

Dotazník pro trenéry házené

Předložit

Vážení trenéři. Sportovní zranění v házené a jejich prevence je velmi aktuální a významná problematika. Žádáme Vás vyplněním tohoto krátkého dotazníku o Váš osobní názor na tuto problematiku. Děkujeme za spolulráci.

1. **Vyplnili jste během posledních 12 měsíců dotazník zabívající se problematikou zranění v házené a jejich prevencí?**

   ◯ Ne ◯ Ano

2. **Získali jste během posledních 12 měsíců od Českého Svazu Házené informace k prevenci sportovních zranění v házené**

   ◯ Ne ◯ Ano

   ☐ Internet ☐ Vzdělávání trenérů ☐ Tištěné informace

   ☐ Jinak _____

3. **Získali jste během posledních 12 měsíců jakékoliv informace k prevenci sportovních zranění v házené**

   ◯ Ne ◯ Ano

   ☐ Internet ☐ Vzdělávání trenérů ☐ Tištěné informace

   ☐ Jinak _____

4. **Změnili jste, nebo se změnilo něco po obdržení informací k prevenci sportovních zranění v házené (např. tréniková cvičení, používání ochranných pomůcek, Vaše informovanost)?**

   ◯ Ne ◯ Ano, jmenovitě: a) _____

   b) _____

   c) _____

5. **Provádíte ve svém týmu nějaké preventivní kroky s cílem snížení rizika vzniku zranění?**

   ◯ Ne (přejděte přímo na otázku 9) ◯ Ano, **(více možných odpovědí)**:

   ☐ Posilování ☐ Rozcvičení ☐ Atletická cvičení

   ☐ Protahování ☐ Balanční cvičení ☐ Koordinační cvičení

   ☐ Zklidnění ☐ Trénink techniky ☐ Uvolňovací cvičení

   ☐ Jiné _____

6. **Kdy a jak často provádíte tyto preventivní kroky?**

   Během přípravného období: ☐ každý trénink ☐ 1 týdně ☐ méně než jednou týdně

   Během soutěžního období: ☐ každý trénink ☐ 1 týdně ☐ méně než jednou týdně

7. **Na 5ti stupňové škále ohodnoťte oblíbenost preventivních kroků u vašich svěřenců.**

◯ 5 ◯ 4 ◯ 3 ◯ 2 ◯ 1

velmi oblíbené *nejsou oblíbené*

8. **Na 5ti stupňové škále ohodnoťte použitelnost preventivních kroků.**

◯ 5 ◯ 4 ◯ 3 ◯ 2 ◯ 1

dobře použitelné *složitě použitelné*

9. **Na 5ti stupňové škále ohodnoťte důležitost problematiky zranění v házené?**

◯ 5 ◯ 4 ◯ 3 ◯ 2 ◯ 1

velmi důležitá *není důležitá*

10. **Co je podle Vás nejčastější příčinou vzniku zranění v házené? (Nejvíce 3 odpovědi)**

☐ Náhoda ☐ Nedostatek regenerace ☐ Nedostatečná technika

☐ Fauly/„unfair“ hra ☐ Nedostatečné rozcvičení ☐ Nedostatečné vybavení

☐ Tělesný kontakt ☐ Nízká kondiční připravenost ☐ Předchozí zranění

☐ Vysoká četnost utkání ☐ Jiné ☐

Obecné informace

Věk: ☐

Pohlaví: ◯ Muž ◯ Žena

Vzdělání: ◯ Žádné Trenérská třída ◯ A ◯ B ◯ C

☐ Kondiční trenér ☐ Fyzioterapeut ☐ Jiné

Které oddíly trénujete?

1.	2.	3.
◯ Muži ◯ Ženy	◯ Muži ◯ Ženy	◯ Muži ◯ Ženy
☐ Tým dospělých (18+)	☐ Tým dospělých (18+)	☐ Tým dospělých (18+)
☐ Mládežnický tým (14+)	☐ Mládežnický tým (14+)	☐ Mládežnický tým (14+)
☐ Děti	☐ Děti	☐ Děti
Liga ☐	Liga ☐	Liga ☐
Trénink/týden ☐	Trénink/týden ☐	Trénink/týden ☐

DĚKUJEME ZA VYPLNĚNÍ DOTAZNÍKU!!

Předložit

D. Media of pilot implementations

Dagens treningstips fra TV2 og Senter for idrettsskadeforskning/NHF

Håndballskole i 10 (?) økter (nøyaktig antall økter må avklares med TV2). Her er tipsene som gjør deg og kroppen klar til håndballspill

Motto: Er du klar til kamp? Hold deg skadefri! Bli en bedre handballspiller!

Idé: Vi ønsker å formidle kunnskap om hva som skal til for å bli en bedre håndballspiller. Med oppvarmingsøvelsene vi viser her vil du som spiller blir fysisk sterkere, få bedret din balanse og koordinasjon, bedret din spenst og dermed prestere bedre på håndballbanen. Samtidig har disse øvelsene vist at antallet håndballskader kan halveres.

Alvorlige ankel- og kneskader samt kronisk smertefulle knær og skuldre er typiske helseplager for en håndballspiller. De fleste korsbåndskader skjer i finte- eller i en landing, og som oftest når en er minst forberedt på det. Kvinner er dessverre 4-7 ganger så hyppig utsatt for denne skaden sammenlignet med menn.

Formål med øvelsene i TV2´s håndballskole er å bli en bedre håndballspiller samt å få bedre kontroll på hofte, knær og fot under finter og landinger.

Konsept: To profilerte spillere fra landslaget viser øvelsene sammen med 2 spillere fra rekruttlandslaget (jente + gutt, vi organiserer spillere). Øvelsene og deres hensikt forklarer vi (Grethe Myklebust & Kathrin Steffen), og vi instruerer selvfølgelig utøverne (utenfor kamera).

Forslag til innhold fordelt på 13 økter:

(1) Knekontrolltester: Fallhopptest og ettbens kneboy

Det første en trener bør teste, er knekontrollen ved finter og landinger etter et innhopp eller en frosk. Her vil vi vise to enkle tester som kan avdekke om spillerne må trene ekstra mye på balanse- og koordinasjon og styring av kneet.

Testene er viktig å gjennomføre fordi vi vet at de fleste alvorlige kneskadene skjer under landinger, og i situasjoner som krever raske retningsforandringer, som for eksempel i en finte i håndball eller fotball.

Alle spillerne på laget bør gjøre disse testene, og dere bør hjelpe hverandre med utførelsen. Som trener eller medspiller står du rett foran spilleren og ser hvordan de utfører testene. Spillere med en dårlig eller farlig landing og/eller ettbens kneboy bør trene ekstra mye styrke, balanse, koordinasjon og bevisstgjøring av kneposisjonen i ulike treningssituasjoner.

(2) Løp: Ulike løpsøvelser (partnerøvelser med og uten ball)

(3) Balanse I: Øvelser på gulvet (Partnerøvelser med ballkast)

(4) Balanse II: Øvelser på balansematte og -brett (progresjon, partnerøvelser)

(5) Teknikk I: Gulvøvelser med ilagt finteteknikk, stem og kne over tå – trening

(6) Teknikk II: Hopp og landing (kne over tå, stabilisering etter dytt fra partneren)

(7+8) Styrke og spenst I+II: Nordic Hamstrings, kneboy, spensthopp, Sprunglauf

(9+10) Oppvarming av skulder I+II: Opptrekk, utadrotasjon, roing (med strikk)

(11+12) Styrke av kjernemuskulatur I + II: Mage og rygg

(13) Førstehjelp: PRICE – prinsippet ved akuttskadebehandling ankelovertråkk

Utstyr for filmdagen:

- SKADEFRI roll-ups i bakgrunn
- SKADEFRI-DVD
- 2-3 håndballer
- Step-kasser
- Strikk
- Utøvere i nye (!) håndballklær, like sko (??), sokker og klær (fra NHF)
- ACL plakat, trenerguide
- PRICE utstyr

(1) Knekontrolltester: Fallhopptest og ettbens knebøy

Det første en trener bør teste, er knekontrollen i finter og ved landinger etter et innhopp eller en frosk. Her vil vi vise to enkle tester som kan avdekke om spillerne må trene ekstra mye på balanse- og koordinasjonsstyring av kneet.

Testene er viktig å gjennomføre fordi vi vet at de fleste alvorlige kneskadene skjer under landinger, og i situasjoner som krever raske retningsforandringer, som for eksempel i en finte i håndball eller fotball.

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Utstyr: 2 step-kasser og/eller en benk → se Fallhopp video på SKADEFRI.NO

(2) Løp

Løpsøvelsene brukes til å forberede spillerne til videre håndballtrening gjennom en gradvis oppvarming av muskulatur. Men de gir også en god mulighet til å øve på knekontroll; bruk dem derfor til å lære spillerne riktig løps- og stemteknikk der hofte, kne og ankel skal være i en rett linje, "kne over tå".

(a) Start med lett jogging og oppvarming av skuldrene

(b) Løp baklengs med sideveis forflytning, vær lett på foten og husk hurtig fotarbeid.

(c) Løp med kneløft og hælspark. Husk myke landinger på forfoten.

(d) Sidelengs løp med beinkryss: Løp sidelengs med rotasjon av overkropp og beinkryss. Poenget her er lavt tyngdepunkt, raskt fotarbeid med lett bøy i knærne.

(e) Løp med rotasjon om lengdeaksen

(f) Løp med sideveis forflytning, bøy i knær, ballkast til partneren

(g) Løp med stem; fokuser på "kne over tå"! Dette er en fin forberedelse til fintetrening.

(h) Stigningsløp. Start rolig og øk tempoet gradvis.

Utstyr: Ball

(3 + 4) Balanse

Balanseøvelsene skal forbedre kontroll og bevisstgjøring av kne- og ankelposisjon i alle spillesituasjoner. Det er viktig å stabilisere i hoften, spesielt ved øvelser på ett bein.

(3) Balanse I: Øvelser på gulvet (partnerøvelser med og uten ballkast)

(a) Balanse på ett bein med god bøy i hofte og knær. Her skal det jobbes spesielt for å stabilisere kneleddet. Hold en rett linje gjennom kroppen og bytt bein etter 15 sekunder.

(b) Gjør samme øvelse med ball.

(c) Send pasninger til hverandre mens dere balanserer på balansematte eller brett. Fokus på kne over tå. Bruk fantasien, øvelsen blir vanskeligere på ett bein og med lukkede øyne.

(d) Kamp: Dytt partneren ut av balanse mens begge dere står på et ben

(4) Balanse II: Øvelser på balansematte og -brett (progresjon, partnerøvelser)

(a) Ettbens ballkast på brett eller matte

Send pasninger til hverandre mens dere balanserer på balansematte eller brett. Fokus på kne over tå. Bruk fantasien, øvelsen blir vanskeligere på ett bein og med lukkede øyne.

Send gjerne vanskelige pasninger (høye, lave, ut til siden) til partneren så balansen utfordres enda mer

(b) Tobens og ettbens knebøy på brett eller matte

(c) Kamp: Dytt partneren ut av balanse mens begge dere står på et ben på brett eller matte

Utstyr: Ball, balansematter, balansebrett

(5 + 6) Teknikk

Alvorlige kneskader skjer som regel i en finte eller ved landing etter innhopp eller frosk. Teknikktrening har til hensikt å bevisstgjøre spillerne på riktig finte- og landingsteknikk med innøving av tobens landing og kontroll over kneposisjon i landings- og fintesituasjoner. Løps- og teknikkøvelsene tar 4-5 min hver.

(5) Teknikk I: Gulvøvelser med ilagt finteteknikk, stem og "kne over tå" trening

(a) Løp med stem; fokuser på "kne over tå"! Dette er en fin forberedelse til fintetrening.

(b) Ett-bens finte. Stem med "kne over tå" og ha nok krefter til å ha et ordentlig fraskyv for å komme forbi spilleren.

(c) Innøving av to-bens finte

(6) Teknikk II: Hopp og landing

(a) Hopp fra step-kasse med tobens landing og fokus på kne over tå

(b) Hopp og stabilisering etter dytt fra partneren

(c) Innøving av frosk med to-bens landing, ikke sett for bred finte slik at "kne over tå-posisjonen" kan beholdes i fraskyvet.

Utstyr: Step-kasse

7 + 8 Styrke og spenst

Målet med styrke- og spenstøvelsene er å bedre stillingssansen i ankel- og kneleddet, samt å bli generelt sterkere.

(a) Knebøy med og uten partner på ryggen, ettebens knebøy

Det er avgjørende at du konsentrerer deg om kne over tå, og rett rygg. Stikk rumpa godt ut, nesten som om du skal sette deg på en stol.

(b) Nordic Hamstrings

Nordic Hamstrings er en partnerøvelse for å styrke muskulaturen på baksiden av lårene. Hold rygg og hofter strak, mens du bremser fallet framover så lenge som mulig. Start med to serier på tre-fem repetisjoner, øk etter hvert.

(c) Gå med partneren på ryggen

(d) Spensthopp/4-kant hopp

Sats og hopp eksplosivt rett opp. Land mykt med stabile hofter, senk ned igjen til knebøy, og gjenta øvelsen i 30 sek. Hopp frem- og bakover, og fra høyre til venstre og omvendt.

(d) Sprunglauf

Sprunglauf er lange stabiliserende hopp. Velg en bane på 30-40 meter, og husk myke landinger med kne over tå. Dette er også en fin styrke- og spenstøvelse.

(e) Skøytehopp

Hopp ca. en meter sidelengs fra det ene beinet til det andre, som en skøyteløper. Land mykt med kne over tå og stabile hofter. Gjenvinn balansen før hvert hopp. Gjenta øvelsen i 30 sek.

(f) Stå på begge ben, hopp med 90°s vending og land på ett ben med kne over tå. Deretter gjør du en ny vending der du lander på to ben. Fortsatt med fokus på kne over tå.

Utstyr: Håndkle, treningstøy (mest enkelt og praktisk), eller en balansematte for å beskytte knærne under Nordic Hamstrings, en bane på 30-40 meter (sprunglauf).

(9+10) Skulderoppvarming med strikk I+II

Husk å varme opp skuldrene før du begynner med treningen. Her er gode øvelser for å bli varm i skuldrene. De bør gjøres foran hver trening. Husk lave skuldre og god holdning ved alle øvelsene.

(a) Utadrotasjon: Fest strikken i målstangen slik at albuen er i 90 grader. Trekk sammen skulderbladene og roter deretter armen ut til siden. 3 ganger 15 reps

(b) Opptrekk: Fest strikken lavt nede på målstangen. Fotstilling som (må beskrives). Start med armen nede å dra opp og bak som om du skal skyte en ball. 3 ganger 15 reps

(c) Roing: Sitt med begge ben lett bøyd og armene strakt foran deg. Trekk skulderbladene sammen "ned og bak" og brystet frem. 3 ganger 15 reps

Utstyr: Strikk og et blankpusset håndball mål

(11 + 12) Styrketrening kjernemuskulatur

Innledende tekst: .....

(a) Benken med progresjon

(b) Sideplanke med progresjon

(c) Sit-ups i ulike varianter

Utstyr: Matte

(13) Førstehjelp - akuttskadebehandling ved ankelovertråkk

Er skaden først skjedd, bør ankelen avlastes og akuttbehandlingen bør starte øyeblikkelig. Riktig behandling får deg raskere tilbake til håndball.

Demonstrasjon av akuttskadebehandling

Utstyr:

- Benk
- Elastisk bandasje: Vesentlig å ha ved akutte skader, finnes i forskjellige bredder
- Engangs isposer: Brukes som nedkjøling, virker først og fremst smertedempende, isposen slås sund og legges over det skadde området
- Uelastisk tape (sportstape): Brukes hyppig i forbindelse med taping av idrettsskader, er ikke egnet for akutte skader, men brukes litt ut i rehabiliteringsforløpet for å stabilisere ledd
- Elastisk tape med lim: Legges på i forbindelse med en akutt skade og kan brukes i de første døgnene av en akuttskade eller så lenge det er hevelse i det skadde området
- Engangshøvel: Fjern hår før sportstapen legges på (ikke så viktig i den akutte fasen)
- Tapesaks: Gjør det enklere å fjerne tapen
- Tynn skumgummi: Ekstra kompresjon og beskytter huden mot frostskader når man legger på is

Her er linkene til SKADEFRI-sidene

Fallhopptesten

Dette er en enkel test (hopp ned fra en kasse og hopp så høyt som mulig), som skal plukke ut spillere som har får dårlig kne- og hoftestabilisering/kontroll og som trenger ekstra mye fokus på balanse-, koordinasjons- og styrketrening: http://www.klokavskade.no/no/Skadefri/Handball2/Fallhopp-Test/
I boksen til høyre finner du en plakat som kan lastes ned. KNE OVER TÅ er slagordet som alle MÅ få med seg.

Oppvarmingsprogram

... til unge (men også voksne) håndballspillere "Unngå kne- og ankelskader":
http://www.klokavskade.no/no/Skadefri/Handball2/OEO/
Programmet, som skal vare i om lag 20 min, er delt inn i 2
Del 1 (løps- og teknikkøvelser: http://www.klokavskade.no/no/Skadefri/Handball2/OEO/Del-1/
Del 2 (balanse og styrke/spenstøvelser): http://www.klokavskade.no/no/Skadefri/Handball2/OEO/Del-2/
På høyre delen av nettsiden kan du laste ned plakater. Der finner du også korte innledende beskrivelser på hva øvelsene er gode for og hvorfor de er viktige.

PRICE og akuttskadebehandling

Er uhellet først ute, er det viktig at spillerne, trenere og andre i støtteapparatet vet hvordan de skal behandle skaden, og en av de mest vanlige håndballskadene er en ankel overtråkk.
Det er viktig å kjenne til PRICE prinsippet:
http://www.klokavskade.no/no/Skadefri/ArtikkelListing/Idrettsskader/PRICE/
Akuttskadebehandling av en ankel:
http://www.klokavskade.no/no/Skadefri/ArtikkelListing/Idrettsskader/Taping/Akutt-ankel/
Aktivitetstape for å kunne spille håndball allerede et par dager etter skaden:
http://www.klokavskade.no/no/Skadefri/Kroppsdel/Ankel/Unnga-ankelskader--taping/
I boksene til høyre kan du igjen laste ned plakater som gir deg mange bilder med enkle tekster.

Forebygging av korsbåndskader

Mål
- Endre finteteknikk
- Tobenslanding
- Bedre kontroll og bevisstgjøring av knefunksjon

Fokus
- Knær over tær
- Unngå å få tyngden på tærne, ikke ha tyngden "på tuppa"
- Unngå å slippe ut hoften ved øvelser på en fot

Organisering
- Spillerne deles i 3 grupper på ulike stasjoner; gulv, matte og brett
- Skift stasjon etter 5 min; benytt stoppeklokke
- Programmet kjøres minimum 3/uke i de første 5 ukene. Videre i oppfølgingsfasen skal programmet kjøres minimum 1/uke. Varier oppfølgingsfasen med øvelser fra uke 1 til uke 5
- Gi veiledning/korreksjon til hverandre

Hjemmeøvelser
- Tren balanse på ett ben hver gang du f.eks. snakker i telefonen, pusser tenner og ser på TV





Uke 1

A1: Løp m/stem
- To og to.
- Rolig jogg med ilagte stem.
- Partneren jogger foran spilleren og gir tilbakemeldinger.
- Bytt plass etter ca. 20 m.



B1: Ballmottak ett ben
- To og to på hver sin matte.
- Pasninger i variert høyde og tempo.
- Bytt ben i ca. 10 sek.

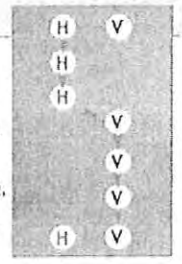


C1: Pasninger to ben
- To og to på hvert sitt brett.
- Pasninger i variert høyde og tempo.



Uke 2

A2: Hopp og tobenslanding
- To og to.
- Spilleren hinker på høyre (H), H, skyver over til venstre (V), V, V og deretter tobenslanding.
- Rytme: hink, hink, enfotslanding, hink, hink, tobenslanding.
- Partner rygger foran og vurderer kropps- og kneposisjon.
- Kjør 3-4 ganger før bytte.



B2: Frosk m/tobenslanding
- To og to. En matte og en lav benk.
- Pasning til partner.
- Tobenslanding.
- Hold landingsposisjon i 2 sek. før rullering.



C2: Knebøyninger tobens/ettbens
- To og to på hvert sitt brett.
- Først to ben, deretter ett ben.
- Bytt ben etter ca. 10 sek. v/ ettbens - knebøyninger.



Uke 3

A3: Innhopp finte
- To og to.
- Ettbens innhopp til finte.
- Tren fraskyvet i finta.
- Unngå at benet settes for langt ut til siden, og at kneet sklir inn.
- Pasning fra partner, bytt.



B3: Ettbens - landing
- To og to. En matte og en lav benk.
- Få pasning i lufta når du går ned.
- Vekselvis landing på høyre og venstre ben.
- Hold landingsposisjon i 2 sek. før rullering.



C3: Pasninger ett ben
- To og to på hvert sitt brett.
- Pasninger i ulikt tempo og vanskelighetsgrad.
- Bytt ben etter ca. 15 sek.



Uke 4

A4: Hopp med vending
- To og to.
- Tobenshopp frem, tilbake, 180° rotasjon, samme bevegelse tilbake.
- Etterhvert med dytt fra partner.
- Bytt etter 3-4 forsøk.



B4: To- og ettbens "kamp"
- To og to på hver sin matte.
- Prøv å dytt hverandre ut av stilling. Husk kontroll og bevisstgjøring av kneposisjon.
- Først to ben deretter ett ben.
- Bytt ben etter 10-15 sek. ved "ettbens-kamp".



C4: Ettbens ballstuss m/lukkede øyne
- To og to på hvert sitt brett.
- Stuss ballen, etterhvert med lukkede øyne.



Uke 5

A5: Innhopp finte og tobens-landing
- To og to.
- Som A3, men fullfør med innhopp og avslutt med tobenslanding.



B5: Innhopp m/vending
- To og to, en matte.
- Bruk alltid "antiskli" under matten.
- Høyt innhopp m/ballmottak og tobenslanding, deretter 180° vending på matte før rullering, m/partner.



C5: Tobens og ettbens "kamp"
- To og to på hvert sitt brett.
- Prøv å dytt hverandre ut av stilling. Husk kontroll og bevisstgjøring av kneposisjon.
- Først to ben deretter ett ben.
- Bytt ben etter 10-15 sek. ved "ettbens-kamp".



Løps- og teknikkøvelser for å unngå kne- og ankelskader (DEL 1)

Løpsøvelsene brukes til å forberede spillerne til videre håndballtrening gjennom en gradvis oppvarming av muskulatur. Men de gir også en god mulighet til å øve på knekontroll; bruk dem derfor til å lære spillerne riktig løps- og stemteknikk der hofte, kne og ankel skal være i en rett linje, "kne over tå".

Alvorlige kneskader skjer som regel i en finte eller ved landing etter innhopp eller frosk. Teknikktrening har til hensikt å bevisstgjøre spillerne på riktig finte- og landingsteknikk med innøving av to-bens landing og kontroll over kneposisjon i landings- og fintesituasjoner. Løps- og teknikkøvelsene tar 4-5 min hver.

Løpsøvelser

	Start med lett jogging og oppvarming av skuldrene.
	Løp baklengs med sideveis forflytning, vær lett på foten og husk hurtig fotarbeid.
	Løp med kneløft og hælspark. Husk myke landinger på forfoten.
	Løp sidelengs med rotasjon av overkropp og beinkryss.
	Løp med stem; fokuser på "kne over tå"! Dette er en fin forberedelse til fintetrening.
	Løp med rotasjon om lengdeaksen.
	Stigningsløp. Start rolig og øk tempoet gradvis.



Løp med ball, forlengs mens du stusser ballen. Vær lett på foten og ha fokus på "kne over tå".



Løp baklengs med sideveis forskyvning. Raskt fotarbeid med "kne over tå".



Løp med hælspark samtidig som du stusser ballen. Plasser foten godt under kneet.



Jobb med sidelengs fotarbeid. Stuss ballen og husk raskt fotarbeid.



To og to jobber sammen. En løper fremover og den andre løper bakover mens pasninger sendes til hverandre. Vær lett på foten.

Her kommer også skuldrene inn; det er viktig å varme opp kastarmen gradvis.



Sidelengs løp med hopp er en annen mulighet for å trene på myke to-bens landinger.



Variasjon med hinkeøvelser i 8-tall eller i kryss. Ha myke landinger med "kne over tå".

Bruk fantasien; finn på andre ett-bens øvelser, bytt ben etter 10-15 sek.

Teknikkøvelser



Avløpsfinte.

Vær bevisst på "kne over tå-posisjonen" når finten settes. Unngå å plassere foten for langt ut til siden.



Overslagsfinte.

Hold "kne over tå" i fraskyvet.



Ett-bens finte.

Stem med "kne over tå" og ha nok krefter til å ha et ordentlig fraskyv for å komme forbi spilleren.



To-bens finte.

Innøving av frosk med to-bens landing, ikke sett for bred finte slik at "kne over tå-posisjonen" kan beholdes i fraskyvet.



En kneskade skjer mye hyppigere ved ett-bens landing.

Tren derfor inn to-bens landinger uansett fra hvilken spilleposisjon du kommer!



Trening av innhopp med to-bens landing.

Balanse-, spenst- og styrkeøvelser for å unngå kne- og ankelskader (DEL 2)

Disse øvelsene skal forbedre kontroll og bevisstgjøring av kne- og ankelposisjon i alle spillesituasjoner. Det er viktig å stabilisere i hoften, spesielt ved øvelser på ett ben. Øvelsene kan varieres fra trening til trening. Balanseøvelsene tar 4-5 min. Det samme gjelder styrke- og spenstøvelsene.

Balanseøvelser



Stå med begge ben på balansebrett eller -matte. Ha god bøy i hofte og knær med en rak linje gjennom hofte, kne og ankel.

Øvelsene kan også gjøres med strake knær. Da blir fokus mer på kontroll av ankelleddet.



Balanse på ett ben med god bøy i hofte og knær. Her jobbes det spesielt for å stabilisere kneleddet.

Hold en rett linje mellom hofte, kne og tå og bytt ben etter 15 sek.



Knebøy på balansebrett. Tren først på to ben før du velger ett-bens knebøy. Ha fokus på "kne over tå".

Prøv på ett ben først når du er sterk nok. Det krever styrke og kontroll av hofte, kne og ankel.



Send pasninger til hverandre mens dere balanserer på balansematte eller -brett. Ha fokus på "kne over tå".

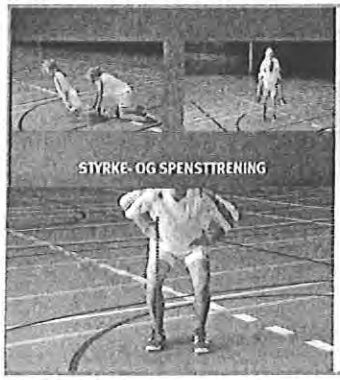
Bruk fantasi. Øvelsene blir vanskeligere på ett ben og med lukkede øyne. Bytt ben etter 15 sek.



"Kamp", først på to ben og så på ett ben. Prøv å dytte partner ut av balanse, men prøv å holde deg stabil så lenge som mulig.

Tren på balansematte eller -brett. Bytt ben etter 10-15 sek.

Styrke- og spenstøvelser



Samlet varighet på styrke- og spenstøvelsene er på 4-5 min. Målet er å øke styrke og spenst og bedre stillingssansen i ankel- og kneleddet. Bruk Nordic Hamstrings på hver trening og varier treningen med en av de andre styrke- eller spenstøvelsene.

I alle øvelsene er det avgjørende å konsentrer seg om "kne over tå" og rett rygg. Stikk baken godt ut, nesten som om du vil sette deg på en stol.

	Ha partneren på ryggen. Unge utøvere derimot bør ikke ha noen på ryggen. Velg da enkle knebøy uten tilleggsvekt som en alternativ treningsøvelse.
	Sprunglauf er lange stabiliserende hopp. Velg en bane på 30-40 m og husk på myke landinger med "kne over tå".
	Som en variasjon kan du ha ballen mellom bena og hoppe 30-40 m. Det er viktig at landingene skjer med lett bøy i hofter og knær.
	Nordic Hamstrings er en partnerøvelse for å styrke muskulaturen på baksidene av lårene. Hold rygg og hofter strak, mens du bremser fallet fremover så lenge som mulig; da blir øvelsen blir tyngre. Start med 2 serier à 3-5 repetisjoner, øk etter hvert til 3 serier à 10-12 repetisjoner.

Unngå *korsbåndsskader*

Håndballspilleres største mareritt er å ryke eller skade korsbåndet. Med disse øvelsene kan du halvere risikoen for å bli skadet, og trene balanse, koordinasjon og teknikk samtidig som du varmes opp for videre trening.

Tekst Grethe Myklebust, Kathrin Steffen (faglig ansvarlige) og Cathrine Amann Berentsen
Foto Stine Østby • **Utøvere** Stine Bredal Oftedal og Johannes Hippe



De fleste korsbåndskader skjer i finte- eller landingssituasjoner, og som oftest når du er minst forberedt på det. Formålet med disse øvelsene er å bli en bedre håndballspiller samt å få bedre kontroll på hofte, kne og fot under finter og landinger.

Oppvarmings/korsbånds-programmet er bygget opp i fem nivåer og med økende vanskelighets grad. Etter hvert som du mestrer de enklere øvelsene kan treningen gjøres vanskeligere ved å stå på en ustabil balansematte eller på et balansebrett.

Øvelsene i programmet fra Skadefri bør inngå som en del av den faste oppvarmingen.

Det som er fint er at bevisstgjøring av god knekontroll er trenbart. Forskning har vist at ved å gjennomføre et slikt program kan antall korsbåndskader halveres. Kvinner er også mer utsatt for slike skader enn menn, hele fire-seks ganger mer utsatt.

Sjekk eksempler fra programmet på de neste sidene.

FALLHOPPTESTEN



1

LANDING OG HOPP:
Be spilleren om å hoppe ned fra en middels høy kasse. Deretter ber du utøveren om å hoppe direkte rett opp før ny landing.



2

LIK TYNGDEFORDELING:
Be spilleren ha en myk landing, med tyngden likt fordelt på begge bein, og hopp deretter så høyt opp som mulig.



3

DÅRLIG LANDING:
Dårlig/farlig landing fordi knærne glir innover i landingsøyeblikket. Be utøveren trene mye balanse, styrke og koordinasjon.

ETTBEINSKNEBØY-TESTEN



1

STARTPOSISJON:
Utgangsposisjon. Be utøveren bøye ned til cirka 90o og opp igjen.



2

RIKTIG KNEBØY:
Godt utført ettbeins knebøy med en tydelig «kne over tå»-posisjon.



3

GALT:
Dårlig ettbeins knebøy med en vridning i hoften, og et kne som glir innover.

http://www.klokavskade.no/no/Skadefri/Handball2/Fallhopp-Test/

KNEKONTROLLTESTER

Det første du som trener bør teste, er knekontrollen etter finter og landinger etter et inn-hopp eller en frosk. Her viser vi to enkle tester som kan avdekke om dine spillere må trene ekstra mye på balanse- og koordinasjonstrening av kneet. Testene er viktig å gjennomføre fordi vi vet at de fleste alvorlige kneskadene skjer under landinger, og i situasjoner som krever raske retningsforandringer, som for eksempel i en finte i håndball eller fotball.

Alle spillerne på laget bør gjøre disse testene, og dere bør hjelpe hverandre med utførelsen. Som trener eller medspiller står du rett foran spilleren og ser hvordan de utfører testene. Spillere med en dårlig eller farlig landing og/eller ettbeins knebøy bør trene ekstra mye styrke, balanse, koordinasjon og bevisstgjøring av knepositsjonen i ulike treningssituasjoner.

ØVELSENE

Hva trenger du?

Hvis du ikke har en balansematte eller et balansebrett tilgjengelig, gjør øvelsene på gulvet. Dette kan være vanskelig nok for mange utøvere. En BOSU-ball kan også brukes, bruk fantasien og det utstyret du har tilgjengelig.

Husk:
Ha fokus på «kne over tå» i alle situasjoner og øvelser.

BALANSEBRETT



Kamp



Knebøy (først tobeins, så ettbeins)



Ballkast

GULVØVELSER



Rolig løp med ilagte stem, tren på god kneposisjon, kne over tå.



Hopp med dytt: Fokus på to-beins myke landinger med kne over tå.



Hopp med dytt: Fokus på to-beins myke landinger med kne over tå.

HOPPØVELSER



Stå på begge bein, hopp med 90os vending og land på ett bein med kne over tå.



Deretter gjør du en ny vending der du lander på to bein. Fortsatt fokus på kne over tå.



xxxx xxxxx xxxx xxxxxxx xxxxxxxx xxxxxxx xxx xxxx xxxxxxx xxx

MATTEØVELSER



Skøytehopp inn på matte. Ha fokus på landing med bøyd kne og kne over tå.



NB! Det er viktig at lårmuskulaturen er varm når øvelsen trenes, og 2-3 repetisjoner kan være nok i starten.



Fall rolig framover, uten knekk i hofta. Unngå at rompa stikker ut når du lener deg forover.

LANDINGSØVELSER



Frosk med tobeins myk landing med kne over tå.



Fin landing på to bein, med kne over tå.

RODEO





For å kunne trene med god knekontroll er vi avhengig av god stabilitet/styrke i kjernemuskulaturen, det vil si mage- og ryggmuskulatur. Og hvem har sagt at oppvarming og treningsøvelser er kjedelig?

Fakta om Skadefri

- Skadefri er Senter for idrettsskadeforsknings nettsider.
- Skadefri er utviklet for å gi norsk idrett på alle nivåer lett tilgang til oppdatert informasjon om idrettsskader og forebygging av skader.
- Særlig vekt på håndball, fotball og alpint/snowboard
- Senteret ledes av professor dr.med Roald Bahr og professor dr. med Lars Engebretsen
- Redaktør for skadefri.no er Kathrin Steffen, dr. scient og Roald Bahr.
- Ansvarlig for utarbeidelse av innhold er førsteamanuensis og spesialist i idrettsfysioterapi Grethe Myklebust.
- Øvelsesprogrammene baserer seg på forskning fra Senter for idrettsskadeforskning og andre ledende forskningsgrupper i utlandet.

http://www.klokavskade.no/no/Skadefri/Handball2/Unnga-korsbandskader/

www.skadefri.no.

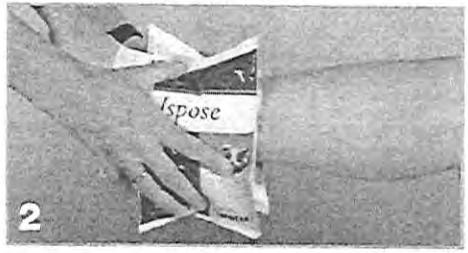
Akutthjelp ved ankelovertråkk

Er skaden først skjedd, bør ankelen avlastes og akuttbehandlingen bør starte øyeblikkelig. Riktig behandling får deg raskere tilbake til håndball.

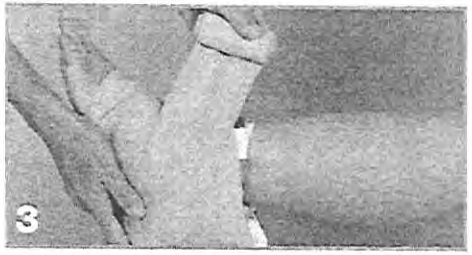
SLIK GJØR DU:



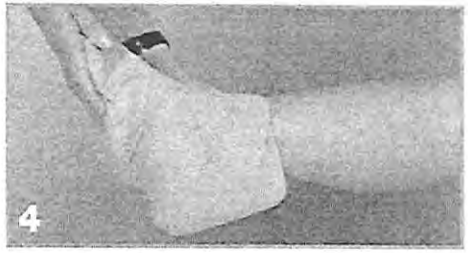
Legg papir eller en hesteskoformet skumgummipute rundt ankel-knoken for å lage en ekstra kompresjon rundt skadeområdet. For å unngå frostskader, dekker du huden med papir eller en sokk før du legger på isposen både på inn- og utsiden av ankelen (bruk to isposer.)



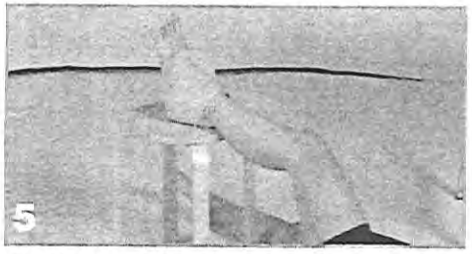
Klem hull på innerposen (ikke slå eller kast den i gulvet, da blir den ødelagt). Rist posen slik at innholdet i inner- og ytterposen blandes godt, da blir kuldeeffekten maksimal. Plasser isposene midt over ankelknoken både på inn- og utsiden.



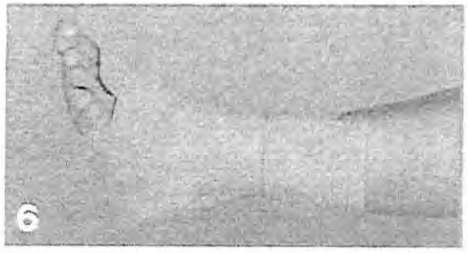
Fest kuldepakningen med et elastisk bind. Kompresjonsbandasjen legges stramt rundt ankelleddet.



Bandasjen legges på fra tærnaten og oppover med lett trykk, men samtidig med stram kompresjon over ankelknokene. Isposene vil forsterke kompresjonseffekten av det elastiske bindet når den er riktig anlagt.



Utøveren plasseres med beinet over hjertehøyde i minst en halvtime. Kuldeeffekten kan forlenges ved at man av og til løsner pakningen og foten. Nødvendig transport skjer med avlastning (krykker), og isposene utnyttes til å gi maksimal kompresjon under transport, selv om kuldeeffekten har gitt seg.



Når du er kommet hjem gjennomføres kompresjonsbehandling ved kontinuerlig bruk av elastisk bind. Minimum de to første døgnene, og så lenge det er hevelser rundt leddet. Nedkjøling kan gjennomføres i 20 minutter hver tredje til fjerde time.

PRICE

Har skaden først skjedd, er det viktig å vite hva du skal gjøre. PRICE-prinsippet er det viktigste stikkordet.

De fleste akutte skader kjennetegnes ved umiddelbar blødning. Ved en akutt leddbåndsskade i ankelen vil et betydelig hematom (blodansamling) være synlig innen få minutter uten behandling. Akuttbehandlingen skal begrense blødningen, noe som vil begrense betennelsesreaksjonen, og lette opptreningen. På engelsk kalles akuttbehandling av idrettsskader PRICE.

Det er avgjørende for utfallet av skaden at effektiv PRICE-behandling igangsettes så fort som mulig – selv før man har en sikker diagnose. IKKE TAP TID! Man må bare sikre seg at skaden ikke er så alvorlig at utøveren umiddelbart bør sendes til sykehus. God førstehjelp etter disse prinsippene bidrar til at det ofte blir lettere å stille en eksakt diagnose (bl.a. fordi det er mindre hevelse).

PRICE-behandlingen må fortsette kontinuerlig i 1-2 døgn for å være effektiv.

I noen tilfeller vil det være aktuelt å benytte betennelsesdempende midler i tillegg til akuttbehandlingen. De må kun benyttes i samråd med lege, og skal benyttes i kort tid (3-5 dager).

P er Protection (beskyttelse)

Skadestedet må beskyttes mot ytterligere skade, og det er spesielt viktig de første 48 timer. Grunnen er at i denne perioden vil det fortsatt kunne blø inne i det skadde vevet.

R er Rest (hvile)

Skadestedet skal holdes i ro, det vil for eksempel si at man ikke skal tråkke ned på en skadet ankel. Begrunnelsen er den samme; å unngå blødning.

I er Ice (nedkjøling)

Nedkjøling virker først og fremst smertedempende. Ved å redusere temperaturen på skadestedet kan også blødningen bli mindre. Man kan bruke knust is, kjølepakninger eller kjølespray til dette. Man bør kjøle ned i hvert fall de første 4–8 timer, eller så lenge det gjør vondt. Det kan gjøres ved at man kjøler ned med rennende kaldt vann i 20 minutter hver 3. til 4. time.

C er Compression (kompresjon med trykkbandasje)

Man legger en trykkbandasje rundt skadestedet. Den skal være så stram som mulig, men uten å struper sirkulasjonen forbi skadestedet. Kompresjonen bør opprettholdes de første 48-72 timer.

E er Elevation (elevasjon, å få den skadde kroppsdelen opp)

Det skadede stedet skal holdes høyt (over hjertehøyde). Blodtrykket blir da lavere på skadestedet, og man minsker blødningen.



HVA TRENGER DU:

Elastisk bandasje: Vesentlig å ha ved akutte skader, finnes i forskjellige bredder.

Engangs isposer: Brukes som nedkjøling, virker først og fremst smertedempende, isposen slås sund og legges over det skadde området.

Uelastisk tape (sportstape): Brukes hyppig i forbindelse med førstehjelp av idrettsskader, er ikke egnet for akutte skader men brukes for å unngå belastning av det skadde leddet.

Elastisk tape med lim: Brukes på i forbindelse med en akutt skade og kan brukes i de første døgnene av en akutt skade eller så lenge det er hevelse i det skadde området.

Engangshøvel: Fjern hår før sportstapen legges på, ikke så viktig i den akutte fasen.

Tapesaks: Gjør det enklere å fjerne tapen.

Tynn skumgummi: Ekstra kompresjon og beskytter huden mot frostskader når man legger på is.

PROFFEN

Erlend Mamelund spiller sin første sesong for FC København, og er allerede blitt en hit på det danske laget. I årets cupfinale ble laget hans "pokalmestere" som de sier i Danmark, og Mamelund selv scoret ti og var den dominerende spilleren i finalen. På FC Københavns hjemmesider beskrives han som en toveisspiller på meget høyt nivå, som er blitt en nøkkelspiller på kort tid.

Mamelund mener alle kan bli gode dersom de trener mye og variert. Som barn drømte han om å bli fotballspiller, men nå er det golf og tennis han spiller for å koble av på fritiden.





VANT NORDEN CUP

Mens de fleste hadde juleferie satte J96 i Oppsal klubben på det nordiske kartet. De tilbrakte romjula i Gøteborg, der de spilte Norden Cup, et slags uoffisielt nordisk mesterskap i yngre klasser. Oppsal-jentene slo danske Horsens 15-12 i semien og vant finalen mot de svenske hjemmefavorittene fra Ønnereds 13-12. Vi gratulerer.



GODE VENNER

Håndballens venner var hjertelig til stede under VM og EM, og ga både Håndballgutta og Håndballjentene støtten de fortjener. Nå ser «Vennene» fram mot EM på hjemmebane før jul, og satser på å fylle tribunen når Norge spiller. De jobber også med å få i stand et opplegg til VM i Brasil i 2011.

MOTIVASJONSFAKTOR

Det er ingen hemmelighet at den russiske dametreneren Jevgenij Trefilov er en hissigpropp av en trener, og han har trent de russiske damene i en årrekke. Han har vunnet mange titler med laget sitt, og han har ingen planer om å gi seg enda. På spørsmål om hvem han trodde ville bli den største trusselen under VM i Kina svarte han Tyskland, Sør-Korea, Kina, Brasil og Angola. Intervjueren ble noe overrasket da Trefilov ikke nevnte Norge, men han hadde et klart svar på det.

– Dette er en veldig spesiell historie. De har et veldig godt lag og Norge er min største personlige motivasjon for å fortsette som trener, ifølge IHFs nettsider.

Bli en bedre spiller
- kast, mottak og skudd

I de kommende numrene av magasinet vil vi forsøke å gi spillere på alle nivåer gode tips, råd og instruksjon i hvordan du kan bli bedre på ulike områder av håndballspillet. Vi starter med basisferdighetene kast, mottak og skudd.

Tekst *Tom Morten Svendsen (faglig ansvarlig) og Cathrine Amann Berentsen* • ***Foto*** *Stine Østby* • ***Utøvere*** *Randi Sulland og Christian O'Sullivan* • ***Takk til*** *Ekeberghallen og håndballinja ved Wang Toppidrettsgymnas*

MOTTAK



1



2



3

• Hvordan gjør du det?
Begge hendene brukes like mye i mottaket. Vi kan motta ballen med to hender forfra, bakfra og fra siden.

Bevegelsen starter i utgangsstilling med armene lett bøyd foran kroppen. Hendene er avslappet, fingrene peker framover og oppover, tomlene peker mot hverandre. Tomlene og pekefingrene danner en trekant. Overkroppen bøyes litt framover og armene strekkes mot ballen. I det fingertuppene berører ballen, bøyes armene samtidig som overkroppen føres tilbake (fjæringsbevegelse) og ballen føres inn mot kroppen med to hender.

• Treningstips for mottak og skudd
Foruten å bruke en medspiller, vil det å kaste mot en vegg være en ypperlig treningspartner for å trene på mottak.

TIPS

Det finnes også i dag et apparat vi kaller «Treningspartner». Hvis du går inn på **www.handball.no** Region Midt-Norge, og klikker deg inn på høyre side under fagstoff finner du **Treningspartner**. Her vil du finne mange fine øvelser som er viktig for trening av kast og mottak.

PISKEKAST/GRUNNSKUDD FRA GULVET





• Hvordan gjør du det?

Bevegelsen starter i utgangsstilling med ballen i to hender foran brystet. (1)

Overkroppen roteres bakover samtidig som kastarmen føres bakover og oppover. Albuen (vinkel 90°-120°) er i skulderhøyde eller høyere. (2)

Kastarmen føres hurtig framover til albueleddet er helt strukket samtidig som overkroppen roteres framover og ballen slippes. (3 og 4)

• Når bruker vi et piskekast?

Piskekast er en av de mest anvendelige og brukte kasttypene vi har. Kastet kan brukes både som pasning og skudd (grunnskudd). Piskekastet brukes for eksempel til å avlevere pasninger eller skudd mellom 6-12 meter.





NETTIPS OG VIDEOKLIPP

Ønsker du mer informasjon eller vil se videoklipp av hvordan det utføres, sjekk disse nettsidene:
På **www.handball.no** under **Fagtips** og **Ukas treningstips** finner du også se videoklipp av hvordan du kan trene på de ulike kastene og skuddene.
På **www.skadefri.no** finner du videoklipp og tips blant annet om hvordan du kan trene for å forebygge skader.
Sjekk også **www.basistrening.no**

PASS PÅ!

Om du bruker piskekastet som pasning eller skudd, påse at du alltid har foten rettet mot målet. Viktig å være i balanse med knærne over tærne (se øvelser på side 50) når du avleverer ball. Tenk at du skal være en trussel mot forsvaret.

HOPPSKUDD/PISKEKAST FRA LUFTA


1


2

• Hvordan gjør du det?
Bevegelsen starter i utgangsstilling med ballen i to hender foran brystet. Overkroppen roteres bakover samtidig som du satser med fremre bein, og kastarmen føres bakover og oppover.

Albueleddet er i hodehøyde med en vinkel på mellom 90° og 100°. Ballen holdes stille, høyere enn hodehøyde. Motsatt arm av kastarmen holdes foran brystet med lett bøy i albueleddet.

Kastarmen føres hurtig framover til albueleddet er strukket helt, samtidig som overkroppen roteres framover og ballen slippes mens du er i lufta.

• Når bruker vi piskekast fra lufta som pasning eller skudd?
Piskekast fra lufta brukes av og til som pasningmen det krever mye trening for å være presis. Skudd fra lufta som et hoppskudd er oftere brukt. Fordelen med skudd fra lufta er at du kan skyte over forsvaret. Piskekastet fra lufta (hoppskudd) brukes for eksempel til å avgi skudd fra en avstand på 6-12 meter.

• Pass på!
Om du bruker piskekastet fra lufta som pasning så er det viktig at du er i balanse (knærne over tærne) i satsøyeblikket, slik at selve pasningen blir så presis som mulig. Fordelen med en pasning fra lufta er at du kan sende en lang pasning over forsvaret diagonalt for eksempel. Det vil også her være viktig at du satser med foten mot mål. Det fører til at forsvaret tror du vil avgi skudd men at du i stedet sender en pasning til en medspiller som er bedre plassert. Viktig å være i balanse når du avleverer ball. Tenk at du skal være en trussel mot forsvaret.





TIPS

Du trenger å være godt trent i følgende muskelgrupper for å mestre de ulike delene av håndballspillet, og da særlig skudd og kast:
- Magemusklene (både den rette og skrå bukmuskel)
- Ryggmusklene generelt
- Brystmusklene
- Skuldermusklene
- Baksiden av øvre del av ryggen (musklene som føre armen bakover)
- Beinmuskulaturen

UNDERARMSSKUDD







• Hvordan gjør du det?
Bevegelsen starter i utgangsstilling med ballen i to hender foran brystet. Overkroppen roteres bakover samtidig som kastarmen føres bakover og oppover. (1) Albueleddet er i hodehøyde med en vinkel på 90° – 100°. Ballen holdes stille høyere enn hodehøyde et lite øyeblikk, fingrene peker utover/bakover. Kastarmen senkes til albueleddet er i hoftehøyde og underarmen peker mot kastarmsiden. (2)

Armen føres hurtig framover til albueleddet er helt strukket og ballen slippes. (3)

• Når brukes det?
Underarmskudd er en variant av grunn-skudd og hoppskudd. Utførelsen i utgangspunktet er lik i første del av skuddet, men utføres med armen i en lavere posisjon når ballen slippes. Skuddet vil kunne være overraskende på forsvaret.

• Pass på!
I og med at kroppen i et underarmsskudd legges noe over til siden vil det være særdeles viktig å være i balanse ved å plassere beina slik at du ikke faller i skuddøyeblikket.

• Underarmsskudd i steget
Kan være enda en variant som kan overraske. Denne skuddvarianten ser vi ofte brukt når en spiller skyter «rundt» en forsvarer.

UNDERARMSSKUDD I STEGET







LARVIK HK

HÅNDBALLENS Rosenborg?

Det er ikke bare bare å være flink i Norge. Larvik-trener Karl Erik Bøhn bruker ikke mange kalorier på debatten om at håndballens sorti i mediabildet går gjennom å komponere et uslåelig lag hjemme i Norge.

Tekst Per Søderstrøm • **Foto** Svein André Svendsen

Larviks håndballjenter er det nærmeste vi kommer nasjonale håndballstjerner, men det er ikke bare lett å være i lille Norge på klubbnivå.

– Nei, vi er faktisk opptatt av å gjøre så godt vi kan med de midler vi har til rådighet. Om det betyr at vi vinner uhemmet hjemme og nærmer oss den totale verdenstopp ute, ja, så har vi faktisk ingenting imot det, sier Karl Erik Bøhn.

– Vi tror på inspirasjon som påvirkningsmiddel til å ville starte med håndball, fortsette med håndball, og bli best mulig og gjerne verdensstjerne, med håndball. Vi tror også at interessen for den hjemlige serie øker når profilene blir flere.

Flere mennesker i hallen ønsker å se hjemvendte verdensstjerner, men det resulterer jo i at flere mennesker vil oppdage våre hjemlige profiler også – samtidig.

– Nei, vi synes ikke det er noen grunn til å slå på brekket når cruisekontrollen fungerer.

Han er inne i sitt åttende år som trener for Larvik-jentene. Først tre år som co-trener med Ole Gustav Gjekstad, så fem år alene. Larvik har elleve seriemesterskap - og med de fem siste på rad sier det seg selv at det jobbes riktig i Vestfold-byen.

– Og så kommer Gro Hammerseng og Katja Nyberg til neste år?

- Ja, og det var jo det som utløste debatten. At vi skulle bli enda bedre.

– Hvis jeg sier 27. mars – hva sier du da?

– Da møter vi Byåsen i Trondheim, sier Karl Erik Bøhn med et smil.

– Og det trenger ikke gå veien. Vi kan tape, og miste årets mesterskap. Så jevnt er det, så jeg skjønner ikke frykten for at vi skal «gruse» norsk håndball ved å bli for dominerende. Nei, vi må slutte å se spøkelser på høylys dag.

LARVIK VS BYÅSEN

Likevel har det meste dreid seg om Larvik de siste årene, både i Postenligaen, cupen, mesterligaen og cupvinnercupen. Hele tiden med Byåsen hakk-i-hæl. Og bedre skal det bli, forstår vi treneren rett.

– Ja, vi gleder oss over en nylig NM-tittel, det faktum at vi leder Postenligaen og at vi henger med i det gjeveste selskap internasjonalt. Så skal vi altså ta imot to verdensstjerner neste år, som ikke betyr umiddelbar suksess om man ikke fortsetter det grundige arbeidet som etter hvert er blitt et kjennetegn for klubben vår. Vi skal ikke gå i noen feller her, for målet er å bli størst i Europa og vi tør å si det.

Nå konsentrerer Bøhn og Larvik seg imidlertid om Postenligaen og konkurrentene.

– Ja, vi følger jo med interesse hvilke trenere som velges, hvordan spillestilen utvikles, men har de siste årene kun hatt skikkelig rivalisering via våre kamper mot Byåsen. Nå er Valeri Putans tilbake som trener der og det borger for kvalitet. Han har jo dette året bragt Selbu opp i en tilsynelatende sikker plass.

– Larvik topper mens Byåsen tapper?

– Nåja, noen går og noen kommer. Jeg tror ikke vi skal undervurdere kontinuiteten der oppe. De kommer fortsatt til å være våre argeste konkurrenter. Videre ser det ut som Tertnes har fått tilbake noen nøkkelspillere og har fått dreis på laget, så jeg tipper de tar bronse i år, mener Larvik-treneren.

– Overraskelser?

– Som jeg nevnte, Selbu, selv om forbedring var ventet under Putans. Gjøvik og Vardal under trenerledelse av Eskil Berg-Andreassen har også overrasket, eller kanskje bedre, innfridd. Deretter blir det vel en luke til Levanger og Stabæk som nok klarer å holde unna for de tre nederste. Våg Vipers Kristiansand er årets skuffelse. De begynte bra, og jeg hadde troen på dem, men de har sviktet. Jeg tror imidlertid det er nok guts i laget til at de skal klare seg. Gjerpen er nok fortapt, og mine prognoser går på at de får følge ned av Njård.

Riktignok gjenstår noen kamper i vårhalvåret, men skulle vestfoldingene vinne i Trondheim kan de kanskje ligne litt på et «Rosenborg» fra da av. Taper de, bryter Byåsen et seriemesterskapshegemoni for Larvik, så da kan jo de lefle litt med Rosenborg-navnet. De har dem jo i nabolaget! •



Treneren: Karl Erik Bøhn.



world event NVBF otera FIVB swatch

Morsom SOMMER-TRENING

De aller fleste tar en velfortjent pause fra organisert håndballtrening om sommeren, men ikke ta helt treningsfri. Her er våre morsomme tips til hvordan du kan utvikle kaststyrke og teknikk i sommer ved hjelp av steiner.

***Tekst** Tom Morten Svendsen • **Foto** Stine Østby*
***Utøvere** Lillan Eeg Kjærnsmo, Nordstrand og Henrik Christiansen, BSK/NIF*

Dersom du legger all trening i sommer på «hylla» utsetter du deg samtidig for den risikoen å få problemer med skuddarmen de første treningene etter ferien. Dette kan igjen medføre at du kanskje mister verdifull trening i oppkjøringen, og det ønsker du vel ikke? Derfor vil vi gi deg noen enkle tips om hvordan du kan vedlikeholde, og kanskje til og med øke kaststyrken i løpet av sommeren. Ikke alle har tilgang på avansert utstyr, derfor har vi valgt å bruke vanlig norsk gråstein som hjelpemiddel.

Mange spillere har begrenset treningserfaring når det gjelder kast. Av den grunn og fordi skuddstyrke og teknikk er svært viktig i håndball, har vi utarbeidet et sommertreningsprogram for deg som ønsker å møte godt forberedt til neste sesong. Dette skal være et utgangspunkt for den enkelte spiller til å trene individuelt.

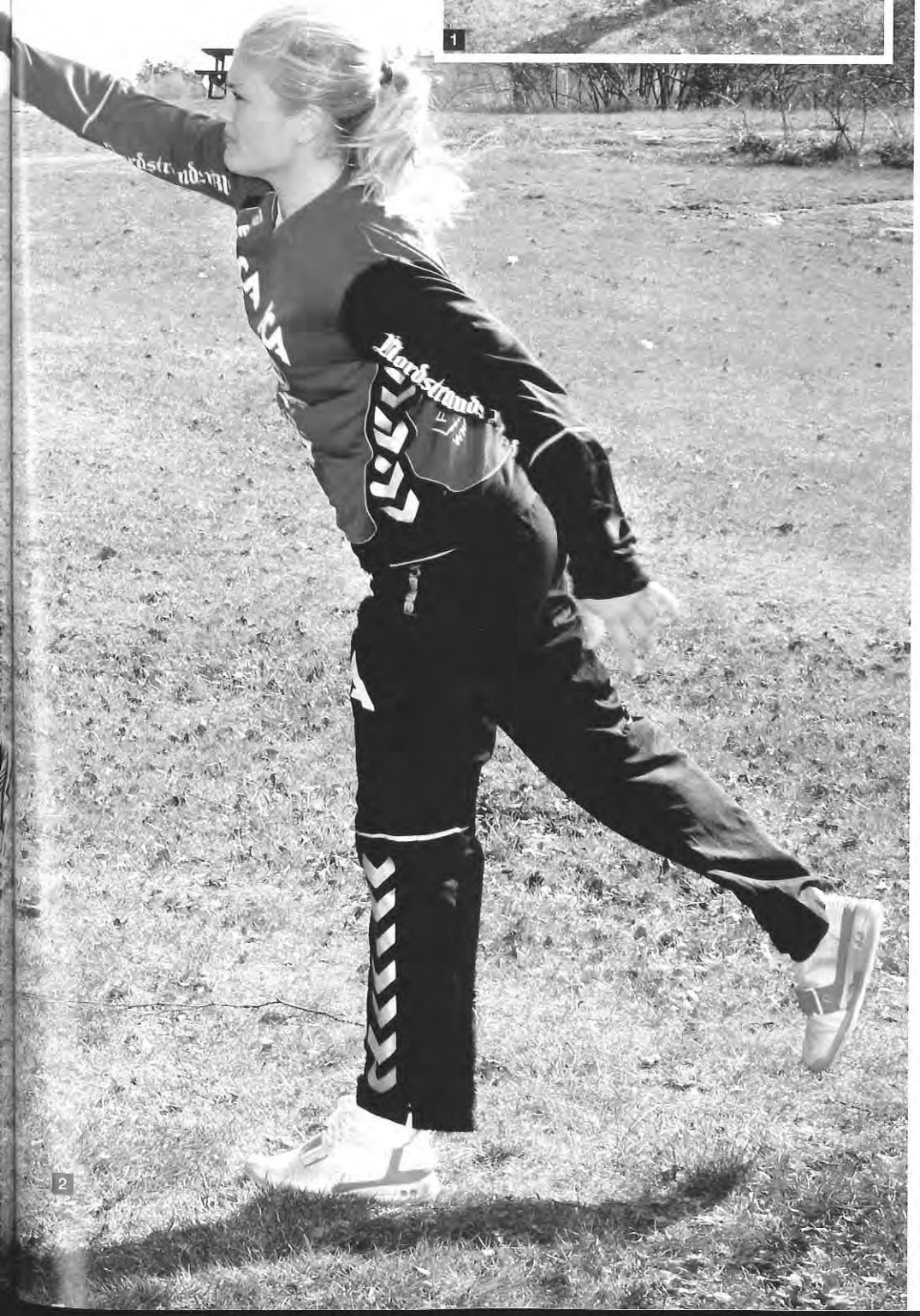


Treningsredskap: To små til å holde en stein i hver hånd og en stor stein til å holde med begge hender.

LENGDEKAST MED SMÅ STEINER

Før du gjør denne øvelsen må sjekke at du har god plass foran deg, eller at du kaster inn i en jordvoll eller lignende. Ta utgangspunkt i et vanlig piskekast eller sirkelkast. Still deg opp og vær i god balanse. Før armen godt tilbake, og hold albuen i høyde med eller over skulderhøyde. Kast steinen så langt du klarer.


1


2

SE VIDEO AV ØVELSENE PÅ WWW.HANDBALL.NO, UNDER FAGTIPS

HVA TRENGER DU?

Tre steiner: To små som du kan holde i hendene og «dunke» sammen uten at du slår fingrene, da får du trent grep også. Den litt større steinen må du tilpasse til din egen styrke, men den bør være noe større og tyngre enn de to små.

HUSK!

Ved kasttreningen er det viktig å understreke betydningen av riktig kastteknikk. Du må alltid holde fokus på de arbeidsoppgavene som er relevante for at teknikken blir optimal. Balanse, albuen over skulderhøyde og at du bruker hele kroppen i kastet, ikke bare en del av skulderen. Hvis du allerede har problemer med skulder eller annen skade, så tilpass treningen deretter, søk hjelp og behandling. Riktig teknikk vil gi avlastning på skulder.

ANTALL REPETISJONER

Vi anbefaler at du trener hele eller deler av programmet to-tre ganger per uke. Velg det antall øvelser du vil trene, og tilpass belastningen til din styrke.
Du kan for eksempel kjøre følgende dosering: 8-10 repetisjoner x 4-5 serier. Eventuelt kan du øke antall repetisjoner til 15-20, men da må du redusere til 3-4 serier. Pause mellom hver serie kan være 1-2 min. Du må tilpasse antall repetisjoner etter hvert som du blir bedre trent, eller øke vekten på steinene.

HVOR KAN DU TRENE?

Når det gjelder kasttreningen må du finne et område som egner seg for litt lengre kast. Et åpent område som har fri sikt minst 40 meter, eller en jordvoll du kan kaste mot. Vi anbefaler at du kaster 10 kast med høyre og 10 kast med venstre x 3-4 serier. Du kan gjennomføre denne kasttreningen ved å kaste to steiner så langt du klarer, løper dit de landet og kaster de tilbake x 10. Deretter tar du en pause på 2-3 min og kjører ny runde med 10 kast. Husk å kaste med både høyre og venstre arm. Rist løs og tøy mellom øvelser etter behov.

ØVELSER MED TO SMÅ STEINER


1


1


2

Stå i god balanse med en stein i hver hånd. Armene ned langs siden. Bøy armene opp mot skulder og ned igjen. Denne øvelsen kan du videreføre ved å løfte steinene opp over hodet og deretter helt ned igjen.


1


2

Stående med en stein i hver hånd, armene rett ned. Løft med strake armer rett ut til siden, og opp over hodet.


2

Stående på knærne med støtte av en hånd og en stein i den andre hånden. Før armen med steinen rolig så langt under magen og motsatt vei som mulig. Før deretter armen tilbake og rett ut og rett opp så langt du klarer. Øvelsen kjøres begge veier, høyre og venstre hånd.


1


2

Stående med en stein i hver hånd. Litt bøy i knær og hofte, og vær i balanse. Løft med strake armer foran kroppen og rett opp over hodet.





Ligg på magen med en stein i hver hånd. Løft albuene høyt opp så de peker rett ut til siden. Strekk vekselvis høyre og venstre arm rett fram så langt du klarer. Tenk at du bokser framover.





Stå med bøyde knær og hofte lent forover. En stein i hver hånd, armene hengende rett ned. Trekk armene opp slik at albuene peker opp og ut til siden. Skulderbladene trekkes litt sammen. Slipp armene rolig ned igjen.





Stående med en stein i hver hånd bak hodet. Albuene peker oppover. Strekk armene rett opp og tilbake til utgangspunktet.

ØVELSER MED EN STOR STEIN



1


2

Stående med en stor stein i begge hender plassert i front av kroppen. Albuene høyt og pekende ut til siden. Bøy lett i knærne slik at du er i balanse. Støt steinen rett fram så langt du klarer.



1


2

Stå med en stor stein i den ene hånden, albuen i høyde med skulder og pekende rett ut til siden. Støt steinen fra deg alt du kan. Støt både med høyre og venstre hånd. Pass på balansen.


1


2

Stående med den ene foten litt foran den andre. Hold steinen med begge hender skrått ned og bakover ved hofta. Kast steinen skrått opp foran kroppen. Et sideveiskast. Du kan også unngå å kaste steinen ved å stoppe bevegelsen på toppen. Du må kaste begge veier høyre og venstre.


1


2

Stå med en stein ned mellom beina, rett i ryggen og lavt med baken. Pendle steinen litt før du fører steinen raskt rett opp foran kroppen og kast steinen rett bakover. (Sjekk først at det ikke står noen bak deg). Alternativt kan du unngå å kaste, da stopper du bevegelsen når steinen er over hodet.


1


2

Stående med en stor stein i begge hender, den ene foten litt foran den andre. Bøy litt i knærne. Steinen holdes bak hodet. Kast steinen som et innkast så langt du klarer.


1


2

Stå rett med en stein som du holder med begge hender. God avstand mellom beina og i balanse. Bøy knærne med rett rygg, og legg steinen nesten i bakken. Armene er strake hele tiden, strekk rolig opp igjen til stående. Knær over tær hele tiden.


1


2

Stående med god avstand mellom beina og i balanse. Knærne hele tiden over tærne. Hold steinen bak på nakken. Bøy hofta og knærne samtidig. Du skal så lavt med baken at hoftekammen er i høyde med, eller lavere enn kneet. Rolig bevegelse ned og opp. Pust inn på veien ned, hold pusten og pust ut på veien opp. Du kan også kjøre øvelsen ved at du gjør en rolig bevegelse ned, men en rask eksplosiv bevegelse opp.

Redaktøren

Tonje Sagstuen Andersen var bare 15 år da hun kom på A-landslaget, og etter 12 år som landslagsspiller la hun ballen på hylla. I dag stortrives hun i jobben som redaktør for Oppland Arbeiderblads magasiner.

Tekst *Cathrine Amann Berentsen* • **Foto** *Privat, Scanpix*



Hvem husker vel ikke den blide, lange krølltoppen fra Gjøvik med det fryktinngytende skuddet? Ikke rart daværende landslagtrener, Sven Tore Jacobsen, var ivirg etter å få 15-årige Tonje på landslaget.

– Det var litt annerledes den gangen. Vi var flere unge jenter på laget og Jacobsen hadde en annen filosofi enn den som råder nå. Det gikk greit, selv om jeg fikk fysisk og psykisk sjokk på den første landslagssamlingen. Jeg husker også at jeg hadde helt vondt i magen før den første samlingen, jeg kjente jo ingen, sier Sagstuen Andersen.

BEST I BODØ

Sagstuen Andersen har spilt for flere norske klubblag, og var blant de første norske, kvinnelige proffene i utlandet. Men den beste tida som håndballspiller hadde hun da hun var i Bodø og IK Junkeren.

– Det er de to desidert fineste årene i mitt håndballiv. Junkeren var et nyopprykka lag, som satset og hadde store ambisjoner. Vi ble fort en stor vennegjeng som gjorde det meste sammen. Jeg var mye sammen med Lene Rantala som også var der, forteller Sagstuen Andersen.

Foruten å spille håndball, tok hun også to av årene på lærerskolen mens hun var i Bodø. Førsteåret gikk hun på Hamar, noe som skulle vise seg å bli et lykkelig valg.

– Det var et godt valg ettersom det var der jeg traff min framtidige ektemann, ler hun.

Hun har en femårig lærerutdannelse, men jobbet ikke som lærer mer enn tre-fire måneder, før media kapret Gjøvik-jenta. Et vikariat i sportsredaksjonen i Oppland Arbeiderblad samtidig med kommentatorjobb i TV2, førte henne inn på veien mot redaktørjobben.

– Det var en hektisk tid med mye jobbing, men jeg gikk en god skole. Jeg slutta i sporten da jeg fikk mitt første barn og etter det ble det nyhetsredaksjonen, der jeg var i tre år. Nå er jeg da redaktør for alle Oas magasiner samt innimellom for kultursidene og nettsiden.

Tonje har også tatt videreutdanning innen journalistikk, men hun drømte faktisk aldri om en mediekarriere.

– Nei, men jeg trives godt og det er forenlig med et liv utenom jobb, sier Tonje, som har tre gutter på 6, 8 og 10 år.

PROFFLIVET

Etter Junkeren dro Tonje, sammen med kjæresten, til Tyskland og profftilværelse i Boroussia Dortmund. Det ble et annerledes år, og på mange måter et friår.

– Som proffspiller er du mye mer overlatt til deg sjøl. Det er ikke et sånt samhold som det er i norske klubber. Det var greit nok for meg, jeg hadde med kjæresten og var godt etablert som spiller. I tillegg hadde jeg studier i samtidshistorie, og vi tok tyskkurs.

Og selv om hun lærte seg språket den gangen, tror hun det er borte nå. Hun understreker imidlertid at det er viktig å gjøre noe samtidig med livet som håndballproff.

«Det er flott å bli proff, men du har god tid til å gjøre mer enn å sove og trene. Få mer ut av livet enn bare håndball.»

– Jeg har hele tida hatt jobb eller studier ved siden av, ellers tror jeg det ville blitt kjedelig. Det er flott å bli proff, men man har god tid til å gjøre veldig mye mer enn å sove og trene. Bruk tida godt og sørg for å sikre din egen framtid etter håndballkarrieren, sier hun.

Tidligere landslagstrener, Marit Breivik, har også alltid oppfordret spillerne til å få noe mer enn håndball ut av livet, livet er mer enn håndball. En smart filosofi mener Tonje, som likevel setter pris på den praktiske erfaringen hun har fått av håndballen.

– Det er den beste skolen jeg har gått. Du lærer mye om deg sjøl, ikke minst det at du er vant med å være på et vinnerlag og du er vant til å stille høye krav til deg sjøl.

Tonje hadde lederfunksjoner også innen håndballen, blant annet som kaptein og tillitsvalgt, og mener det hun har lært av å være toppspiller i håndball er mer verdt enn fem år på lærerskolen i forhold til det å være leder.

– Håndballen har lært meg utrolig mye om å fungere sammen med andre, å prestere og ikke minst det å gjøre andre gode. Den lærdommen kombinert med utdannelse er verdifull, forteller hun

BRÅ SLUTT

Tonje selv hadde nok størst «problemer» med utdannelse da hun gikk første året på videregående og bestemte seg for å satse på håndballen.

– Det var en utrolig travel tid. Jeg spilte på kretslag, juniorlag og meldte overgang fra Gjøvik i tredje divisjon til KSH som var i eliten. Jeg kan prise meg lykkelig for at tvillingsøsteren min tok gode notater og fikk meg gjennom tre år på videregående. Tonjes håndballkarriere slutta tilsynelatende brått da hun var 27. Ingen alder for en håndballspiller, men Tonje hadde fått nok.

– Jeg hadde tross alt vært på landslaget siden jeg var 15, så det ble mange år. Jeg ville fylle livet mitt med noe annet enn håndball, og jeg ville bruke alt jeg hadde lært. Jeg har faktisk aldri savna det, og jeg spiller ikke håndball nå. Nå er jeg bare en vanlig mosjonist og løper mest etter ungene på fotballbanen, ler hun. ●

Norges Håndballforbund

EHF EURO 2010 WOMEN

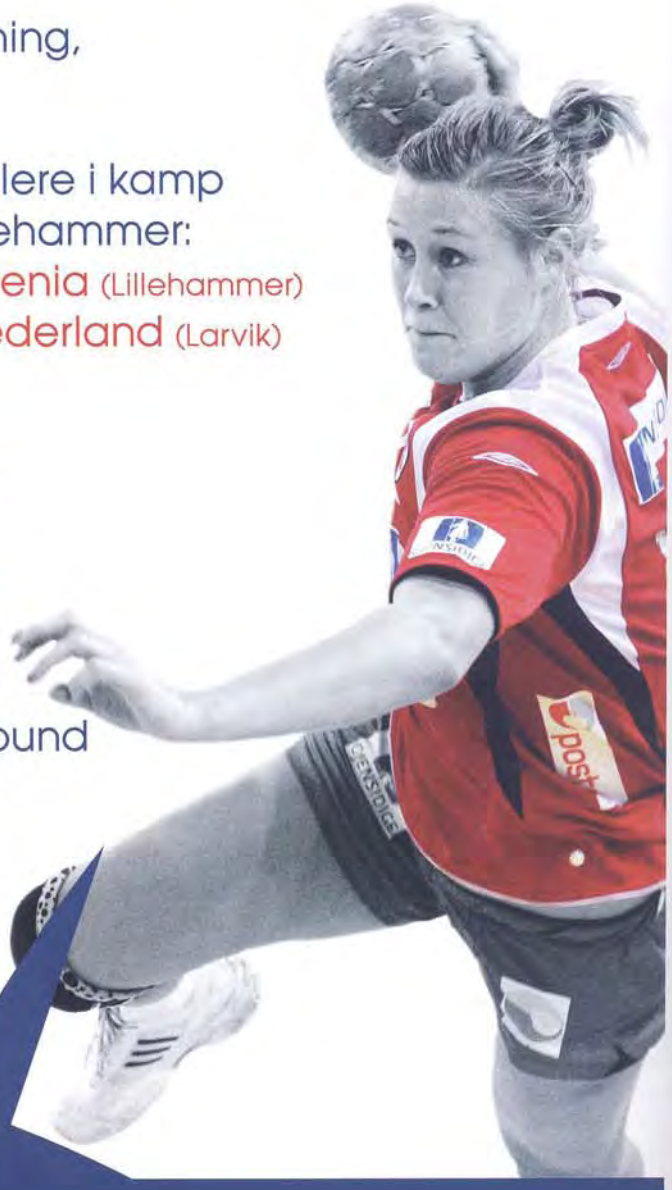
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TEKNIKK

Tren på tobeins-landinger for å unngå kneskader.



Kneskader skjer hyppigere ved ettbeinslandinger, tren derfor inn tobeinslandinger fra alle posisjoner. Vær bevisst på kne over tå-posisjonen.





En måte å trene tobeinslandinger på er at du får en dytt fra partneren mens du er i lufta. Poenget er å lande på to bein.

KNEKONTROLLTESTER

Her viser vi to enkle tester som kan avdekke om dine spillere må trene ekstra mye på balanse- og koordinasjonsstyring av kneet. Testene er viktig å gjennomføre fordi vi vet at de fleste alvorlige kneskadene skjer under landinger, og i situasjoner som krever raske retningsforandringer, som for eksempel i en finte i håndball eller fotball. Alle spillerne på laget bør gjøre disse testene, og dere bør hjelpe hverandre med utførelsen. Som trener eller medspiller står du rett foran spilleren og ser hvordan de utfører testene. Spillere med en dårlig eller farlig landing og/eller ettbeins knebøy bør trene ekstra mye styrke, balanse, koordinasjon og bevisstgjøring av kneposisjonen i ulike treningssituasjoner.

FALLHOPPTESTEN



RIKTIG LANDING:
Be spilleren om å hoppe opp ned fra en middels høy kasse. Hopp direkte så høyt opp du klarer og land igjen med kne over tå.



DÅRLIG LANDING:
Dårlig/farlig landing fordi knærne glir innover i landings-øyeblikket. Du må trene mye balanse, styrke og koordinasjon med kne over tå.

ETTBEINSKNEBØYTESTEN



RIKTIG KNEBØY:
Godt utført knebøy ettbeinsknebøy med en tydelig «kne-over tå»-posisjon.



DÅRLIG KNEBØY:
Vriding i hoften og et kne som glir innover er gal knebøy. Du må trene mye balanse, styrke og koordinasjon med kne over tå.

Akutthjelp ved ankelovertråkk

Er skaden først skjedd, bør ankelen avlastes og akuttbehandlingen bør starte øyeblikkelig. Riktig behandling får deg raskere tilbake til håndball.

SLIK GJØR DU:



Legg papir eller en hesteskoformet skumgummipute rundt ankel-knoken for å lage en ekstra kompresjon rundt skadeområdet. For å unngå frostskader, dekker du huden med papir eller en sokk før du legger på isposen både på inn- og utsiden av ankelen (bruk to isposer).



Klem hull på innerposen (ikke slå eller kast den i gulvet, da bli ødelagt). Rist posen slik at innholdet i inner- og ytterposen bla godt, da blir kuledeeffekten maksimal. Plasser isposene midt ankelknoken både på inn- og utsiden.



Fest kuldepakningen med et elastisk bind. Kompresjonsbandasjen legges stramt rundt ankelleddet.



Bandasjen legges på fra forfoten og oppover med lett trykk, men sa med stram kompresjon over ankelknokene. Isposene vil fors kompresjonseffekten av det elastiske bindet når den er riktig a



Utøveren plasseres med beinet over hjertehøyde i minst en halvtime. Kuldeeffekten kan forlenges ved at man av og til rister pakningen og foten. Nødvendig transport skjer med avlastning (krykker), og isposene utnyttes til å gi maksimal kompresjon under transport, selv om kuldeeffekten har gitt seg.



Når du er kommet hjem gjennomføres kompresjonsbehandling kontinuerlig bruk av elastisk bind. Minimum de to første døgnen så lenge det er hevelser rundt leddet. Nedkjøling kan gjennom i 20 minutter hver tredje til fjerde time.

PRICE

Har skaden først skjedd, er det viktig å vite hva du skal gjøre. PRICE-prinsippet er det viktigste stikkordet.

De fleste akutte skader kjennetegnes ved umiddelbar blødning. Ved en akutt leddbåndsskade i ankelen vil et betydelig hematom (blodansamling) være synlig innen få minutter uten behandling. Akuttbehandlingen skal begrense blødningen, noe som vil begrense betennelsesreaksjonen, og lette opptreningen. På engelsk kalles akuttbehandling av idrettsskader PRICE.

Det er avgjørende for utfallet av skaden at effektiv PRICE-behandling igangsettes så fort som mulig – selv før man har en sikker diagnose. IKKE TAP TID! Man må bare sikre seg at skaden ikke er så alvorlig at utøveren umiddelbart bør sendes til sykehus. God førstehjelp etter disse prinsippene bidrar til at det ofte blir lettere å stille en eksakt diagnose (bl.a. fordi det er mindre hevelse).

PRICE-behandlingen må fortsette kontinuerlig i 1-2 døgn for å være effektiv.

I noen tilfeller vil det være aktuelt å benytte betennelsesdempende midler i tillegg til akuttbehandlingen. De må kun benyttes i samråd med lege, og skal benyttes i kort tid (3-5 dager).

P er Protection (beskyttelse)

Skadestedet må beskyttes mot ytterligere skade, og det er spesielt viktig de første 48 timer. Grunnen er at i denne perioden vil det fortsatt kunne blø inne i det skadde vevet.

R er Rest (hvile)

Skadestedet skal holdes i ro, det vil for eksempel si at man ikke skal tråkke ned på en skadet ankel. Begrunnelsen er den samme; å unngå blødning.

I er Ice (nedkjøling)

Nedkjøling virker først og fremst smertedempende. Ved å redusere temperaturen på skadestedet kan også blødningen bli mindre. Man kan bruke knust is, kjølepakninger eller kjølespray til dette. Man bør kjøle ned i hvert fall de første 4–8 timer, eller så lenge det gjør vondt. Det kan gjøres ved at man kjøler ned med rennende kaldt vann i 20 minutter hver 3. til 4. time.

C er Compression (kompresjon med trykkbandasje)

Man legger en trykkbandasje rundt skadestedet. Den skal være så stram som mulig, men uten å strupe sirkulasjonen forbi skadestedet. Kompresjonen bør opprettholdes de første 48-72 timer.

E er Elevation (elevasjon, å få den skadde kroppsdelen opp)

Det skadede stedet skal holdes høyt (over hjertehøyde). Blodtrykket blir da lavere på skadestedet, og man minsker blødningen.



HVA TRENGER DU:

Elastisk bandasje: Vesentlig å ha ved akutte skader, finnes i forskjellige bredder

Engangs isposer: Brukes som nedkjøling, virker først og fremst smertedempende, isposen slås sund og legges over det skadde området

Uelastisk tape (sportstape): Brukes hyppig i forbindelse med taping av idrettsskader, er ikke egnet for akutte skader, men brukes litt ut i rehabiliteringsforløpet for å stabilisere ledd

Elastisk tape med lim: Legges på i forbindelse med en akutt skade og kan brukes i de første døgnene av en akuttskade eller så lenge det er hevelse i det skadde området

Engangshøvel: Fjern hår før sportstapen legges på (ikke så viktig i den akutte fasen)

Tapesaks: Gjør det enklere å fjerne tapen

Tynn skumgummi: Ekstra kompresjon og beskytter huden mot frostskader når man legger på is



Godt samspill

Bjørklund har sponset Håndballjentene i seks år. Det har de lært mye av ifølge daglig leder, Kai Gustav Piene.

Helge Bjørklund sørget for at den aller første Bjørklund-butikken så dagens lys i 1983 på Gunerius kjøpesenter i Oslo. I 1992 startet Bjørklund som franchisekjede, og siden den gang er de blitt en av landets mest kjente og populære ur- og gullsmedkjeder.

– Som kombinasjonskjede for både ur og smykker, er vi ledende i landet. Begge bransjer har lange håndverkstradisjoner, og det at vi mestrer begge deler er kanskje det som klarest skiller oss fra våre konkurrenter. Vi har dessuten en filosofi om at vi skal ha alle varene framme i butikken, slik at kundene opplever det som uforpliktende å komme inn til oss, forteller Piene, som har vært daglig leder i kjeden de siste to årene.

HØY KJENNSKAP

Det kan se ut som de lykkes godt, for Bjørklund har høy kjennskap på landsbasis, ifølge undersøkelser som er gjort. 95 prosent av de spurte i Oslo og Akershus har kjennskap til kjeden, og når det gjelder hvor forbrukerne foretrekker å handle svarer 18 prosent Bjørklund innenfor bransjen ur, gull og optikk. Tar man bort optikk blir prosentandelen vesentlig høyere.

– Et av målene våre er å være det foretrukne valget for forbruker, men også for utleier, ansatte og franchisetakere. Det er et stort mål for oss å ha en høy servicegrad, og vi kurser våre ansatte og franchisetakerne flere ganger i året, forteller Piene. Gjennom et nettbasert tilbakemeldingssystem får vi kontinuerlig svar fra sluttkunder på hvordan hver enkelt butikk presterer servicemessig. Så langt i år har kjeden fått inn svar fra 4500 kunder og har en kundetilfredshet på 90,5 prosent.

Det er et høyt tall, som Bjørklund kan være godt fornøyd med.

INSPIRASJON FRA HÅNDBALLJENTENE

Bjørklund har vært samarbeidspartner for NHF og Håndballjentene de siste seks årene. Ifølge Piene har de fått mye ut av samarbeidet, både når det gjelder inspirasjon, kjennskap og hva Bjørklund assosieres med.

– Vi har helt fra starten sett at Håndballjentene har en unik posisjon hos folk. De appellerer til hele kundegruppen vår, og vi føler det er en perfekt match i forhold til å nå hele kundegruppen. Det er mange som har sett oss i forbindelse med Håndballjentene, og det er hyggelig å bli forbundet med dem. De har jo også gjort det veldig bra i denne perioden.

Bjørklund sponser også Bjørklund Cup, for å kunne henvende seg til de yngre brukerne. Den kommersielle biten er en del av sponsingen, men Bjørklund har også fått mye ut av samarbeidet når det gjelder inspirasjon.

– Vi har lært mye av det Marit Breivik snakker om når det gjelder lagspill. Som franchisekjede er vi helt avhengig av et godt samspill mellom franchisegiver og butikkene våre, og Håndballjentenes fokus på lagspill har således vært en fin inspirasjonskilde. Vi har også hatt nytte av tankegangen til Breivik når det gjelder å tenke langsiktig og se muligheter i hver enkelt lagspiller.



BJØRKLUND

Bjørklund har i dag i underkant av 70 butikker i hele landet.
De neste fire-fem årene planlegger kjeden 15-20 butikker.
Service og kundetilfredshet står meget sterkt i kjedens verdier.
Kjeden selger 35 prosent klokker, og 65 prosent smykker.

Norges Håndballforbunds hovedsamarbeidspartnere:





















Norges Håndballforbunds øvrige partnere:























SANGGLADE VERDENSMESTERE

De norske beach-håndballjentene gjorde stor suksess i sommerens beach-VM i Tyrkia, og etter å ha beseiret Danmark på stranda i Antalya kunne jentene juble for VM-gull. Glade, nybakte verdensmestere fra Norge vet å vise glede og sang med av full hals da nasjonalsangen ble spilt. En ekstra grunn til å juble fikk de norske jentene da Ane Brustuen ble kåret til VMs beste spiller. Norges lag besto av Ingrid Ødegård, Kathrine Hjelmeland, Gina Lorentsen, Iselin Klev, Anette Galåen, Rannveig Haugen, Ane Brustuen, Betina Riegelhuth, Arnhild Holmlimo og Sissel Nygård Pedersen. Foto: Axel Heimken, IHF

FAIR PLAY

Norges Håndballforbund

umbro

DRAKTA HÅNDBALL

LAGET FÅR

60%

RABATT PÅ UTSALGSPRIS



EKSEMPEL:

ROMA DRAKTSETT- TRØYE, SHORTS OG STRØMPER TIL 15 SPILLERE + KEEPER

VEIL PRIS 8 153,-

FAIR PLAY PRIS:

3261,-

GJENNOM FAIR PLAY PROGRAMMET BIDRAR

NORSK TIPPING

MED 3000 UMBRO DRAKTSETT TIL NORSK BREDDE-HÅNDBALL ÅRLIG! KONTAKT DIN NÆRMESTE SPORTS-BUTIKK, OG SPØR ETTER FAIR PLAY DRAKTA FRA UMBRO. FAIR PLAY KAMPANJEN STARTER 15. AUGUST, OG GJELDER SÅ LANGT BEHOLDNINGEN REKKER.

Veronica Kristiansen- Verdensmester på Norges J18 landslag i håndball !

FAIR PLAY

Experience with preventiton of sport related injuries in Czech Handball

Jakub Pokorný, František Táborský, Martin Tůma

Charles University in Prague
Faculty of Physical Education and Sport
Department of Sport Games

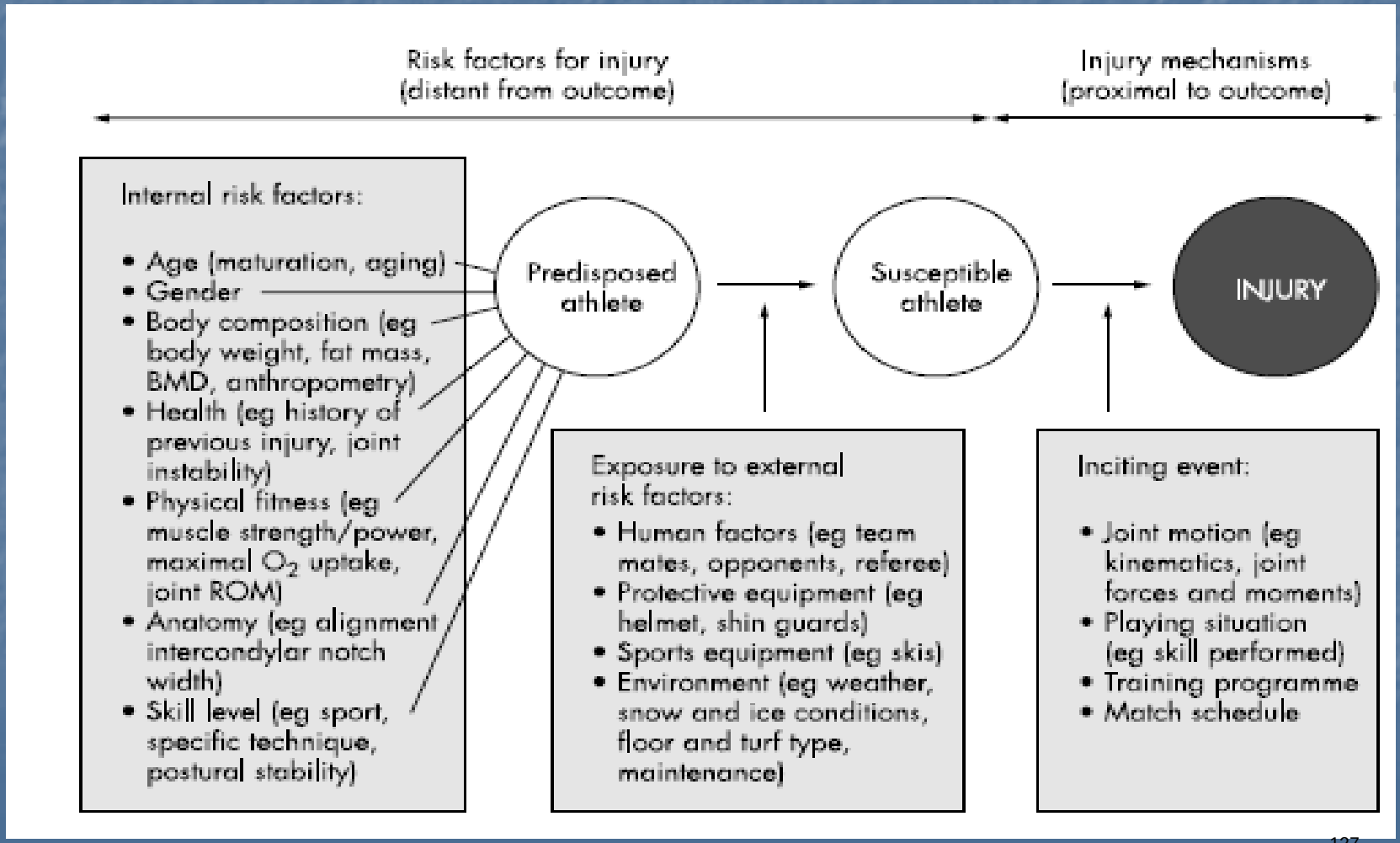
Sport injuries in Handball

1) Acute (macrotrauma) – joint sprain, bone fracture
2) Chronic (microtrauma, overuse) – stress fracture
3) Functional disorders (pain syndroms without structural pathology) – low back pain, shoulder pain

Sport injuries in Handball

- Multifactorial etiology
- Risk factors
- 1) Internal risk factors
  2) External risk factors
- 1) Influenceable
  2) Noninfluenceable
- Injury mechanisms

Dynamic model of sports injury



Prevention of sport injury in Handball

- Multifactorial approach – influenceable risk factors

Preventive programs – internal risk factors (Myklebust 2003, Olsen 2005, Petersen 2005, Pokorny 2007)

Preventive measures – external risk factors

Muscular system

- Internal and influenceable risk factor of sport injury
- 2 Muscular system with opposing characteristic (characteristic systematization)

1) Tonic muscles – hyperactivity, globar stabilizator, ontogeneticly older
2) Phasic muscles – hypoactivity, segmental stabilizator, ontogeneticly younger

Results of muscular imbalance

- Muscular imbalance – dysfunction coactivation of muscular groups
- Static and dynamic disorders of musculoskeletal system

1. Pain
2. Overuse syndroms
3. Acute and chronic sport injury
4. Muscular fatigue
5. Functional disorders

Prevention of sport injury in Czech Handball

- 47 hanball players (25 male, 22 female) from Handball sport youth center in Prague
- Average age 16,2 year (15 – 18 year)
- Preffer upper limb – 37 right, 10 left
- Player functions – 23 backcourt players, 13 wing players, 6 line players, 5 goalkeeper
- All players played at highest czech youth league

Study design

Input examination

↓

Exercises to improve muscular imbalances (10 months)

↓

Output examination

Examinations

- Input and output were indetical

1) Questionnaire – antropometrics characteristic, history of sport injuries
2) Testing of muscular system (Janda´s tests)
   a) testing of muscular shortness (7 test)
   b) testing of basic movement stereotype (6 tests)
3) Standardized testing of movement performance

Exercises

After input examinations 2 group of players

- 1 group (23 players) – „exercise" group
- 2 group (24 players) – „control" group

- Players from „exercise" group daily practise exercises to improve muscular imbalances

1) Stretching of shorten muscles (4 exercises)
2) Strenghtening of weak muscles (4 exercises)

Results

- High frequency of muscular imbalnce (interindividual and intersexual diferences)
- High incidence of acute sport injuries and functional disorders (more males)
- Existing of relation between muscular imbalance and risk of acute sport injuries and functional disorders
- Existing of relation between muscular imbalance and movement performance

Results

- Exercise group were improvement in output examination of testing of muscular systems
- Exercise group were lower frequency of acute sport injuries and functional disorders
- Exercise group were improvement in movement performance (males)

Results

- Long term practising of exercises improve muscular imbalance and reduce frueguency of acute sport injury and functional disorders

- Practise of exercises for muscular imbalance is one very important part of prevention of injuries in handball

Programové prohlášení TMK

1. Východiska
   - vzdělávání trenérů je nezbytnou podmínkou rozvoje házené v ČR a to jak v oblasti výkonnosti, tak v oblasti vývoje členské základny (mít trenéra, který ví „jak“ a umí děti „přivést“ k házené by mělo být zásadním požadavkem na klub, který chce přispět rozvoji házené v ČR. V opačném případě se „klub“ stává pouze zájmovou organizací skupiny dospělých, kteří uspokojují toliko vlastní potřebu pohybové aktivity)
   - prvotním smyslem vzdělávání je přenos informací a osvojování didaktických dovedností trenérů. Licence je „pouze“vyjádřením skutečnosti, že trenér byl o metodách, formách a principech trenérské práce poučen!
   - metodická činnost není možná bez aktivního přístupu VŠECH zainteresovaných (trenérů, „vzdělavatelů“ /lektoři/ a vrcholných orgánů ČSH)

2. Obecné výstupy
   Na základě výše uvedených formulací lze formulovat následující dlouhodobé zaměření práce TMK:
   - snažit se postupně přesvědčit hnutí, že vzdělávání je dlouhodobý proces, ve kterém MUSÍ převládat aktivita vzdělávaných nad aktivitou vzdělávajících , tzn. že kýženou osobou je trenér, který sám vyhledává informace a informační materiály a implementuje je do vlastní práce (semináře a školení jsou tedy místem, kde je přednostně uskutečňováno vzdělávání a nikoliv společenské setkání za účelem „protrpění“ času nutného k prodloužení licence pomocí konzumace vysoce energetických tekutin)
   - hledat cesty, jak poskytnout trenérům první impuls (informaci, že v některém dostupném zdroji je možno nalézt zajímavé poznatky), další práce s informací už musí být individuální záležitostí dotyčného
   - přesvědčit trenérskou „obec“ o smyslu aktivního vystupování při přenosu informací (vystoupení na seminářích, příspěvky do metodických stránek ČSH)- v tomto případě se jedná o vizi dlouhodobou, překračující časovou hranici funkčního období stávající TMK

3. Praktické výstupy
   Přes zjevnou „personální nouzi“ se TMK pokusí:
   - udržet stávající požadavky na obsah a formu školení všech stupňů. K tomu bude třeba upravit (rozšířit) složení lektorského sboru tak, aby jeho členy byly osoby nejen ochotné přednášet, ale i schopné samostatně uvažovat a jednat při naplňování obsahu a požadavků jednotlivých školících akcí v mezích možností jednotlivých členů a ve spolupráci s dalšími ochotnými příslušníky hnutí

     ⇩
   - hledat v rámci školení a seminářů další potenciální členy lektorského sboru, zejména z řad mladých trenérek a trenérů
   - vytvořit další učební pomůcky, použitelné nejen při školení ale i na dalších vzdělávacích akcích
   - udržet tradici pořádání jednoho celostátního tématického semináře pro trenéry ročně (mimo akce pořádané KM)
   - ve spolupráci s EK nalézt prostředky umožňující účast vybraných členů lektorského sboru na zahraničních vzdělávacích seminářích



ZÁSADY ŠKOLENÍ TRENERŮ

HÁZENÉ LICENCE B

EDUCATION SYSTEM TRAINER

Coaching Commission of the Czech Association methodology is based on a decision by the Czech handball association responsible for implementing the system of coach education in the Czech handball handball association. In accordance with License Code of the Czech handball association then set the conditions for obtaining licenses. A prerequisite for obtaining a trainer's license is the completion of training, including final examinations.

The following defines the basic characteristics of the training of trainers license B as the basic conditions for obtaining a trainer's license B.

ORGANIZATION OF TRAINING TRAINER LICENSE B

The organizer of the training of trainers license B is the Czech Handball Association, who is responsible for preparing and organizing the training in the extent of these "principles". For this purpose, the Secretary General of the Czech handball association to the proposal of the President coaching methodology committee from among the principal organizers of professional staff training. The main organizer of training in particular is obliged to provide training facilities and equipment, organize accommodation and catering trainees (including teachers) and economic requirements to implement training, including communication with Charles University in Prague and FTK UP Olomouc, the Czech Handball Association to provide a general part of training.

For content sites, including the cast of lecturers responsible Coaching Methodology Commission of the Czech handball association. For this purpose appoint the Head of training. Leader training is required to ensure compliance with the timetable and implementation of teaching in the scope and content prescribed by these Principles. Supervisor training must be responsible for coaching and methodological committees Czech handball association and must be a member of the teaching staff.

Main organizer and leader training courses are required to do everything for successful implementation of training.

Lecturers nominated by leading training, so that to advance the objects must cast members of teaching staff (in content are marked SS), or by external experts (in content are identified by the EC) or internal experts (in content are marked with the IS).

Czech Handball Association organizes training courses held once a year. Training is located alternately in the Czech Republic (in this case, the general part of training, Charles University, Prague) and Moravia (in this case, the general part of the training FTK UP Olomouc) in a given year is primarily intended for those interested in the field. Candidates from the other areas may receive training only if the participants from the region is less than the number set by the Czech Handball Association. They shall always be decided exclusively by a leading training.

A condition for making the training of trainers license B is logging at least 25 people, maximum possible number of participants is 35

ECONOMIC FINDINGS training of trainers license B

The organizer of the training title is the Czech Handball Association entitled to collect from the trainees' participation fee, which should be equal to the cost of necessary training. The training costs are mainly the cover above the general faculty for making part of the training, as well as fees and travel assistants, hiring halls and

classrooms, provision of equipment for the needs of individual lessons and rental of audiovisual equipment, all for the needs of specialized part of the training. The registration fee is the cost of accommodation and meals of participants in the specialized training.

Businesses must ensure that actions based on the NPV of Economics, in cases of economic NPV does not, the main organizer of the training progresses economically, so as to enhance the effects of excessive training costs and the amount of participation fee.

SCOPE AND CONTENT OF TRAINING OF TRAINERS LICENSED B

B license training must be provided within a range of 100 lessons, one lesson is 45 minutes. This range includes 35 hours of so-called "common basis" (organized by the appropriate faculty), 49 hours in a special section (30 hours of practical instruction and 19 hours of theoretical base) 6 hours in the final examinations and 10 hours of developing and defending change. Contents:

I. General background (EC)
4 hours Anatomy (kinesiology)
4 hours Sport Pedagogy
5 hours of sport psychology
8 hours Physiology
10 hours theory and methodology of sports training
4 hours of injury prevention

II. Specialist section
Part of the theory
3 hours fitness training (ST)
2 hours gaming performance (description,) (SS)
2 hours Diagnostics (SS)
2 hours Leadership team in the match (SS)
Special 2 hours of sports training for women (ST)
2 hours Scheduling (LS)
2 hours Legislation NPV (CI)
1 hour Methodology (types of training process in handball) (SS)
Sample Analysis 1 hour training session
The final two hours of work (setting, guidelines for processing) (SS)

Part of the practice
2 hours developing speed and endurance
1 hour preparation Force General
2 hours Development swing and impact strength
2 hours Assault individual sporting activities (extension subject matter)
2 hours Defensive individual sporting activities (getting the ball, block)
Situation 2 hours 1:1
2 hours combined Offensive
2 hours Defensive combination
3 hours quick attack and defense against
3 hours Assault Systems (progressive attack)
3 hours Defense Systems
2 hours Goalie Training
2 hours Methodical and organizational forms

2 hours Sample Training Unit

Completion of training of trainers license B
To obtain license B is obliged, in addition to the provisions of License order to successfully complete a training of trainers license B. The successful completion of training of trainers license B is considered to be:
a) completion of at least 80% of teaching hours
b) submitting and defending theses
c) successfully passed the final test of knowledge of subject matter.
The content of the test determine NPV TMJ Examination Commission determined leader training.
Successful completion of training of trainers B license entitles the graduate to apply for the issue of a trainer's license B with all the formalities under the provisions of License Procedure NPV. The issue of a trainer's license does not graduate the license policy NPV.
Note:
In justified cases (medical or educational training participant), the head of training at the written request and submit evidence of training to enable trainees missed some lessons.

SYSTÉM VZDĚLÁVÁNÍ TRENÉRŮ

Trenérsko metodická komise Českého svazu je na základě rozhodnutí orgánů Českého svazu házené odpovědna za realizaci systému vzdělávání trenérů házené v rámci Českého svazu házené. V souladu s Licenčním řádem Českého svazu házené pak stanovuje podmínky pro získání licencí. Základní podmínkou pro získání trenérské licence je absolvování školení včetně složení závěrečných zkoušek.

Následující text vymezuje základní charakteristiky školení trenérů licence B jako základní podmínky pro získání trenérské licence B.

ORGANIZACE ŠKOLENÍ TRENERŮ LICENCE B

Organizátorem školení trenérů licence B je Český svaz házené, který odpovídá za přípravu a organizaci celého školení v rozsahu daném těmito „Zásadami“. Za tímto účelem stanoví generální sekretář Českého svazu házené na návrh předsedy Trenérsko metodické komise z řad profesionálních pracovníků hlavního pořadatele školení. Hlavní pořadatel školení je povinen zejména zajistit výukové prostory a pomůcky, organizovat ubytování a stravování účastníků školení (včetně lektorů) a realizovat ekonomické náležitosti školení, včetně komunikace s FTVS UK Praha a FTK UP Olomouc, které pro Český svaz házené zajišťují obecnou část školení.

Za obsahovou stránku včetně lektorského obsazení odpovídá Trenérsko metodická komise Českého svazu házené. Za tímto účelem ustanoví vedoucího školení. Vedoucí školení je povinen zajistit splnění časového plánu a realizaci výuky v rozsahu a obsahu předepsaném těmito „Zásadami“. Vedoucí školení musí být pověřen trenérsko-metodickou komisí Českého svazu házené a musí být členem lektorského sboru.

Hlavní pořadatel školení a vedoucí školení jsou povinni učinit vše pro zdárnou realizaci školení.

Lektory nominuje vedoucí školení a to tak, že pro předem dané předměty je povinen obsadit členy lektorského sboru (v obsahu jsou označeni LS), popřípadě externími specialisty (v obsahu jsou označeni ES) nebo interními specialisty (v obsahu jsou označeni IS).

Český svaz házené organizuje školení vždy jedenkrát za rok. Školení je střídavě lokalizováno do oblasti Čech (v tom případě zajišťuje obecnou část školení FTVS UK Praha) a Moravy (v tom případě zajišťuje obecnou část školení FTK UP Olomouc) a v daném roce je přednostně určeno pro zájemce z dané oblasti. Zájemci z druhé oblasti se mohou školení zúčastnit pouze v případě, že účastníků z dané oblasti je méně, než počet určený Českým svazem házené. O jejich přijetí rozhoduje vždy a výhradně vedoucí školení.

Podmínkou pro uskutečnění školení trenérů licence B je přihlášení minimálně 25 osob, maximální možný počet účastníků je 35.

EKONOMICKÉ ZJIŠTĚNÍ ŠKOLENÍ TRENERŮ LICENCE B

Z titulu pořadatele školení je Český svaz házené oprávněn vybrat od účastníků školení účastnický poplatek, který by měl být roven nezbytným nákladům na školení. Za náklady na školení lze považovat zejména úhradu výše uvedeným fakultám za uskutečnění obecné části školení, dále odměny, ubytování a cestovné lektorů, nájem haly a učeben, zajištění pomůcek pro potřeby jednotlivých lekcí a nájem audiovizuální techniky, vše pro potřeby specializované části školení. Součástí účastnického poplatku jsou náklady na ubytování a stravování účastníků v rámci specializované části školení.

Ekonomické zajištění akce musí vycházet z Ekonomické směrnice ČSH, v případech, které Ekonomická směrnice ČSH neupravuje, postupuje hlavní pořadatel školení hospodárně, tak aby neúměrně nezvyšoval náklady na školení a výši účastnického poplatku.

ROZSAH A OBSAH ŠKOLENÍ TRENERŮ LICENCE B

Školení licence B musí být organizováno v rozsahu 100 vyučovacích hodin, přičemž jedna vyučovací hodina má 45 minut. Tento rozsah zahrnuje 35 vyučovacích hodin tzv. „obecného základu“ (zajišťuje příslušná fakulta), 49 vyučovacích hodin ve specializované části (30 hodin praktické výuky a 19 vyučovacích hodin teoretického základu) 6 vyučovacích hodin v rámci závěrečných zkoušek a 10 hodin na vypracování a obhájení závěrečné práce.

Obsah:

I. Obecný základ (ES)

4 hodiny	Anatomie (kineziologie)
4 hodiny	Pedagogika sportu
5 hodin	Psychologie sportu
8 hodin	Fyziologie
10 hodin	Teorie a didaktika sportovního tréninku
4 hodiny	Úrazová prevence

II. Specializovaná část

Část teorie

3 hodiny	Kondiční příprava (LS)
2 hodiny	Herní výkon (popis, charakteristiky) (LS)
2 hodiny	Diagnostika (LS)
2 hodiny	Vedení družstva v utkání (LS)
2 hodiny	Zvláštnosti sportovního tréninku žen (LS)
2 hodiny	Plánování (LS)
2 hodiny	Legislativa ČSH (IS)
1 hodina	Didaktika (druhy tréninkového procesu v házené) (LS)

1 hodina Rozbor ukázkové tréninkové jednotky
2 hodiny Závěrečná práce (zadání, pokyny ke zpracování) (LS)

Část praxe
2 hodiny Rozvoj rychlosti a vytrvalosti
1 hodina Všeobecná silová příprava
2 hodiny Rozvoj švihové a odrazové síly
2 hodiny Útočné herní činnosti jednotlivce (rozšiřující učivo)
2 hodiny Obranné herní činnosti jednotlivce (získávání míče, blok)
2 hodiny Situace 1:1
2 hodiny Útočné kombinace
2 hodiny Obranné kombinace
3 hodiny Rychlý útok a obrana proti němu
3 hodiny Útočné systémy (postupný útok)
3 hodiny Obranné systémy
2 hodiny Trénink brankáře
2 hodiny Metodicko-organizační formy
2 hodiny Ukázková tréninková jednotka

ABSOLVOVÁNÍ ŠKOLENÍ TRENERŮ LICENCE B

Pro získání licence B je účastník povinen, kromě ustanovení Licenčního řádu úspěšně absolvovat školení trenérů licence B. Za úspěšné absolvování školení trenérů licence B se považuje:

a) absolvování alespoň 80% výukových hodin,
b) předložení a obhájení závěrečné práce
c) úspěšné složení závěrečného testu ze znalostí probrané látky.

Obsah testu určí TMK ČSH, zkušební komisi určí vedoucí školení.

Úspěšné absolvování školení trenérů licence B opravňuje absolventa zažádat o vystavení trenérské licence B se všemi náležitostmi dle ustanovení Licenčního řádu ČSH. Do vystavení trenérské licence nesplňuje absolvent podmínky licenční politiky ČSH.

Pozn.:

V odůvodněných případech (medicínské či pedagogické vzdělání účastníka) může vedoucí školení na základě písemné žádosti a předložení dokladů o vzdělání povolit účastníkovi školení vynechání některých výukových hodin.

ČESKÝ SVAZ HÁZENÉ



TESTOVÁNÍ
POHYBOVÉ VÝKONNOSTI V HÁZENÉ

Autoři: Jana Šafaříková a kol., Praha 2009

(třetí, doplněné a aktualizované vydání)

Úvod ke třetímu aktualizovanému vydání

Materiál s názvem „Testování pohybové výkonnosti v házené“ vznikl v roce 2005 z několika důvodů. Prvním byla skutečnost, že Sportovní centra mládeže (SCM), která na základě smlouvy s Českým svazem házené dostávají finanční dotaci na zkvalitnění sportovní přípravy (za účelem přípravy hráčů a hráček pro potřeby reprezentace), musí povinně absolvovat 2 x ročně testování pohybové výkonnosti. Kondiční připravenost hráčů a hráček SCM, která se prokáže ve výkonech v jednotlivých testech a sumou bodů, následně ovlivňuje výši přidělované finanční dotace. Dalším důvodem byl fakt, že poslední publikace, která se zabývala testováním pohybové výkonnosti v házené, vyšla v roce 1989. Za 16 let došlo nejen ve společnosti, v jednotlivých oborech či odvětvích, ale i v házené k určitému, zcela pochopitelnému vývoji. Proto bylo záměrem autorů na tyto vývojové posuny či změny zareagovat i v oblasti testování pohybové výkonnosti.

Součástí publikace z roku 2005 je testová baterie, podrobný popis jednotlivých testů, pokyny k testování, bodovací normy pro seniorské a dorostenecké kategorie, bodovací normy k doporučeným testům pro dorostenecké kategorie a formuláře pro záznam výkonů. Popis testů zahrnuje u každého testu informace o materiálním vybavení, přípravě testu, o činnosti testovaného hráče a hráčky, pravidlech testu a o způsobu hodnocení výkonu v testu.

V dorosteneckých kategoriích obou složek jsou normy některých testů přepracované. Pro období 2005-2009 se nepředpokládají u těchto kategorií další úpravy. K úpravě norem došlo na základě vyhodnocení testování SCM v období 2002 – 2005. Pro seniorské kategorie zůstávají normy prozatím beze změn.

Testová baterie se skládá z povinných šesti testů a dvou doporučených testů. Doporučené testy jsou uvedeny z následujících důvodů. V letech 1978 – 1990 se osvědčily u žactva a mládeže. Testem hloubka předklonu se kontroluje, zda během puberty a po ní nedochází k nežádoucímu zkracování zádového svalstva a svalů na zadní straně nohou. Test přihrávání o stěnu na čas je ukazatelem dovednosti hráče a hráčky manipulovat s míčem po dobu 15 – 25 vteřin (zejména zapojením předloktí, zápěstí a prstů). Vzdálenost 3 m od stěny vyžaduje od testovaných házet míč i dostatečnou intenzitou, aby létal po co nejkratší dráze.

Vzhledem ke skutečnosti, že se v textu objevují na první pohled podobné slovní termíny (pojmy), které však mají odlišné významy, dovolují si autoři hned v úvodu na ně poukázat:
Norma – jedenáctistupňová daná pro každý test u každé věkové kategorie a pohlaví.
Normativ – požadavek (ustanovení) daný součtem bodů v jednotlivých testech, které musí hráč (hráčka) SCM splnit, aby mohl (a) nastoupit k mistrovským utkáním. Normativ stanovuje Komise talentované mládeže, včetně výše „postihu“ za nesplnění normativu.

V červnu roku 2006 došlo k aktualizaci materiálu. Na základě vyhodnocení výsledků testování sportovních tříd za období 2001 – 2006 byly přepracovány normy i pro žákovské kategorie. Zásadní změnou u těchto norem je, že jsou vypočítány pro každý rok kategorie mladšího a staršího žactva (pro 6., 7., 8., 9. třídu). Jinými slovy na hráče a hráčky, kteří jsou v kategorii mladšího žactva prvým rokem, se vztahují jiné

(mírnější) normy než pro ty, kteří jsou v téže soutěžní kategorii druhým rokem. Podobně je tomu u staršího žactva. Důvody pro toto rozhodnutí:

- U významné většiny testů rozdíly mezi průměrnými výkony chlapců (podobně i mezi průměrnými výkony dívek) v jednotlivých věkových ročnících byly natolik statisticky rozdílné, že vytvoření norem po ročnících bylo věcně oprávněné.
- Nepřímo se tím potvrzuje skutečnost, že čtyřleté žákovské období je etapou s velkými morfologickými a fyziologickými změnami. Chlapci a děvčata se každým rokem výrazně mění a během dvou let, navíc ještě vlivem zvýšené sportovní přípravy jsou schopni své výkony hodně zlepšit.
- Vývoj některého chlapce či dívky může být oproti běžné populaci urychlený nebo zpožděný. Norma vypočítaná pro dvouletý cyklus by vůči takovýmto jedincům byla méně citlivá než norma platná pro jeden rok dítěte.
- Nově zpracované normy usnadní i práci trenérům.

Pod pojmem hráč se v dalším textu rozumí i hráčka.

V srpnu roku 2009 byl tento materiál opět aktualizován zejména s ohledem na skutečnost, že Výkonný výbor ČSH rozhodl o povinném testování všech družstev, která se zúčastní soutěží Zubr Extraligy, WHIL a rovněž všech družstev SCM v soutěžním ročníku 2009/2010. Smyslem tohoto rozhodnutí je poskytnout hráčům (hráčkám) a trenérům družstev objektivní a komparativní údaje o pohybové připravenosti hráčů a hráček.

Autorský kolektiv:
J. Šafaříková (vedoucí autorského kolektivu), B. Cepák, P. Čejka, V. Haber, J. Mika, J. Tkadlec

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A. TESTOVÁ BATERIE

1. Běh na 2 x 15 m
2. Driblink na 30 m
3. Pětiskok
4. Hod míčem do dálky z místa
5. Běh na 10 x 20 m
6. Dvanáctiminutový běh

Doporučené testy:
Hloubka předklonu
Přihrávání o stěnu na čas

B. POPIS TESTŮ

Test 1

Běh na 2 x 15 m

Materiální vybavení:
Hřiště na házenou, stopky nebo elektrická časomíra (fotobuňky), pásmo, lepicí páska.

Příprava testu:
Dvěma rovnoběžnými čarami se vyznačí úsek 15 m. Při elektrické časomíře je ještě před startovní čarou ve vzdálenosti 0,5 m rovnoběžně s ní pomocná čára pro výchozí postavení hráče. Elektrická časomíra je v úrovni startovní čáry. (Obr. 1).

Činnost hráče:
a) Při měření stopkami:
Běží se souvisle dva patnáctimetrové úseky ve sportovní obuvi z polovysokého startu na zrakový signál, kterým je následující pohyb paže:
upažit – připrav se
vzpažit – pozor
upažením připažit – vpřed.
Hráč smí vyrazit opačným směrem až po dotyku nebo překročení vyznačené čáry jednou nohou.

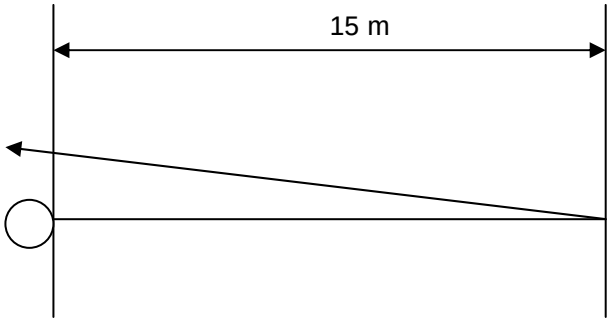
b) Při měření elektrickou časomírou:
Běží se souvisle dva 15 metrové úseky ve sportovní obuvi z polovysokého startu. Hráč zaujímá postavení těsně za pomocnou čarou, startuje sám po předběžném souhlasu osoby u elektrické časomíry. Hráč smí vyrazit opačným směrem až po dotyku nebo překročení vyznačené čáry jednou nohou.

Pravidla:
Test tvoří dvojí proběhnutí úseku předepsaným způsobem. Provádí se dvakrát proudovou metodou.

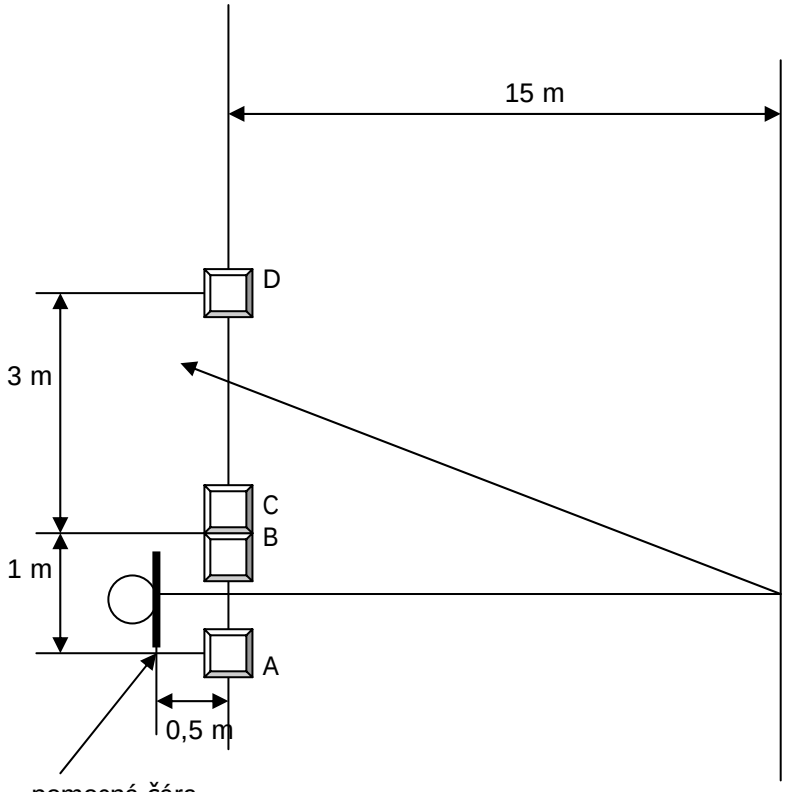
Hodnocení:
Čas od startovního povelu vpřed, u elektrické časomíry od proběhnutí roviny nad startovní čárou do proběhnutí druhého úseku s přesností 0,01 sekundy. Kritériem výkonnosti v testu je lepší čas. Zapisují se výsledky obou pokusů.

Obrázek 1

a)



b)



Fotobuňky
A – B (startovní)
C – D (cílová)

pomocná čára

Test 2

Driblink na 30 m

Materiální vybavení:
Hřiště na házenou, 6 míčů na házenou odpovídající hmotností a rozměrem testované kategorii hráčů a hráček, stopky nebo elektrická časomíra (fotobuňky), pásmo, lepicí páska.

Příprava testu:
Dvěma rovnoběžnými čarami se vyznačí úsek 30 m. Při elektrické časomíře je ještě před startovní čarou ve vzdálenosti 0,5 m rovnoběžně s ní pomocná čára pro výchozí postavení hráče. Ve 30 m úseku je další čarou podle obr. 2 vyznačen prostor prvého úderu míče. Elektrická časomíra je v úrovni startovní a cílové čáry. (Obr. 2)

Činnost hráče:
a) Při měření stopkami:
Hráč startuje z hráčského střehu těsně za startovní čarou na zrakový signál (pohyb paží – viz test 1), v rukou drží míč. Vypouští jej z rukou současně s prvým krokem do prostoru 30 metrového úseku, maximálně 1,5 m za startovní čarou. Míč nesmí kulminovat nad temenem běžícího hráče. Po proběhnutí 30 metrového úseku musí hráč zakončit test chycením míče (míč může chytit nejdříve po proběhnutí cílem).

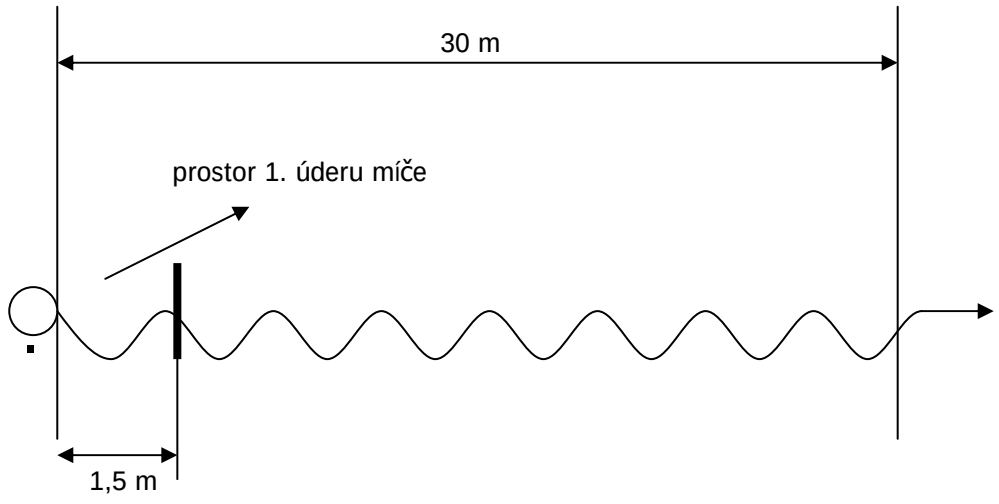
b) Při měření elektrickou časomírou:
Hráč startuje z hráčského střehu těsně za pomocnou čarou sám po předběžném souhlasu osoby u elektrické časomíry (dále viz a).

Pravidla:
Provádí se dvakrát proudovou metodou. Nesmí se porušit pravidlo hraní míčem.

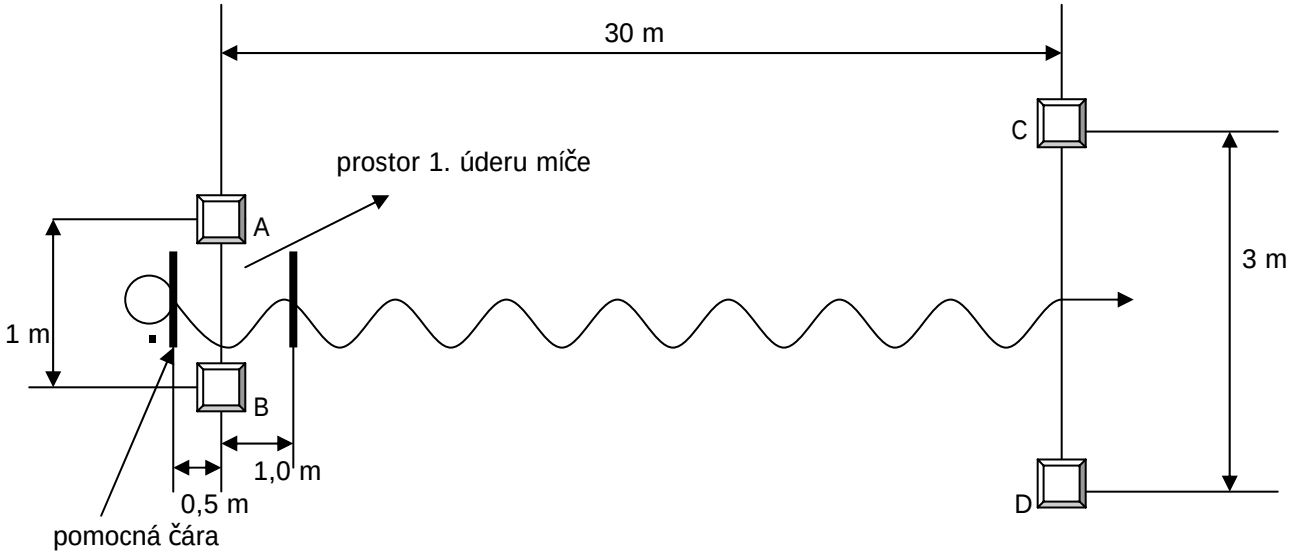
Hodnocení:
Čas od startovního povelu vpřed, u elektrické časomíry od sepnutí fotobuňky do proběhnutí cílem s přesností 0,01 sekundy. Kritériem výkonnosti v testu je lepší čas. Zapisují se výsledky obou pokusů.

Obrázek 2

a)



b)



Fotobuňky
A – B (startovní)
C – D (cílová)

Test 3

Pětiskok

Materiální vybavení:
Hřiště na házenou, pásmo, tyč minimálně 1 m dlouhá.

Příprava testu:
Pásmo se položí na zem číselnými údaji vzhůru. Nulová hodnota je na vnější straně čáry, která určuje místo prvního odrazu.

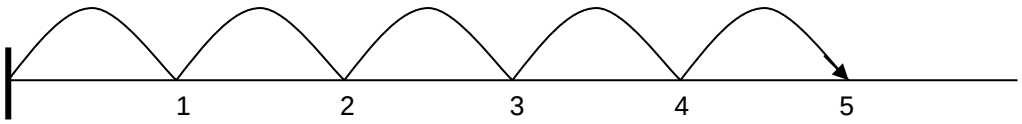
Činnost hráče:
Hráč stojí za čarou, která určuje místo prvního odrazu s odrazovou nohou vpředu. V blízkosti pásma a bez nakročení překonává pěti skoky pouze z odrazové nohy co největší vzdálenost, poslední dopad může být obounož. (Obr. 3)

Pravidla:
Provádí se třikrát proudovou metodou.

Hodnocení:
Zapisuje se délka všech tří pětiskoků s přesností 5 cm. K posouzení výkonu se používá tyč, kterou se označí místo posledního dopadu. Místem dopadu je nejbližší část chodidla či jiné části těla směrem k místu startu. Výkon se zaokrouhluje směrem

dolů (např. 10,54 cm se zapíše jako 10,50 cm). Při porušení některého pravidla testu se pokus započítává, ale neměří.

Obrázek 3



Test 4

Hod míčem do dálky z místa

Materiální vybavení:
Hřiště na házenou, 6 míčů 1 kg pro kategorii mužů, starších a mladších dorostenců, pro ostatní kategorie 6 míčů na házenou odpovídající hmotností a rozměrem testované kategorii, pásmo nejméně 25 m dlouhé, 6 kuželů pro vyznačení výseče.

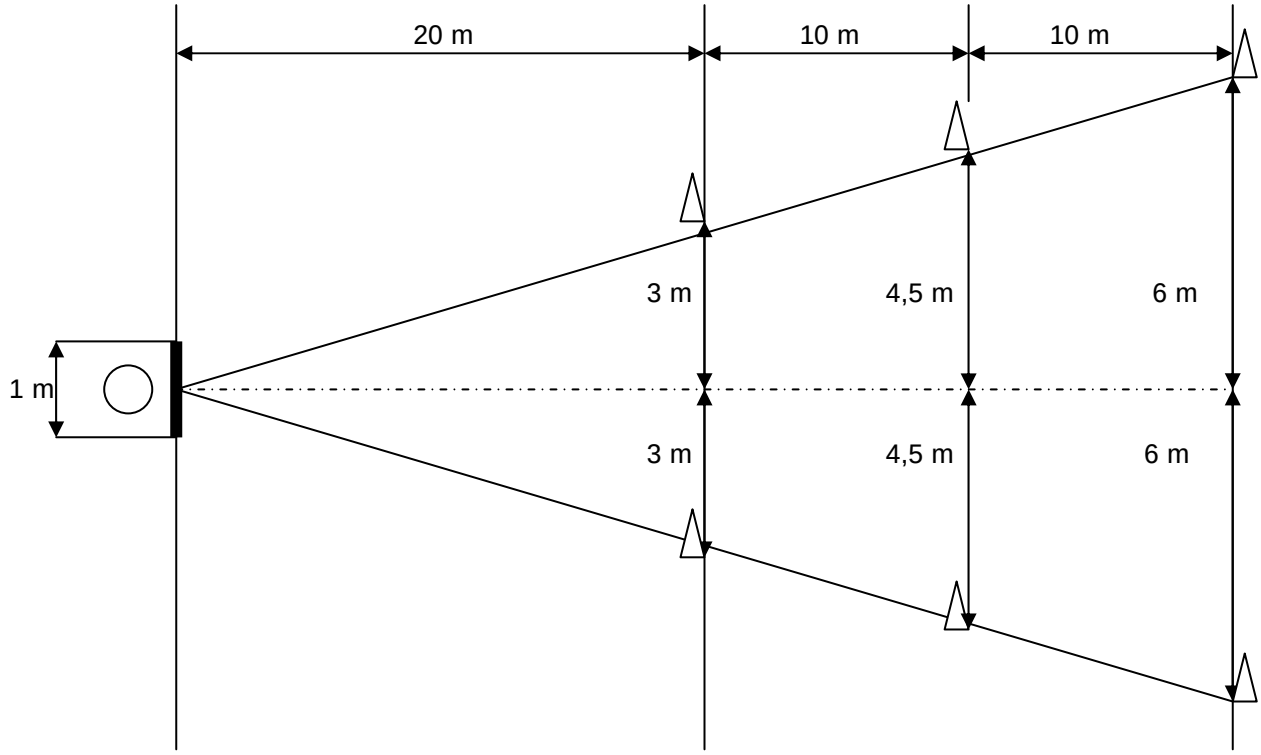
Příprava testu:
Na brankové čáře se vyznačí úsek 1 m široký. Kolmo na odhodovou čáru se položí na zem pásmo s číslicemi vzhůru. Ve vzdálenosti 20 m se dvěma kužely vyznačí šíře výseče, tj. 3 m na každou stranu od pásma. Dalšími 4 kužely se vyznačí výseč ve vzdálenosti 30 a 40 m dle obrázku 4. Je-li k dispozici jen kratší pásmo, pokládá se nulová hodnota pásma do vzdálenosti 20 m od odhodové čáry a tato hodnota se přičítá. Doporučuje se pro rychlejší čtení vyznačit v těsné blízkosti pásma kolmé čáry (např. po 1 m) a u nich připsat číslicemi vzdálenosti. Medicinbaly a míče je třeba před testováním ověřit! (Obr. 4)

Činnost hráče:
Hází se od odhodové čáry z místa vrchním způsobem jednoruč do výseče. Při provádění hodu se hráč musí nepřetržitě dotýkat země aspoň částí jedné nohy (obdobně jako při 7 metrovém hodu). Překročení čáry je možné až po odhodu.

Pravidla:
Hráč má tři pokusy bezprostředně za sebou. Hráč nesmí při hodu přešlápnout odhodovou čáru a míč musí padnout do výseče.

Hodnocení:
Zapisuje se délka všech platných hodů s přesností 10 cm. Vzdálenost se měří tak, že se vede myšlená kolmice od místa dopadu míče k pásmu. Při porušení některého pravidla testu se pokus započítává, ale neměří se. Kritériem výkonnosti v testu je nejlepší výkon.

Obrázek 4



Test 5

Běh na 10 x 20 m

Materiální vybavení:
Hřiště na házenou, stopky nebo elektrická časomíra (fotobuňky).

Příprava testu:
Dvacetimetrový úsek je vyznačen středovou a brankovou čarou. Na středové čáře test začíná i končí. Při elektrické časomíře je ještě před startovní čarou ve vzdálenosti 0,5 m rovnoběžně s ní pomocná čára pro výchozí postavení hráčů. Elektrická časomíra je v úrovni startovací čáry. (Obr. 5)

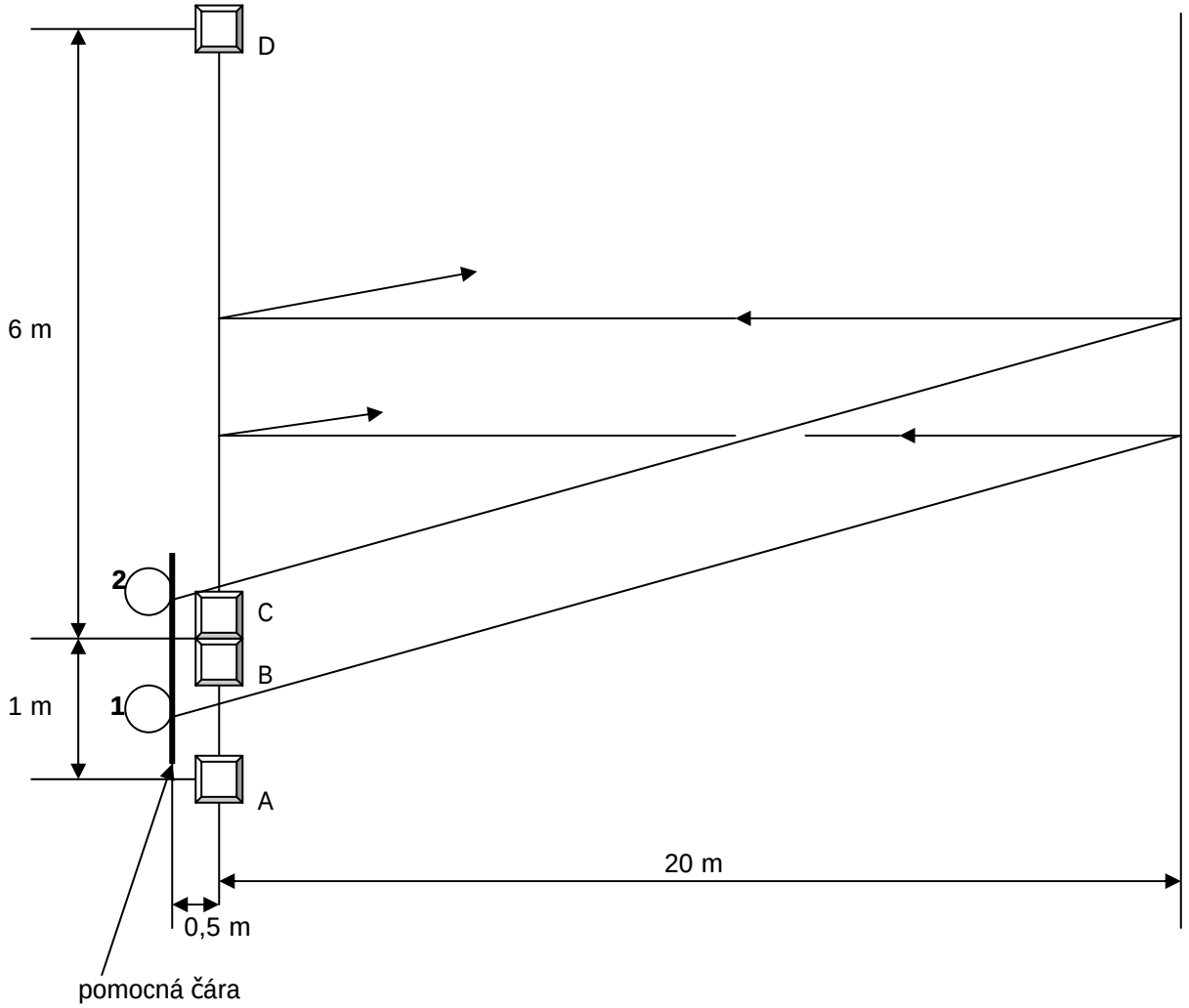
Činnost hráče:
a) Při měření stopkami:
Běží se souvisle deset dvacetimetrových úseků z polovysokého startu. Hráč smí pokaždé vyrazit opačným směrem až po dotyku nebo překročení vyznačených čar jednou nohou.
Provádí jeden či dva hráči současně. Startuje se na zrakový signál (pohyb paže – viz test 1).

b) Při měření elektrickou časomírou:
Hráči vybíhají z prostoru těsně za pomocnou čarou, z míst na obr. 5 vyznačených jako 1 a 2. Startují na stejný signál jako při měření stopkami. Dále běží po dráze vyznačené na obrázku a musí dodržovat pravidla testu jako při měření stopkami. Doběh obou hráčů musí být mezi fotobuňkami C a D.

Pravidla:
Test tvoří deset proběhnutí úseku předepsaným způsobem. V případě, že hráč poruší pravidla testu nebo z jiných objektivních důvodů (porucha časomíry apod.) pokus nedokončí, může vrchní rozhodčí testu výjimečně povolit nový pokus.

Hodnocení:
Zapisuje se čas od startovního povelu nebo u elektrické časomíry od sepnutí fotobuňky do proběhnutí 10. úseku s přesností 0,01 sekundy. Zapisuje se výsledek jediného pokusu a ten je považován za kritérium výkonnosti. Při porušení pravidel testu se výkon neměří.

Obrázek 5



Fotobuňky
A – B (startovní)
C – D (cílová)

Test 6

Dvanáctiminutový běh

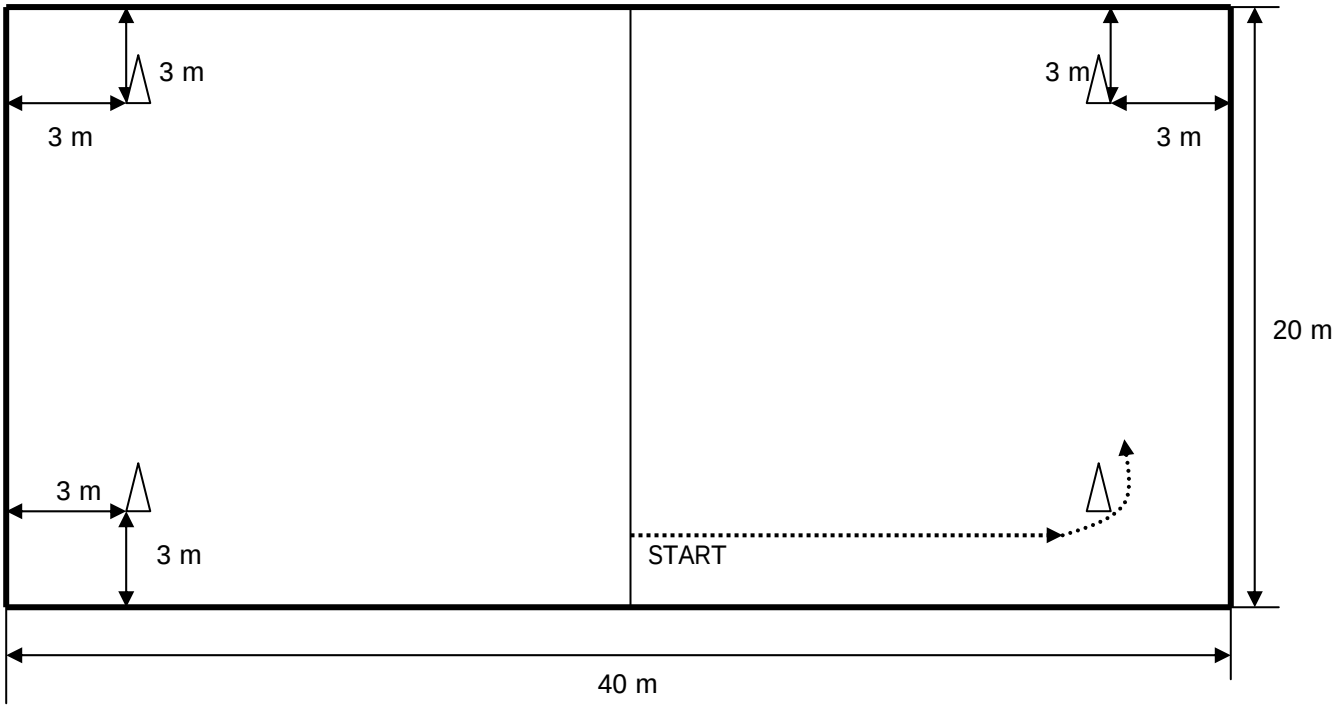
Materiální vybavení:
Hřiště na házenou o rozměrech 40 x 20 m, 4 kužele, hráčské dresy, startovní čísla, stopky, dle možností elektrická časomíra, píšťala.

Příprava testu:
Okruh na házenkářském hřišti se vyznačí 4 kužely na vrcholech obdélníka. (Obr. 6)

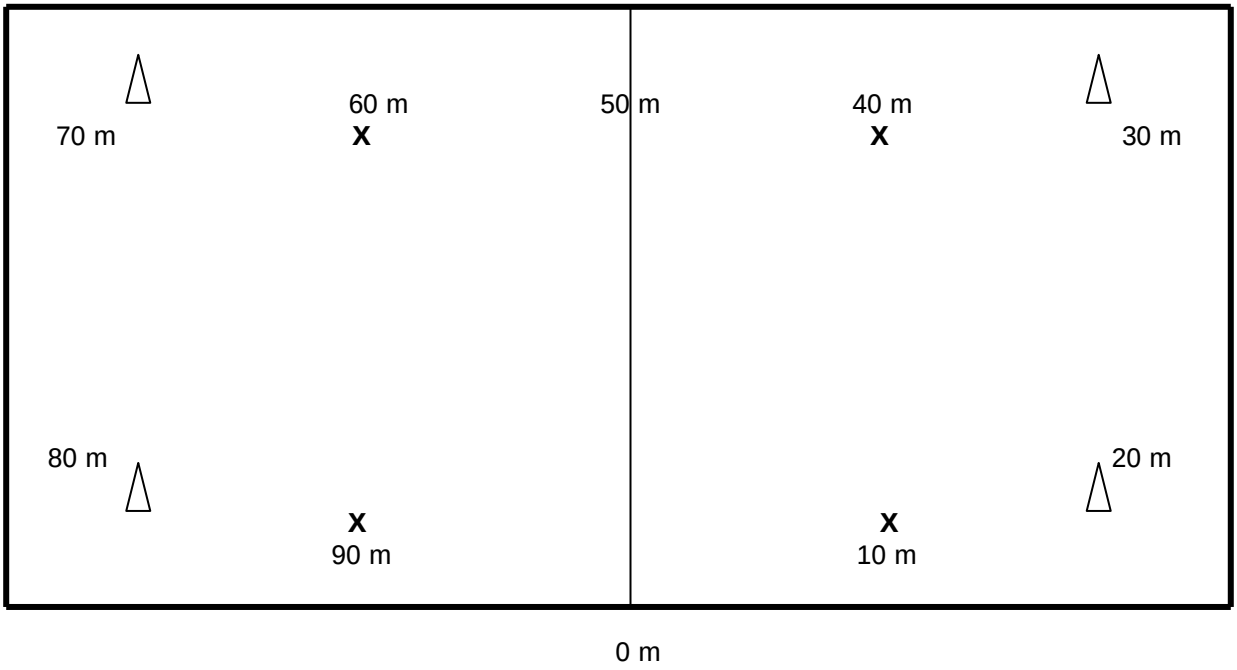
Činnost hráče:
Z vysokého startu hráč ve sportovní obuvi v dresu s číslem, resp. se startovním číslem běží tak, aby uběhl za vymezenou dobu co nejvíce metrů. Běh lze prokládat chůzí. Nejpozději v 11. minutě a v 11. minutě 30. sekundě hráči dostávají slovní informaci o čase. Informace umožňuje upravit tempo běhu. Ve 12. minutě zazní zvukový signál (píšťala nebo klakson) a hráči se zastaví na místě, kam doběhli.

Hodnocení:
Zapisuje se počet naběhaných metrů s přesností 10 m. U každého hráče se zaznamenává (na pomocný záznamní arch) počet naběhaných kol škrtáním čísla příslušného kola na připraveném záznamním archu (1 2 3 4 atd. - viz příloha 2) a počet metrů v nedokončeném kole (Obr. 7). Nakonec se zapíše celkový počet metrů s danou přesností do archu pro záznam výkonů ve všech testech.

Obrázek 6



Obrázek 7 – pomocné vzdálenosti v metrech (při zaokrouhlování na 10 m)



Doporučené testy:

Hloubka předklonu

Materiální vybavení:
Lavička, měřítko.

Příprava testu:
Na lavičku se připevní měřítko tak, aby nulová hodnota měřítka byla v úrovni horní hrany lavičky.

Činnost hráče:
Výchozí polohou je mírný stoj rozkročný na lavičce za upevněným měřítkem (naboso), vzpaženo. Hráč vykonává zvolna hluboký předklon a snaží se konečky prstů dotknout měřítka co nejníže. V krajní poloze musí vydržet 2 sekundy.

Pravidla:
Nohy musí být v kolenou propnuté. Kontrolu provádí testující tím, že si sedne na lavičku vedle hráče ve stejném směru, rukou uchopí koleno hráče tak, že má palec položený na čéšce a ostatní prsty pod kolenem. Test se opakuje třikrát bezprostředně za sebou.

Hodnocení:
Hloubka předklonu v cm vzhledem k úrovni stoje – pod úrovní jsou hodnoty kladné, nad úrovní záporné. Střední prsty určují hloubku předklonu. Kritériem výkonnosti je nejlepší pokus. Zapisují se všechny tři pokusy.

Přihrávání o stěnu na čas

Materiální vybavení:
Stěna 3 m široká a 5 m vysoká, 3 míče na házenou odpovídající hmotností a rozměrem testované kategorii hráčů a hráček, stopky, židle, křída nebo páska.

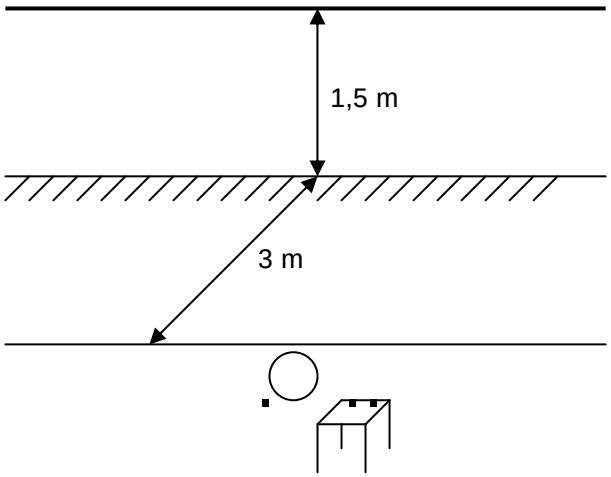
Příprava testu:
Na stěně se vyznačí křídou nebo páskou vodorovná čára ve výšce 1,5 m od země. Ve vzdálenosti 3 m od stěny rovnoběžně s ní se vyznačí na zemi čára a těsně za ni se postaví židle se dvěma míči. (Obr. 8)

Činnost hráče:
Hráč stojí za čarou čelem ke stěně a v rukou drží míč (doporučuje se pravák v levém střehu, levák v pravém). Bez povelu opakovaně hází vrchním způsobem jednoruč míč nad čáru tak, aby míč chytil obouruč vrchem. Při hodu je ve styku se zemí a nepřešlapuje čáru ani po hodech. Končí na pokyn osoby, která průběžně posuzuje jeho výkon (slovně hlásí počet správných hodů). Jestliže z jakéhokoliv důvodu hráč míč ztratí, sbírá se židle další a ihned pokračuje v házení.

Pravidla:
Test tvoří série 20 hodů provedených podle pravidel testu. Provádí se dvakrát proudovou metodou.

Hodnocení:
Čas od 1. do 20. správně provedeného úderu do stěny s přesností 0,01 sekundy. Kritériem výkonnosti v testu je lepší čas. Zapisují se výsledky obou pokusů.

Obrázek 8



C. POKYNY K TESTOVÁNÍ

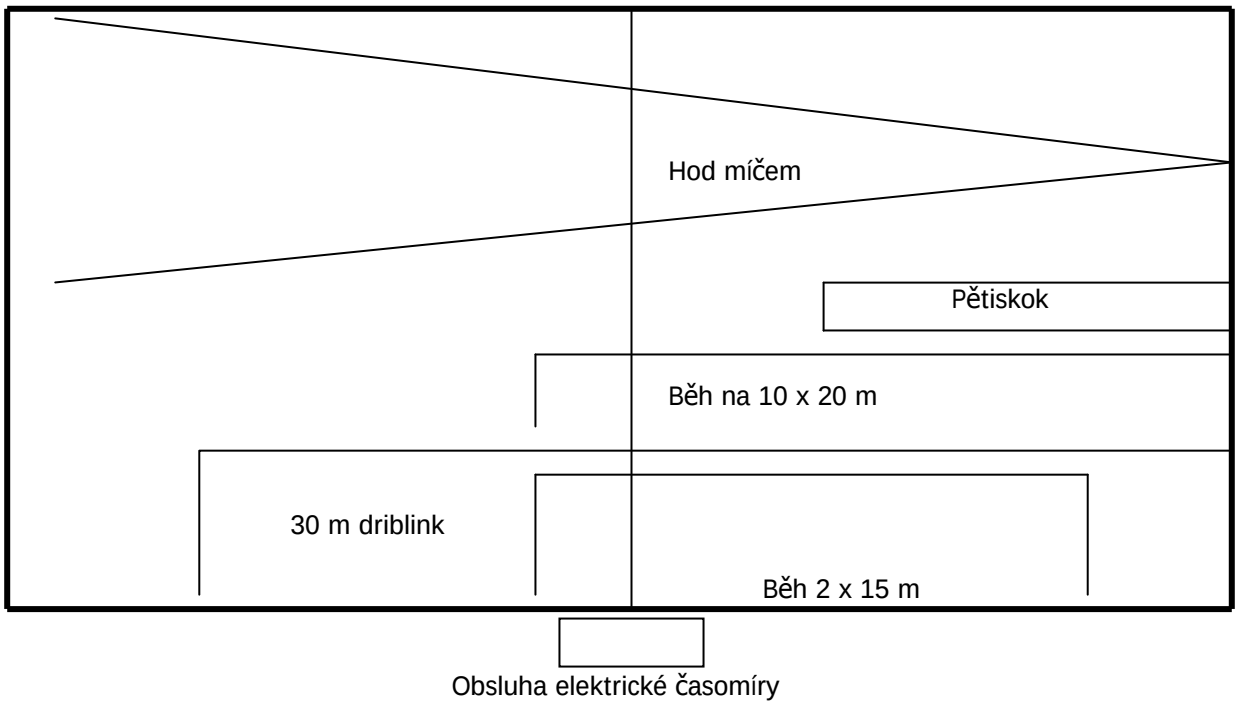
Pro zabezpečení co největší objektivity při provádění testování a pro následné vyhodnocení jednotlivých výkonů je třeba vytvořit takřka shodné „standardní“ podmínky. Proto je třeba dodržet následující pokyny:

1. Před prvním prováděním testové baterie je třeba slovně hráče dokonale seznámit s jednotlivými testy. Pro dosažení lepších výkonů se doporučuje slovní výklad doplnit i praktickou ukázkou, čímž se dosáhne toho, že hráči budou přistupovat k testování připraveni a výsledek nebude ovlivněn podstatnými nedostatky vzniklými z neznalosti.

2. Všechna družstva absolvují 6 testů v pořadí určeném Komisí talentované mládeže (běh 2x15m, 30m driblink, pětiskok, hod do dálky míčem, běh na 10x20m, dvanáctiminutový běh).

3. Závazné rozvržení testů v prostoru je uvedeno na následujícím obrázku 9.

Obrázek 9



4. Doporučené testy (hloubka předklonu a přihrávání o stěnu) je třeba provádět v jiný den (i v případě třeba jednoho z nich).

5. V den konání testování pohybové výkonnosti je nezbytné a nutné před prvním testem zajistit minimálně 15-ti minutové rozcvičení.

6. Testující klub je povinen připravit odpovídající formulář (v příloze) pro záznam výkonů se jmény hráčů, herní funkcí (HF), tělesnou výškou (TV), predikcí tělesné výšky (PTV), tělesnou hmotností (TH) a datem narození. Seniorské kategorie PTV neuvádí.

7. Hráči absolvují testování pohybové výkonnosti v pořadí uvedeném na formuláři pro záznam výkonů. V průběhu měření nelze měnit pořadí hráčů.

8. Osoby ve funkci zapisovatelů evidují výkony do formuláře pro záznam výkonů.

9. Nejlepší výkon hráče v každém testu se převádí na body podle norem. V předposledním sloupci se uvede součet bodů hráče dosažený v šesti testech. V posledním sloupci se stanoví pořadí hráče v družstvu (nejvyšší součet bodů = první hráč v družstvu, atd…).

10. Originál formuláře pro záznam výkonů odveze supervizor okamžitě po skončení testování a v nejbližším možném termínu předá na ČSH.

11. Klub je povinen vytvořit si kopii záznamu výkonů a po zpracování výsledků testování (přidělení bodů, výpočet průměrů, stanovení pořadí hráčů) dodá v nejbližším možném termínu (do 5-ti pracovních dnů) na sekretariát ČSH.

12. Výsledky testování nepodléhají jakýmkoli sankcím ze strany ČSH. Naopak neprovedení testování je povinností klubu ve smyslu rozpisu soutěží. Jejich nesplnění bude mít pro klub disciplinární následky.

13. Musí být otestováno 80% hráčů (hráček) družstva ze seznamu smluvních hráčů (hráček) pro soutěžní ročník 2009/2010.

14. V případě, že se některý z hráčů (hráček) testování nezúčastní, musí testování absolvovat v jiném termínu s hráči (hráčkami) jiného příslušného klubu. V případě zranění, či nemoci, znemožňujícího testování příslušného hráče (hráčky), doloží klub lékařské potvrzení, které odešle společně s výsledky testování na sekretariát ČSH.

15. Klub pořádá testování na své náklady v rámci vlastního tréninkového procesu v místě svého působení.

16. Termín testování si zvolí klub sám podle svých možností a potřeb v rozmezí 3 týdny – 1 den před prvním soutěžním utkáním podzimní části sezony 2009/2010. Povinností klubu je nejpozději 21 dní před uskutečněním testování sdělit místo a dobu konání testování (datum a hodinu začátku testování) na sekretariát ČSH (pan Tkadlec – email: hazena@cstv.cz). V případě, že při klubu je zřízeno SCM, musí být testování obou subjektů provedeno společně.

17. Testování se provádí ve sportovní hale a musí být provedeno podle pokynů uvedených v této směrnici.

18. Běžecké disciplíny musí být měřeny fotobuňkami. Nedodržení tohoto ustanovení se považuje za porušení pokynů a bude mít disciplinární následky. Klub je povinen zajistit fotobuňky pro měření. Fotobuňky v majetku ČSH mohou být použity za

předpokladu, že budou v uvedený termín volné a že o jejich zapůjčení klub písemným způsobem požádá na sekretariátu ČSH.

19. Funkci hlavního rozhodčího ve smyslu této směrnice vykonává pověřený pracovník ČSH (supervizor) na základě ustanovení společného rozhodnutí předsedů TMK a RK (členové TMK, RK, a sekretariátu ČSH. Podílí se na organizaci a řízení testování. Ve sporných případech rozhoduje o dalším postupu. Po ukončení testování seznámí ústně zástupce testovaného klubu s předběžným hodnocením průběhu testování. Do 60-ti dnů vypracuje závazné hodnocení průběhu testování pro potřeby ČSH, jehož kopii zašle testovanému klubu. Cestovné náklady supervizora hradí ČSH dle ekonomické směrnice.

20. Ostatní rozhodčí ve smyslu této směrnice nominuje testující klub.

21. Výsledky testování všech hráčů a hráček budou TMK zpracovány a poskytnuty zúčastněným klubům.

D. BODOVACÍ NORMY K TESTŮM POHYBOVÉ VÝKONNOSTI

Muži

Body	Běh 2 x 15 m	Driblink 30 m	Pětiskok	Hod 1 kg medicinbal	Běh 10 x 20 m	12 minutový běh	Body
0	5,68 a více	4,56 a více	11,90 a méně	27,7 a více	41,31 a více	2780 a méně	0
1	5,63–5,67	4,49–4,55	11,95-12,30	27,8-29,4	41,91-41,30	2790-2850	1
2	5,58-5,62	4,42-4,48	12,35-12,70	29,5-31,1	40,51-40,90	2860-2920	2
3	5,53-5,57	4,35-4,41	12,75-13,10	31,2-32,8	40,11-40,50	2930-2990	3
4	5,48-5,52	4,28-4,34	13,15-13,50	32,9-34,5	39,71-40,10	3000-3060	4
5	5,43-5,47	4,21-4,27	13,55-13,90	34,6-36,2	39,31-39,70	3070-3130	5
6	5,38-5,42	4,14-4,20	13,95-14,30	36,3-37,9	39,91-39,30	3140-3200	6
7	5,33-5,37	4,07-4,13	14,35-14,70	38,0-39,6	38,51-38,90	3210-3270	7
8	5,28-5,32	4,00-4,06	14,75-15,10	39,7-41,3	38,11-38,50	3280-3340	8
9	5,23-5,27	3,93-3,99	15,15-15,50	41,4-43,0	37,71-38,10	3350-3410	9
10	5,22 a méně	3,92 a méně	15,55 a více	43,1 a více	37,70 a méně	3420 a více	10

Starší dorostenci

Body	Běh 2 x 15 m	Driblink 30 m	Pětiskok	Hod 1 kg medicinbal	Běh 10 x 20 m	12 minutový běh	Body
0	5,79 a více	4,83 a více	11,70 a méně	22,4 a méně	42,65 a více	2470 a méně	0
1	5,73-5,78	4,75-4,82	11,75-12,10	22,5-23,9	42,20-42,64	2480-2550	1
2	5,67-5,72	4,67-4,74	12,15-12,50	24,0-25,4	41,75-42,19	2560-2630	2
3	5,61-5,66	4,59-4,66	12,55-12,90	25,5-26,9	41,30-41,74	2640-2710	3
4	5,55-5,60	4,51-4,58	12,95-13,30	27,0-28,4	40,85-41,29	2720-2790	4
5	5,49-5,54	4,43-4,50	13,35-13,70	28,5-29,9	40,40-40,84	2800-2870	5
6	5,43-5,48	4,35-4,42	13,75-14,10	30,0-31,4	39,95-40,39	2880-2950	6
7	5,37-5,42	4,27-4,34	14,15-14,50	31,5-32,9	39,50-39,94	2960-3030	7
8	5,31-5,36	4,19-4,26	14,55-14,90	33,0-34,4	39,05-39,49	3040-3110	8
9	5,25-5,30	4,11-4,18	14,95-15,30	34,5-35,9	38,60-39,04	3120-3190	9
10	5,24 a méně	4,10 a méně	15,35 a více	36,0 a více	38,59 a méně	3200 a více	10

Mladší dorostenci

Body	Běh 2 x 15 m	Driblink 30 m	Pětiskok	Hod 1 kg medicinbal	Běh 10 x 20 m	12 minutový běh	Body
0	5,98 a více	4,92 a více	11,15 a méně	21,0 a méně	44,65 a více	2330 a méně	0
1	5,91-5,97	4,84-4,91	11,20-11,55	21,1-22,6	44,05-44,64	2340-2420	1
2	5,84-5,90	4,76-4,83	11,60-11,95	22,7-24,2	43,45-44,04	2430-2510	2
3	5,77-5,83	4,68-4,75	12,00-12,35	24,3-25,8	42,85-43,44	2520-2600	3
4	5,70-5,76	4,60-4,67	12,40-12,75	25,9-27,4	42,25-42,84	2610-2690	4
5	5,63-5,69	4,52-4,59	12,80-13,15	27,5-29,0	41,65-42,24	2700-2780	5
6	5,56-5,62	4,44-4,51	13,20-13,55	29,1-30,6	41,05-41,64	2790-2870	6
7	5,49-5,55	4,36-4,43	13,60-13,95	30,7-32,2	40,45-41,04	2880-2960	7
8	5,42-5,48	4,28-4,35	14,00-14,35	32,3-33,8	39,85-40,44	2970-3050	8
9	5,35-5,41	4,20-4,27	14,40-14,75	33,9-35,4	39,25-39,84	3060-3140	9
10	5,34 a méně	4,19 a méně	14,80 a více	35,5 a více	39,24 a méně	3150 a více	10

Žactvo – chlapci 9. třída (druhým rokem starší žák)

Body	Běh 2 x 15 m	Driblink 30 m	Pětiskok	Hod míčem	Běh 10 x 20 m	12 minutový běh	Body
0	6,49 a více	5,70 a více	8,40 a méně	19,5 a méně	51,01 a více	1990 a méně	0
1	6,37-6,48	5,55-5,69	8,45-9,00	19,6-22,1	49,71-51,00	2000-2110	1
2	6,25-6,36	5,40-5,54	9,05-9,60	22,2-24,7	48,41-49,70	2120-2230	2
3	6,13-6,24	5,25-5,39	9,65-10,20	24,8-27,3	47,11-48,40	2240-2350	3
4	6,01-6,12	5,10-5,24	10,25-10,80	27,4-29,9	45,81-47,10	2360-2470	4
5	5,89-6,00	4,95-5,09	10,85-11,40	30,0-32,5	44,51-45,80	2480-2590	5
6	5,77-5,88	4,80-4,94	11,45-12,00	32,6-35,1	43,21-44,50	2600-2710	6
7	5,65-5,76	4,65-4,79	12,05-12,60	35,2-37,7	41,91-43,20	2720-2830	7
8	5,53-5,64	4,50-4,64	12,65-13,20	37,8-40,3	40,61-41,90	2840-2950	8
9	5,41-5,52	4,35-4,49	13,25-13,80	40,4-42,9	39,31-40,60	2960-3070	9
10	5,40 a méně	4,34 a méně	13,85 a více	43,0 a více	39,30 a méně	3080 a více	10

Žactvo – chlapci 8. třída (prvním rokem starší žák)

Body	Běh 2 x 15 m	Driblink 30 m	Pětiskok	Hod míčem	Běh 10 x 20 m	12 minutový běh	Body
0	6,87 a více	6,09 a více	7,55 a méně	16,9 a méně	53,81 a více	1850 a méně	0
1	6,71-6,86	5,91-6,08	7,60-8,15	17,0-19,3	52,31-53,80	1860-1980	1
2	6,55-6,70	5,73-5,90	8,20-8,75	19,4-21,7	50,81-52,30	1990-2110	2
3	6,39-6,54	5,55-5,72	8,80-9,35	21,8-24,1	49,31-50,80	2120-2240	3
4	6,23-6,38	5,37-5,54	9,40-9,95	24,2-26,5	47,81-49,30	2250-2370	4
5	6,07-6,22	5,19-5,36	10,00-10,55	26,6-28,9	46,31-47,80	2380-2500	5
6	5,91-6,06	5,01-5,18	10,60-11,15	29,0-31,3	44,81-46,30	2510-2630	6
7	5,75-5,90	4,83-5,00	11,20-11,75	31,4-33,7	43,31-44,80	2640-2760	7
8	5,59-5,74	4,65-4,82	11,80-12,35	33,8-36,1	41,81-43,30	2770-2890	8
9	5,43-5,58	4,47-4,64	12,40-12,95	36,2-38,5	40,31-41,80	2900-3020	9
10	5,42 a méně	4,46 a méně	13,00 a více	38,6 a více	40,30 a méně	3030 a více	10

Žactvo – chlapci 7. třída (druhým rokem mladší žák)

Body	Běh 2 x 15 m	Driblink 30 m	Pětiskok	Hod míčem	Běh 10 x 20 m	12 minutový běh	Body
0	7,16 a více	6,35 a více	7,10 a méně	15,4 a méně	56,56 a více	1740 a méně	0
1	7,00-7,15	6,17-6,34	7,15-7,60	15,5-17,4	54,96-56,55	1750-1870	1
2	6,84-6,99	5,99-6,16	7,65-8,10	17,5-19,4	53,36-54,95	1880-2000	2
3	6,68-6,83	5,81-5,98	8,15-8,60	19,5-21,4	51,76-53,35	2010-2130	3
4	6,52-6,67	5,63-5,80	8,65-9,10	21,5-23,4	50,16-51,75	2140-2260	4
5	6,36-6,51	5,45-5,62	9,15-9,60	23,5-25,4	48,56-50,15	2270-2390	5
6	6,20-6,35	5,27-5,44	9,65-10,10	25,5-27,4	46,96-48,55	2400-2520	6
7	6,04-6,19	5,09-5,26	10,15-10,60	27,5-29,4	45,36-46,95	2530-2650	7
8	5,88-6,03	4,91-5,08	10,65-11,10	29,5-31,4	43,76-45,35	2660-2780	8
9	5,72-5,87	4,73-4,90	11,15-11,60	31,5-33,4	42,16-43,75	2790-2910	9
10	5,71 a méně	4,72 a méně	11,65 a více	33,5 a více	42,15 a méně	2920 a více	10

Žactvo – chlapci 6. třída (prvním rokem mladší žák)

Body	Běh 2 x 15 m	Driblink 30 m	Pětiskok	Hod míčem	Běh 10 x 20 m	12 minutový běh	Body
0	7,35 a více	6,67 a více	6,45 a méně	12,9 a méně	58,01 a více	1640 a méně	0
1	7,18-7,34	6,47-6,66	6,50-6,95	13,0-14,9	56,41-58,00	1650-1780	1
2	7,01-7,17	6,27-6,46	7,00-7,45	15,0-16,9	54,81-56,40	1790-1920	2
3	6,84-7,00	6,07-6,26	7,50-7,95	17,0-18,9	53,21-54,80	1930-2060	3
4	6,67-6,83	5,87-6,06	8,00-8,45	19,0-20,9	51,61-53,20	2070-2200	4
5	6,50-6,66	5,67-5,86	8,50-8,95	21,0-22,9	50,01-51,60	2210-2340	5
6	6,33-6,49	5,47-5,66	9,00-9,45	23,0-24,9	48,41-50,00	2350-2480	6
7	6,16-6,32	5,27-5,46	9,50-9,95	25,0-26,9	46,81-48,40	2490-2620	7
8	5,99-6,15	5,07-5,26	10,00-10,45	27,0-28,9	45,21-46,80	2630-2760	8
9	5,82-5,98	4,87-5,06	10,50-10,95	29,0-30,9	43,61-45,20	2770-2900	9
10	5,81 a méně	4,86 a méně	11,00 a více	31,0 a více	43,60 a méně	2910 a více	10

Ženy

Body	Běh 2 x 15 m	Driblink 30 m	Pětiskok	Hod míčem	Běh 10 x 20 m	12 minutový běh	Body
0	6,34 a více	5,34 a více	9,85 a méně	28,4 a méně	46,36 a více	2420 a méně	0
1	6,26-6,33	5,22-5,33	9,90-10,15	28,5-29,8	45,81-46,35	2430-2480	1
2	6,18-6,25	5,11-5,21	10,20-10,45	29,9-31,2	45,26-45,80	2490-2540	2
3	6,10-6,17	4,99-5,10	10,50-10,75	31,3-32,6	44,71-45,25	2550-2600	3
4	6,02-6,09	4,88-4,98	10,80-11,05	32,7-34,0	44,16-44,70	2610-2660	4
5	5,94-6,01	4,77-4,87	11,10-11,35	34,1-35,4	43,61-44,15	2670-2720	5
6	5,86-5,93	4,65-4,76	11,40-11,65	35,5-36,8	43,06-43,60	2730-2780	6
7	5,78-5,85	4,54-4,64	11,70-11,95	36,9-38,2	42,51-43,05	2790-2840	7
8	5,70-5,77	4,42-4,53	12,00-12,25	38,3-39,6	41,96-42,50	2850-2900	8
9	5,62-5,69	4,31-4,41	12,30-12,55	39,7-41,0	41,41-41,95	2910-2960	9
10	5,61 a méně	4,30 a méně	12,60 a více	41,1 a více	41,40 a méně	2970 a více	10

Starší dorostenky

Body	Běh 2 x 15 m	Driblink 30 m	Pětiskok	Hod míčem	Běh 10 x 20 m	12 minutový běh	Body
0	6,48 a více	5,46 a více	9,25 a méně	24,6 a méně	48,45 a více	2330 a méně	0
1	6,39-6,47	5,36-5,45	9,30-9,60	24,7-26,2	47,85-48,44	2340-2390	1
2	6,30-6,38	5,26-5,35	9,65-9,95	26,3-27,8	47,25-47,84	2400-2450	2
3	6,21-6,29	5,16-5,25	10,00-10,30	27,9-29,4	46,65-47,24	2460-2510	3
4	6,12-6,20	5,06-5,15	10,35-10,65	29,5-31,0	46,05-46,64	2520-2570	4
5	6,03-6,11	4,96-5,05	10,70-11,00	31,1-32,6	45,45-46,04	2580-2630	5
6	5,94-6,02	4,86-4,95	11,05-11,35	32,7-34,2	44,85-45,44	2640-2690	6
7	5,85-5,93	4,76-4,85	11,40-11,70	34,3-35,8	44,25-44,84	2700-2750	7
8	5,76-5,84	4,66-4,75	11,75-12,05	35,9-37,4	43,65-44,24	2760-2810	8
9	5,67-5,75	4,56-4,65	12,10-12,40	37,5-39,0	43,05-43,64	2820-2870	9
10	5,66 a méně	4,55 a méně	12,45 a více	39,1 a více	43,04 a méně	2880 a více	10

Mladší dorostenky

Body	Běh 2 x 15 m	Driblink 30 m	Pětiskok	Hod míčem	Běh 10 x 20 m	12 minutový běh	Body
0	6,60 a více	5,50 a více	9,05 a méně	23,0 a méně	49,15 a více	2210 a méně	0
1	6,50-6,59	5,40-5,49	9,10-9,40	23,1-24,6	48,45-49,14	2220-2280	1
2	6,40-6,49	5,30-5,39	9,45-9,75	24,7-26,2	47,75-48,44	2290-2350	2
3	6,30-6,39	5,20-5,29	9,80-10,10	26,3-27,8	47,05-47,74	2360-2420	3
4	6,20-6,29	5,10-5,19	10,15-10,45	27,9-29,4	46,35-47,04	2430-2490	4
5	6,10-6,19	5,00-5,09	10,50-10,80	29,5-31,0	45,65-46,34	2500-2560	5
6	6,00-6,09	4,90-4,99	10,85-11,15	31,1-32,6	44,95-45,64	2570-2630	6
7	5,90-5,99	4,80-4,89	11,20-11,50	32,7-34,2	44,25-44,94	2640-2700	7
8	5,80-5,89	4,70-4,79	11,55-11,85	34,3-35,8	43,55-44,24	2710-2770	8
9	5,70-5,79	4,60-4,69	11,90-12,20	35,9-37,4	42,85-43,54	2780-2840	9
10	5,69 a méně	4,59 a méně	12,25 a více	37,5 a více	42,84 a méně	2850 a více	10

Žactvo – dívky 9. třída **(druhým rokem starší žákyně)**

Body	Běh 2 x 15 m	Driblink 30 m	Pětiskok	Hod míčem	Běh 10 x 20 m	12 minutový běh	Body
0	7,08 a více	6,09 a více	7,90 a méně	17,8 a méně	53,91 a více	1900 a méně	0
1	6,93-7,07	5,93-6,08	7,95-8,30	17,9-19,5	52,71-53,90	1910-2000	1
2	6,78-7,92	5,77-5,92	8,35-8,70	19,6-21,2	51,51-52,70	2010-2100	2
3	6,63-6,77	5,61-5,76	8,75-9,10	21,3-22,9	50,31-51,50	2110-2200	3
4	6,48-6,62	5,45-5,60	9,15-9,50	23,0-24,6	49,11-50,30	2210-2300	4
5	6,33-6,47	5,29-5,44	9,55-9,90	24,7-26,3	47,91-49,10	2310-2400	5
6	6,18-6,32	5,13-5,28	9,95-10,30	26,4-28,0	46,71-47,90	2410-2500	6
7	6,03-6,17	4,97-5,12	10,35-10,70	28,1-29,7	45,51-46,70	2510-2600	7
8	5,88-6,02	4,81-4,96	10,75-11,10	29,8-31,4	44,31-45,50	2610-2700	8
9	5,73-5,87	4,65-4,80	11,15-11,50	31,5-33,1	43,11-44,30	2710-2800	9
10	5,72 a méně	4,64 a méně	11,55 a více	33,2 a více	43,10 a méně	2810 a více	10

Žactvo – dívky 8. třída (prvním rokem starší žákyně)

Body	Běh 2 x 15 m	Driblink 30 m	Pětiskok	Hod míčem	Běh 10 x 20 m	12 minutový běh	Body
0	7,23 a více	6,35 a více	7,50 a méně	15,6 a méně	54,66 a více	1860 a méně	0
1	7,08-7,22	6,17-6,34	7,55-7,90	15,7-17,3	53,46-54,65	1870-1960	1
2	6,93-7,07	5,99-6,16	7,95-8,30	17,4-19,0	52,26-53,45	1970-2060	2
3	6,78-6,92	5,81-5,98	8,35-8,70	19,1-20,7	51,06-52,25	2070-2160	3
4	6,63-6,77	5,63-5,80	8,75-9,10	20,8-22,4	49,86-51,05	2170-2260	4
5	6,48-6,62	5,45-5,62	9,15-9,50	22,5-24,1	48,66-49,85	2270-2360	5
6	6,33-6,47	5,27-5,44	9,55-9,90	24,2-25,8	47,46-48,65	2370-2460	6
7	6,18-6,32	5,09-5,26	9,95-10,30	25,9-27,5	46,26-47,45	2470-2560	7
8	6,03-6,17	4,91-5,08	10,35-10,70	27,6-29,2	45,06-46,25	2570-2660	8
9	5,88-6,02	4,73-4,90	10,75-11,10	29,3-30,9	43,86-45,05	2670-2760	9
10	5,87 a méně	4,72 a méně	11,15 a více	31,0 a více	43,85 a méně	2770 a více	10

Žactvo – dívky 7. třída (druhým rokem mladší žákyně)

Body	Běh 2 x 15 m	Driblink 30 m	Pětiskok	Hod míčem	Běh 10 x 20 m	12 minutový běh	Body
0	7,57 a více	6,63 a více	6,85 a méně	12,8 a méně	56,51 a více	1740 a méně	0
1	7,39-7,56	6,43-6,62	6,90-7,30	12,9-14,4	55,21-56,50	1750-1850	1
2	7,21-7,38	6,23-6,42	7,35-7,75	14,5-16,0	53,91-55,20	1860-1960	2
3	7,03-7,20	6,03-6,22	7,80-8,20	16,1-17,6	52,61-53,90	1970-2070	3
4	6,85-7,02	5,83-6,02	8,25-8,65	17,7-19,2	51,31-52,60	2080-2180	4
5	6,67-6,84	5,63-5,82	8,70-9,10	19,3-20,8	50,01-51,30	2190-2290	5
6	6,49-6,66	5,43-5,62	9,15-9,55	20,9-22,4	48,71-50,00	2300-2400	6
7	6,31-6,48	5,23-5,42	9,60-10,00	22,5-24,0	47,41-48,70	2410-2510	7
8	6,13-6,30	5,03-5,22	10,05-10,45	24,1-25,6	46,11-47,40	2520-2620	8
9	5,95-6,12	4,83-5,02	10,50-10,90	25,7-27,2	44,81-46,10	2630-2730	9
10	5,94 a méně	4,82 a méně	10,95 a více	27,3 a více	44,80 a méně	2740 a více	10

Žactvo – dívky 6. třída (prvním rokem mladší žákyně)

Body	Běh 2 x 15 m	Driblink 30 m	Pětiskok	Hod míčem	Běh 10 x 20 m	12 minutový běh	Body
0	7,58 a více	6,73 a více	6,60 a méně	11,6 a méně	57,11 a více	1730 a méně	0
1	7,43-7,57	6,55-6,72	6,65-6,95	11,7-13,1	56,01-57,10	1740-1830	1
2	7,28-7,42	6,37-6,54	7,00-7,30	13,2-14,6	54,91-56,00	1840-1930	2
3	7,13-7,27	6,19-6,36	7,35-7,65	14,7-16,1	53,81-54,90	1940-2030	3
4	6,98-7,12	6,01-6,18	7,70-8,00	16,2-17,6	52,71-53,80	2040-2130	4
5	6,83-6,97	5,83-6,00	8,05-8,35	17,7-19,1	51,61-52,70	2140-2230	5
6	6,68-6,82	5,65-5,82	8,40-8,70	19,2-20,6	50,51-51,60	2240-2330	6
7	6,53-6,67	5,47-5,64	8,75-9,05	20,7-22,1	49,41-50,50	2340-2430	7
8	6,38-6,52	5,29-5,46	9,10-9,40	22,2-23,6	48,31-49,40	2440-2530	8
9	6,23-6,37	5,11-5,28	9,45-9,75	23,7-25,1	47,21-48,30	2540-2630	9
10	6,22 a méně	5,10 a méně	9,80 a více	25,2 a více	47,20 a méně	2640 a více	10

E. BODOVACÍ NORMY K DOPORUČENÝM TESTŮM

Starší dorostenci			Mladší dorostenci		Starší dorostenky			Mladší dorostenky		
body	Předklon	Přihrávání	Předklon	Přihrávání	body	Předklon	Přihrávání	Předklon	Přihrávání	body
0	5 a méně	20,20 a více	4 a méně	21,30 a více	0	9 a méně	21,50 a více	8 a méně	22,50 a více	0
1	6 – 7	19,70-20,19	5 – 6	20,80-21,29	1	10 – 11	21,00-21,49	9 – 10	21,90-22,49	1
2	8 – 9	19,30-19,69	7 – 8	20,30-20,79	2	12	20,50-20,99	11	21,30-21,89	2
3	10 – 11	18,80-19,29	9 – 10	19,80-20,29	3	13 – 14	20,00-20,49	12 – 13	20,70-21,29	3
4	12 – 13	18,40-18,79	11 – 12	19,30-19,79	4	15	19,50-19,99	14	20,10-20,69	4
5	14 – 15	17,90-18,39	13 – 14	18,80-19,29	5	16 – 17	19,00-19,49	15 – 16	19,50-20,09	5
6	16 – 17	17,50-17,89	15 – 16	18,30-18,79	6	18	18,50-18,99	17	18,90-19,49	6
7	18 – 19	17,00-17,49	17 – 18	17,80-18,29	7	19 – 20	18,00-18,49	18 – 19	18,30-18,89	7
8	20 – 21	16,60-16,99	19 – 20	17,30-17,79	8	21	17,50-17,99	20	17,70-18,29	8
9	22 – 23	16,10-16,59	21 – 22	16,80-17,29	9	22 – 23	17,00-17,49	21 – 22	17,10-17,69	9
10	24 a více	16,09 a méně	23 a více	16,79 a méně	10	24 a více	16,99 a méně	23 a více	17,09 a méně	10

žactvo – chlapci						žactvo – děvčata				
starší žáci 8. a 9. třída			mladší žáci 6. a 7. třída			starší žákyně 8. a 9. třída			mladší žákyně 6. a 7. třída	
body	Předklon	Přihrávání	Předklon	Přihrávání	body	Předklon	Přihrávání	Předklon	Přihrávání	body
0	2 a méně	23,70 a více	2 a méně	25,30 a více	0	4 a méně	24,20 a více	6 a méně	26,00 a více	0
1	3 – 4	23,00-23,69	3 – 4	24,60-25,29	1	5 – 6	23,50-24,19	7	25,30-25,99	1
2	5 – 6	22,30-22,99	5	23,90-24,59	2	7 – 8	22,80-23,49	8 – 9	24,60-25,29	2
3	7 – 8	21,60-22,29	6 – 7	23,20-23,89	3	9 – 10	22,10-22,79	10	23,90-24,59	3
4	9 – 10	20,90-21,59	8	22,50-23,19	4	11 – 12	24,40-22,09	11 – 12	23,20-23,89	4
5	11 – 12	20,20-20,89	9 – 10	21,80-22,49	5	13 – 14	20,70-21,39	13	22,50-23,19	5
6	13 – 14	19,50-20,19	11	21,10-21,79	6	15 – 16	20,00-20,69	14 – 15	21,80-22,49	6
7	15 – 16	18,80-19,49	12 – 13	20,40-21,09	7	17 – 18	19,30-19,99	16	21,10-21,79	7
8	17 – 18	18,10-18,79	14	19,70-20,39	8	19 – 20	18,60-19,29	17 – 18	20,40-21,09	8
9	19 – 20	17,40-18,09	15 – 16	19,00-19,69	9	21 – 22	17,90-18,59	19	19,70-20,39	9
10	21 a více	17,39 a méně	17 a více	18,99 a méně	10	23 a více	17,89 a méně	20 a více	19,69 a méně	10

E. POKYNY PRO POŘADATELE TESTOVÁNÍ

Materiální vybavení.

Povinností pořadatele je zajistit následující vybavení:

- hřiště na házenou
- elektrickou časomíru (fotobuňku) s možností měřit současně dva hráče, příslušenství (stativy, propojovací kabely, baterie, ...)
- 2 pásma, jedno pásmo nejméně 25 m dlouhé, druhé 20 m dlouhé,
- lepící pásku, křídu
- šest kuželů,
- nejméně 3 míče na házenou odpovídající rozměrem a hmotností testované kategorii hráčů a hráček,
- 3 míče 1 kg těžké (medicinbaly),
- dvoje stopky,
- záznamní archy pro testování jednotlivých družstev,
- pomocné záznamní archy pro záznam naběhaných kol (při jednom měření se na jeden arch zapisuje výkon 3 (4) hráčů, hráček.

Rozhodčí:
Pro testování ČSH nominuje **1 hlavního rozhodčího** a pořadatel zabezpečí pro každý test **1 vrchního rozhodčího.** Pořadatel je povinen zajistit **1-2 pomocné rozhodčí** a **zapisovatele**.

Hlavní rozhodčí zodpovídá za hladký průběh celého testování a řeší případné problémy, tj.:

- zkontroluje, zda všichni vrchní rozhodčí řádně připravili jednotlivé testy a elektrická časomíra je funkční,
- během testování prochází jednotlivá stanoviště a kontroluje průběh, namátkou správnost posuzování pravidel testu rozhodčími, správnost zápisů do formulářů pro záznam výkonů, chování hráčů a hráček a zodpovídá případné dotazy,
- na závěr provede stručné zhodnocení:

a) průběhu testovaní (organizace, časový sled, činnost rozhodčích, ...)
b) přístupu hráčů, hráček a trenérů družstev.

Vrchní rozhodčí u testu:

- zodpovídá za správnou přípravu a průběh testu,
- instruuje pomocné rozhodčí a zapisovatele, zodpoví případné dotazy trenéra či hráče před prováděním testu, případně i při něm (nesděluje bodové ohodnocení výkonů),
- určuje prostor, v němž bude družstvo během provádění testu shromážděno, aby nenarušovalo průběh měření,
- s konečnou platností rozhoduje o uznání či anulování výkonu hráče (při porušení pravidel).

Vzhledem ke specifickým povinnostem vrchního rozhodčího (dále jen VR) a pomocného rozhodčího (dále jen PR) jsou u každého testu rozepsány podobnější informace.

2 x 15 m

u testu je přítomen jeden VR, jeden PR, jeden zapisovatel (dále jen Z) a technik obsluhující elektrickou časomíru.

- ✓ VR – na začátku zopakuje pravidla testu, posuzuje starty hráčů, uznává pokusy (případně povolí pokus náhradní např. při selhání časomíry), oznamuje výkon s přesností na 0,01 sekundy.
- ✓ PR – kontroluje, zda hráči vyráží opačným směrem až po dotyku nebo překročení vyznačené čáry jednou nohou. Nedošlap okamžitě hlásí VR slovně a zvednutím paže.
- ✓ Z – sedí vedle technika (případně VR), zapisuje výkony do formuláře pro záznam výkonů.
- ✓ Technik – ručí za správnou instalaci a funkčnost elektrické časomíry, případně co nejrychleji odstraní poruchy.

30 m driblink

u testu jsou přítomny tytéž osoby, které byly u testu 2 x 15 m běh

- ✓ VR – na začátku zopakuje pravidla testu, dohlíží, aby hráči driblovali pouze 3 určenými míči, posuzuje výšku driblinku a zakončení testu chycením míče.

Uznává pokusy, případně povolí pokus náhradní (selhání časomíry). Při měření stopkami startuje hráče. Dohlíží, aby se míče ke startu vracely kutálením, nikoli házením.

- ✓ PR – kontroluje postavení hráče za pomocnou čarou (hráče hned upozorní, aby ještě před startem postavení upravil) a aby vypustili míč z ruky současně s prvým krokem do prostoru 1. úderu míče. Nedodržení některého pravidla okamžitě hlásí VR slovně a zvednutím paže.
- ✓ Z – viz test 2 x 15 m běh.
- ✓ Technik – viz test 2 x 15 m běh.

Pětiskok

u testu jsou přítomni jeden VR, jeden PR a jeden Z

- ✓ VR – ručí, že pásmo je správně položené. Na začátku hráčům zopakuje pravidla testu, sleduje průběh skoku a poslední místo dopadu hráče. Určuje délku pětiskoku.
- ✓ PR – kontroluje postavení hráče za čarou (hráče ještě před prvním odrazem upozorní, aby postavení upravil). Přešlap čáry při pokusu okamžitě hlásí VR slovně a zvednutím paže.
- ✓ Z – stojí (sedí) v blízkosti VR, zapisuje výkony s přesností 5 cm, při neplatném pokusu zapisuje pomlčku.

Hod míčem do dálky z místa

u testu jsou přítomni jeden VR, jeden PR a jeden Z

- ✓ VR – ručí, že pásmo je správně položené a v jeho blízkosti, zkontroluje vyznačení výseče 6 kužely. Před začátkem testování zkontroluje regulérnost míčů a hráčům zopakuje pravidla testu. Dohlíží, aby hráči házeli pouze určenými míči, uznává pokusy a určuje délku jednotlivých hodů. Dohlíží, aby se míče k odhodové čáře vracely kutálením.
- ✓ PR – kontroluje postavení hráče za odhodovou čarou (při přešlapu pouze před prvním hodem hráče upozorní, aby postavení upravil). Přešlap čáry před odhodem, případně výskok při pokusu okamžitě hlásí VR slovně a zvednutím paže.
- ✓ Z – stojí (sedí) v blízkosti VR, zapisuje výkony s přesností 10 cm, při neplatném pokusu zapisuje pomlčku.

Běh na 10 x 20 m

u testu jsou přítomni jeden VR, tři PR a jeden Z a technik (jedná se o tytéž osoby, které byly u testu s časomírou + 2 další osoby – v případě, že už skončilo měření pětiskoku, lze využít rozhodčí tohoto testu).

- ✓ VR – na začátku zopakuje pravidla testu a zkontroluje připravenost svých pomocníků (především určí, který pomocník bude sledovat došlapy kterého hráče). Startuje dvojice hráčů, hlásí počet uběhnutých úseků (2, 4, 6, 8) a zároveň sleduje došlapy bližšího hráče na středové čáře. Po skončení rozhoduje o platnosti výkonů obou hráčů, výjimečně povolí start druhý (při poruše elektrické časomíry).
- ✓ Dva PR – u brankové čáry kontrolují došlapy vždy jednoho z dvojice běžců, třetí PR kontroluje totéž u středové čáry u hráče vzdálenějšího od VR. Každý nedošlap příslušný PR okamžitě hlásí zvednutím paže. Po skončení měření porušení pravidla ohlásí VR.
- ✓ Z – sedí vedle technika, zapisuje výkony s přesností 0,01 sekundy, při neplatném pokusu uvádí pomlčku.

- ✓ Technik – viz test 2 x 15 m běh.

Dvanáctiminutový běh

u testu jsou přítomni jeden VR, dva PR, 4 – 5 Z.

- ✓ VR – na začátku zkontroluje postavení kuželů vymezujících dráhu, zopakuje pravidla testu. Měří čas (doporučují se dvoje stopky – případně ještě oficiální časomíra na světelné tabuli). Startuje hráče (skupiny maximálně po 16 hráčích). V 11. minutě a v 11. minutě a 30 sekundě hlásí běžcům jedna minuta, půl minuty do konce. Hvizdem na píšťalku (nebo klakson) ukončí test. Po doběhu stanoví uběhnuté metry v posledním započatém kole a spolu se zapisovateli určí u každého hráče celkový počet uběhnutých metrů v testu.
- ✓ Dva PR – vždy na jedné straně hřiště kontrolují postavení kuželů (v případě jejich posunutí mimo vyznačené místo je vrátí zpět)
- ✓ Z – zapisují uběhnutá kola maximálně u 3 – 4 hráčů. Po skončení měření dopíší na základě informace od VR počet metrů v nedokončeném kole.

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