Implementing a Program at National Level to Prevent Sports Injuries in Adolescents

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Injuries in Physical or Sportive Activity

• 7,000 fatal sport injuries in European Union (EU27)
• 600,000 hospital admissions in EU27
• 5,200,000 hospital outpatients in EU27
• Risk of injury among athletes is up to 1000-times higher compared to that in an average occupational setting.

Majority of these could be prevented!
Injuries in Physical or Sportive Activity

- 25% of the sport injuries affect young people in the age of 15 to 24 years in EU27.
- More men (67%) are injured than women.
- ’Team ball sports’ account for about 40% of all hospital treated sports injuries in EU27
- Ranking order in EU27: soccer (74%), basketball (8%), volleyball (7%), handball (3%)
- Majority occur in non-organized sports.
Sports and Exercise Safety in Finland (LiVE)
Steps in Sports Injury Prevention

**RESEARCH**
- Epidemiological monitoring, IDB
- Risk factors and injury mechanisms
- RCTs

**UTILIZING RESULTS**
- Understanding, Knowledge
- Networking, Social media
- Good clinical practice, Preventive training methods
- Materials, Products
- Campaigns, Interventions

**GUIDELINES**
- Number of injuries

**IMPLEMENTATION**

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Means of Injury Prevention

- Changes in rules and legislation
- Changes in environment and equipment
- Changes in behaviour (voluntary, e.g. training)
A Systematic Literature Review and Meta-analysis of Randomized Controlled Trials

- Sports injury prevention method, which effectiveness has been most clearly shown by RCTs, include specific neuromuscular training (NMT).

- The effective training improves the motor skills and movement control of adolescents and makes loading of their joints and ligaments safer.

- Neuromuscular training programs can be implemented as a part of a warm-up without additional equipment, and have positive effects for not only to reduce injuries but also to improve sports performance.

Injury Preventing Warm-up Program

• Warm-up sessions are carried out just before practices with low-to-moderate intensity.

• The program should include different types of exercises:
  1) Running technique exercises 5–7 min
  2) Balance and body control exercises 5–7 min
  3) Plyometric exercises 5–7 min
  4) Strengthening exercises 5–7 min

• The exercises should have different variations with diverse difficulty and intensity.

• One warm-up session takes 20–30 minutes.

Sports and Exercise Safety in Finland Programme 2006–2016

Funding

- Ministry of Social Affairs and Health
- Ministry of Education and Culture
- Federation of Finnish Insurance Companies
3 Nationwide Safety Implementation Programmes

- **HEALTHY ATHLETE**
  - 13+ YEAR-OLDS
  - 2006–

- **SAFETY IN SCHOOL SPORTS**
  - 10–15-YEAR-OLDS
  - 2010–

- **SAFETY IN VOCATIONAL SCHOOLS**
  - 16–19-YEAR-OLDS
  - 2014–
Frameworks of the Programmes

HEALTHY ATHLETE
Ten-point circle provides information and know-how on smart, healthy and safe sports and exercise.

SAFETY IN SCHOOL SPORTS
The Element-wall is a framework for the Implementation programme.

SAFETY IN VOCATIONAL SCHOOLS
The Element-wall is a framework for the implementation program.

Dimensions: physical – psychic – social
Healthy Athlete

Aims

• to foster coaching and training which
  ▪ supports physical, psychic and social growth of the adolescents
  ▪ develops motor skills widely
  ▪ promotes health and wellbeing & prevents injuries

• to implement information and know-how to daily practises in sports clubs

Main target group

• coaches and instructors
  ➢ young athletes (13+ years) and their families

❖ Healthy Athlete tutors
❖ Sport nutrition professionals’ network
Wide Range of Activities and Materials
Mobile Applications

*Terve Urheilija* (Healthy Athlete) Mobile Application

- Videos and training programs on assessment and improvement of movement control
- Videos available also at [program websites](#) and in YouTube on *Terve Urheilija channel*

(Developer: Sport Connect)
Safety in School Sports (TEKO)

Aim
• to promote sport safety in school settings.

Main target group
• PE and health education teachers

Large network with national co-operators; Schools on the Move -program, universities, teacher and sport federations
Wide Range of Activities and Material Videos

Large range of videos to support learning:
• sitting: disadvantages and ways to reduce sitting and sedentary time
• PA: importance and ways to add physical activity
• sport safety: aspects of safety, warm-up and first aid of sports injuries
• nutrition: meal frequency and healthy snacks for adolescents

Animated video on sports safety
Playlist in YouTube
Smart Moves

Aim
• increasing healthy and safe PA
• reducing sedentary behaviour
• preventing sports and free time accidents and injuries

Main Target Group
• PE and health education teachers in vocation schools
  ➢ young adults studying in vocational schools

❖ Students of different professions are involved strongly in the program implementation.
Wide Range of Activities and Material

Mobile Games

Freely available for Android smart phones

- SpineBlast Inc: ergonomics
- Safety Santa: sports injury prevention

Other game themes:
PA, sitting breaks, nutrition, sleep and work ability

(Developer: Peto)
Programmes in Web and Social Media

Web page visits
year 2015
- 198 000
- 121 000
- 13 000

YouTube
- videos 180
- views 380 000

Facebook followers
- 2 000
- 500
- 180

Twitter followers
- 500
- 150

Newsletter subscribers
- 1 400
- 1 700
- 300

Population 5.5 M
• The reach of the target groups has been promising (web and social media).

• The contents of free electric material has received good feedback from the target groups (target group inquiries).

• Continuous updating of the material on the basis of scientific evidence is needed.

• Continuous development of the implementing (digitalization) and teaching methods is needed.
Accidents Don’t ”Happen” – Know the Dangers and Control Them!