



PÉCSI TUDOMÁNYEGYETEM
ÁLTALÁNOS ORVOSTUDOMÁNYI KAR

Personalized risk assessment, primary, secondary and tertiary prevention

Petra Mayer
Physiotherapist
University of Pécs, Faculty of Medicine
Sport Medicine Department

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Concept

- Prevention report/ What does the word prevention mean?
- A set of efforts to improve and maintain health and to restore health as soon as possible in the event of damage, and to prevent further damages.



PREVENTION

Personalized risk assessment, primary, secondary and tertiary prevention

Levels of prevention

- primary
- secondary
- tertiary



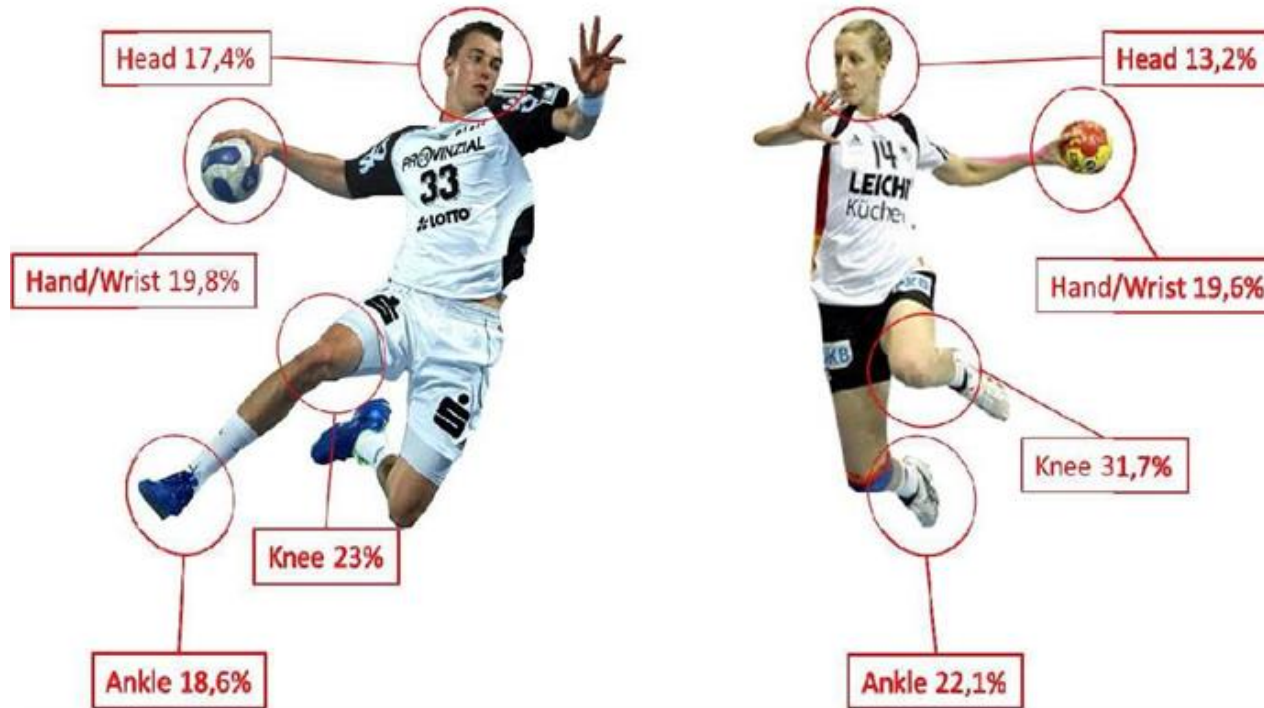
Personalized risk assessment, primary, secondary and tertiary prevention

Development of sports injuries

- **External factors** (location, geographical environment, climate and weather conditions, sportswear and sports equipment, and sports partners)
- **Internal factors** (age, gender, fatigue, unstable mental state, lack of warm up, diseases, injuries)

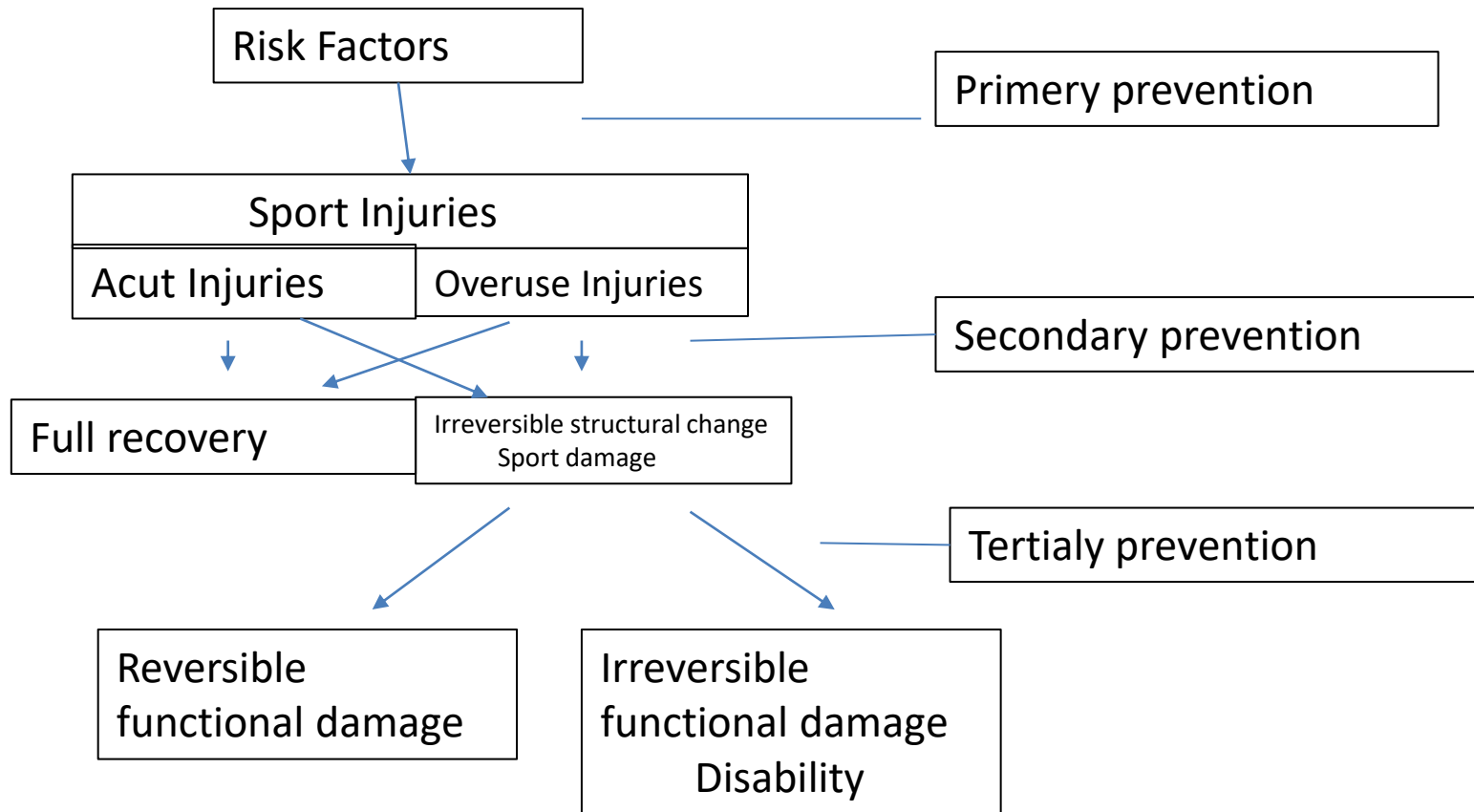


Prevention, injury prevention in handball

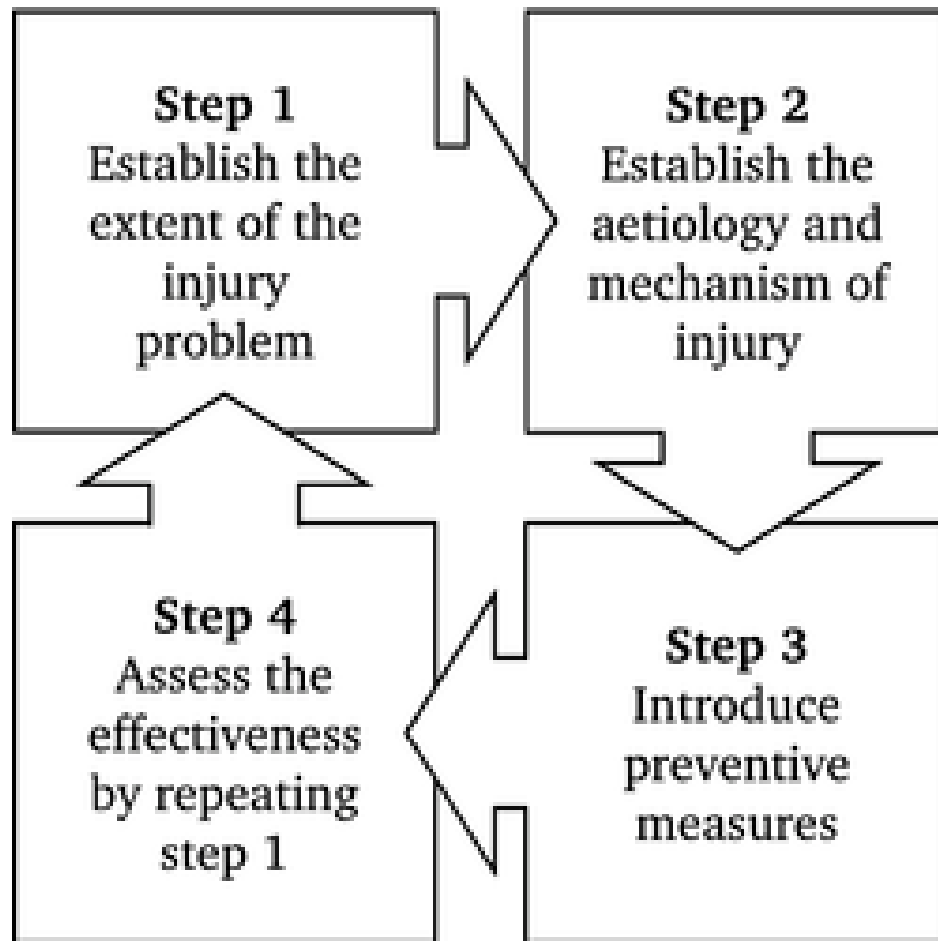


1. figure: Anatomical localization of lesions by gender

Levels of prevention



Four step of sports injury prevention



Injury Prevention Model as described by Van Mechelen.

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Team

- Coach's responsibilities
- Doctor's responsibilities
- Athlete's responsibilities
- Club's responsibilities



Prevention of sports injuries

- **Stage 1:** to determine the cause of the injury - risk assessment
- **Stage 2:** to identify risk factors
- **Stage 3:** to reduce risks
- **Stage 4:** to evaluate the effectiveness of the introduced methods



Prevention

- Learning appropriate movement patterns (neuromuscular control)
- Activating muscle stereotypes accurately (joint centralization)
- Strengthening suitable muscles in isolation
- Stretching appropriate muscles in isolation
- Training proprioception

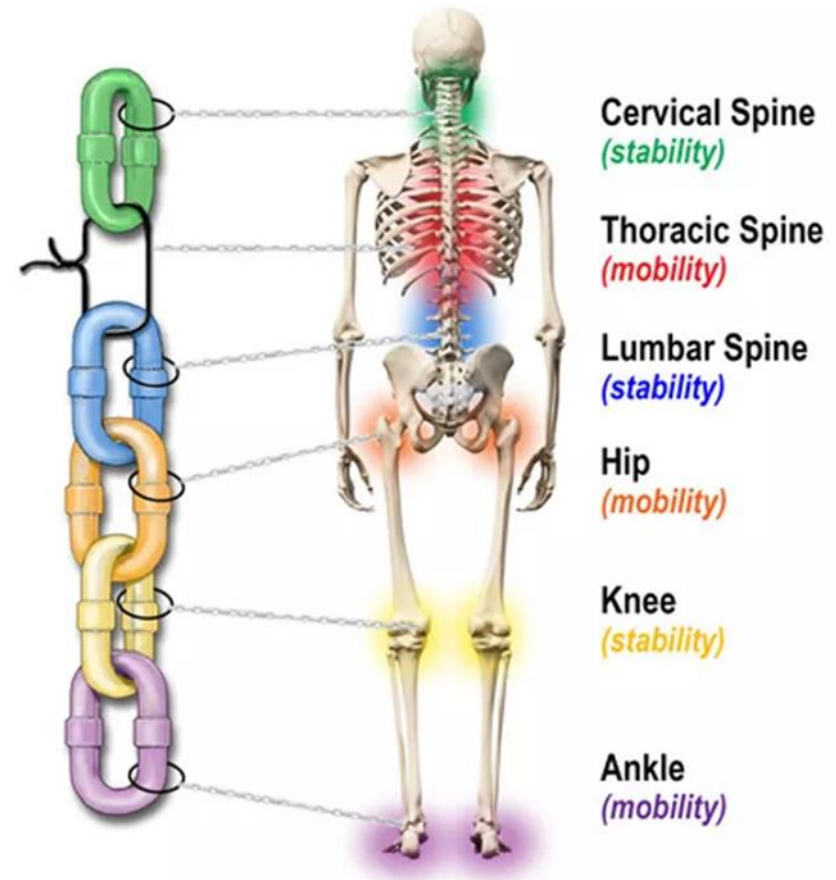


- Learning awareness of correct muscle movements, avoiding imbalances



The need for joint training

- **Ankle** – mobility
- **Knee** – stability
- **Hip** – mobility
- **Lumbar spine** – stability
- **Dorsal spine** – mobility
- **Scapula** – stability
- **Shoulder** – mobility



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Aspects of compilation of exercises

1. Cervical spine stabilization



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Aspects of compilation of exercises

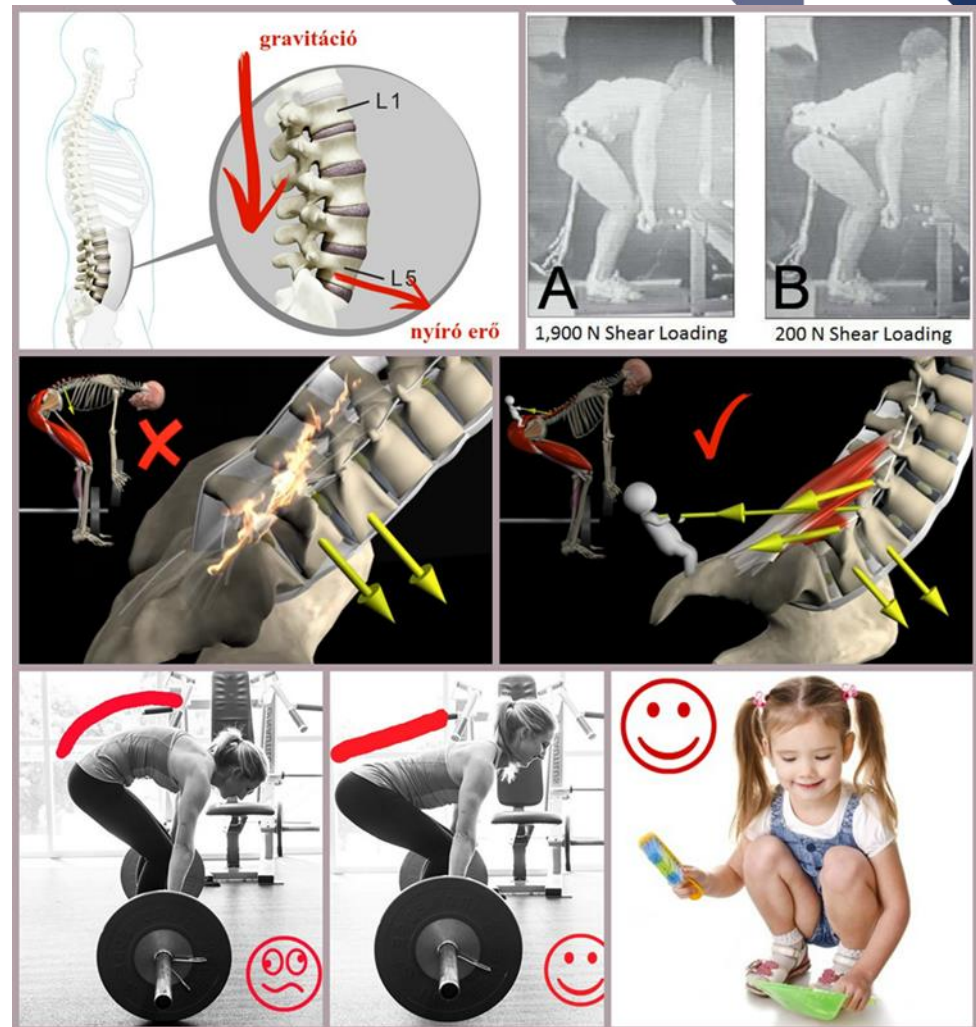
2. Thoracic spine and shoulder mobilization for protection of the lumbar region



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Aspects of compilation of exercises

3. Lumbar spine stabilization

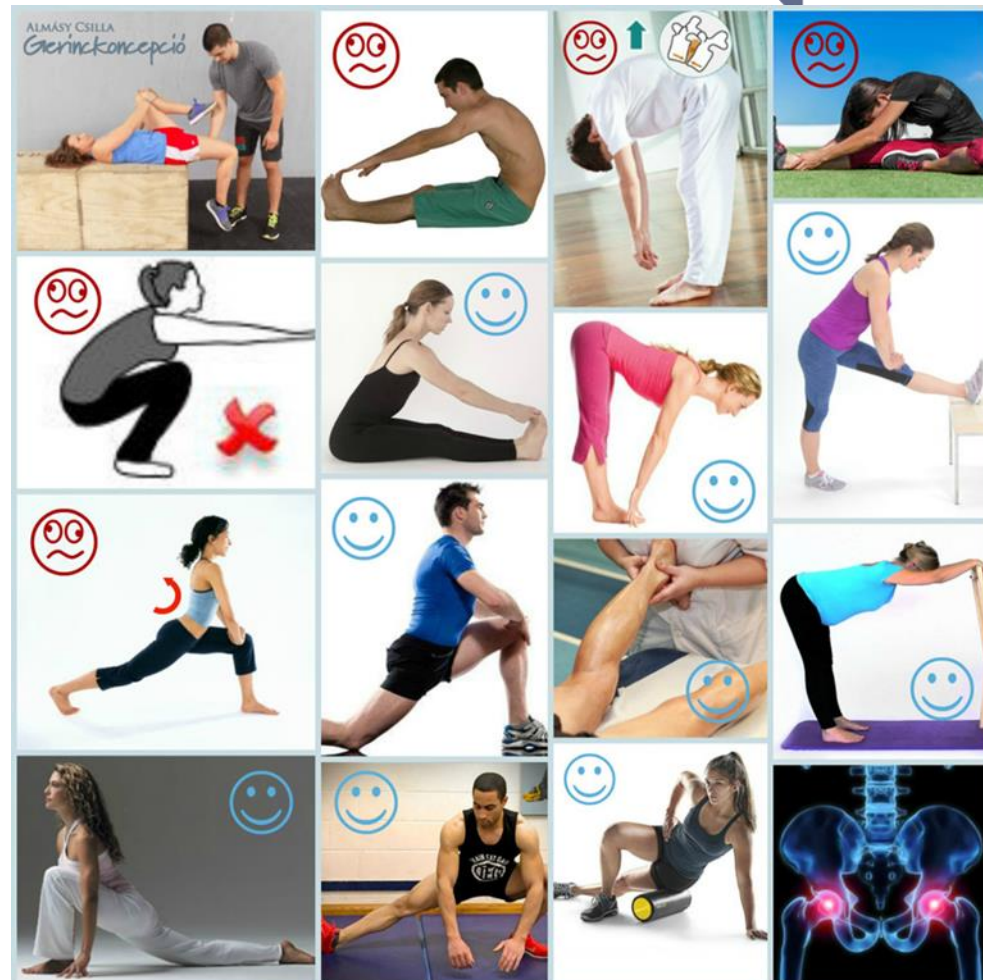


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Aspects of compilation of exercises

4. HIP mobilization

- Flexion contracture
- Extension contracture
- Abduction contracture



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Aspects of compilation of exercises

5. Excentric training
6. Proprioception training
7. Joint centralization
8. Neuromuscular training



Aspects of compilation of exercises

9. Core training

- With every simple movement, the spine-stabilizing function of the core muscles is activated.
- If the core muscles are not strong enough, they decrease the real strength of the body
- Trunk muscles are part of the movement chain, and have important role in power transmission

Roles:

- Standing on one leg
- Lateral bending forces –
- Compensation of rotating forces (during collisions, changes of direction)



Quiz

1. Which are external factors?: Which are internal factors?:
a) climate b) mental state c) age d) sports partner e) weather f) gender
2. Which are acute sport injuries? Which are overuse sports injuries?
a) Tennis elbow b) tibia fracture c) rotator cuff tear d) Achilles tendinopathy
3. Which level of prevention does the use of roller-soled shoes belong to?
a) Primary b) secondary c) tertiary



Thank you for your attention!



Prevention

PTE295

