



UNIVERSITY OF PÉCS  
MEDICAL SCHOOL

# Sport injuries of lower limb

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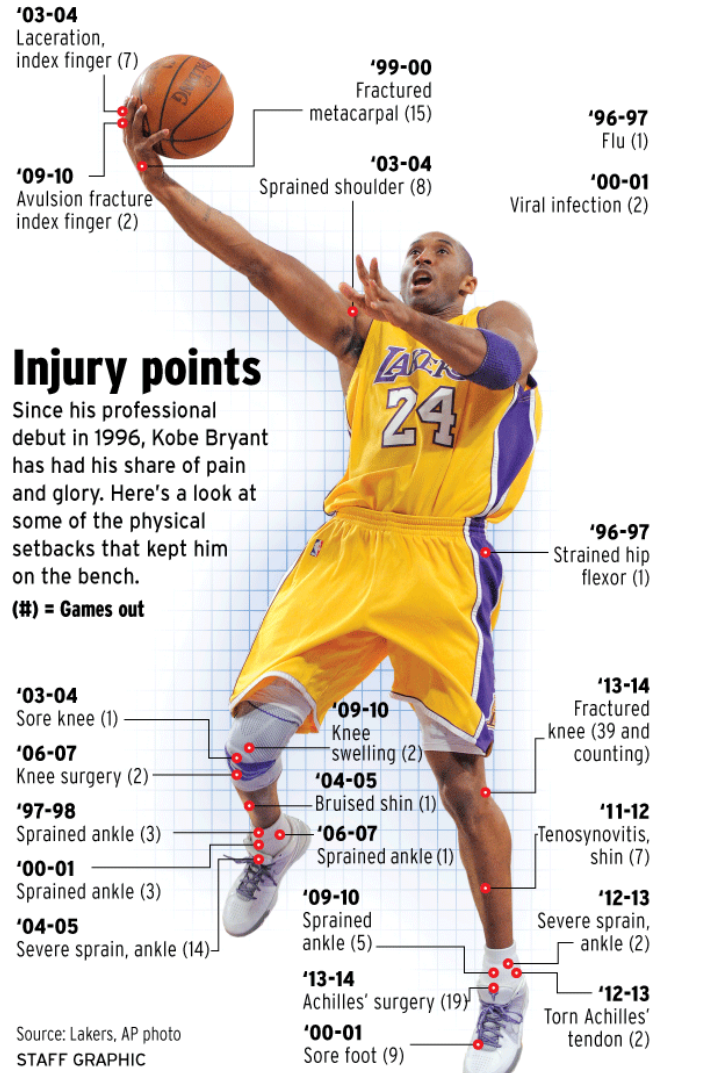
## Sport rehabilitation

What is different in case of rehabilitation of athletes?

- aims
- characteristics of sport
- periodic factors of sport
- rules of sport
- roles of coaches and parents
- motivation, attitude



## Sport rehabilitation – what kind of and how many...?



## Beckham's Injuries

David Beckham's latest injury will keep him out of the World Cup.

Broke a rib  
Nov. 17, 2002

Right hamstring injury  
Oct. 22, 2003

Right knee injury  
March 4 and Aug. 29, 2007

Right calf muscle injury  
March 28, 2004

Calf injury  
Sept. 3, 2003

Back injury  
Feb. 8, 2006

Lower back injury  
Nov. 9, 2003

Sprained left ankle  
June 6, 2007

Tore left Achilles' tendon  
March 14, 2010

Broke left foot  
April 10, 2002

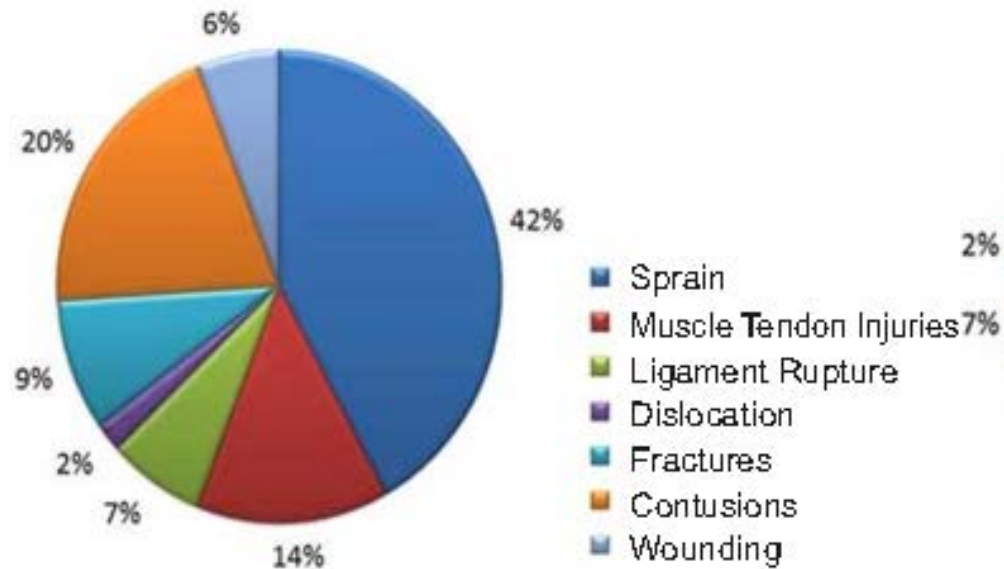
Injured left foot  
April 10, 2002

SOURCE: AP Reporting

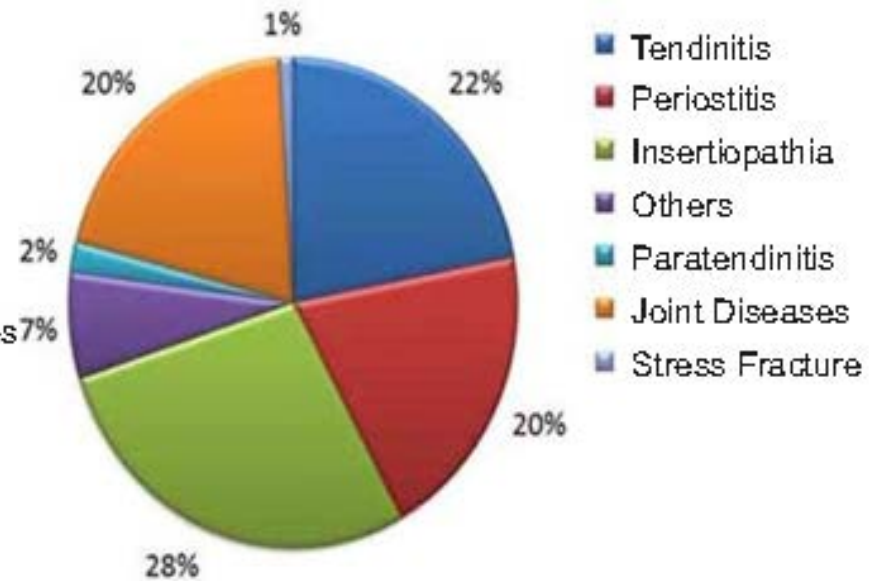
AP

# Types of injuries

## Acute injuries



## Overload injuries



acute : overload = 40:60

# Rehabilitation protocol of soft tissue injuries



**P**



## PROTECTION

Avoid activities and movements that increase pain during the first few days after injury.

**E**



## ELEVATION

Elevate the injured limb higher than the heart as often as possible.

**A**



## AVOID ANTI-INFLAMMATORIES

Avoid taking anti-inflammatory medications as they reduce tissue healing. Avoid icing.

**C**



## COMPRESSION

Use elastic bandage or taping to reduce swelling.

**E**



## EDUCATION

Your body knows best. Avoid unnecessary passive treatments and medical investigations and let nature play its role.

**&**

**L**



## LOAD

Let pain guide your gradual return to normal activities. Your body will tell you when it's safe to increase load.

**O**



## OPTIMISM

Condition your brain for optimal recovery by being confident and positive.

**V**



## VASCULARISATION

Choose pain-free cardiovascular activities to increase blood flow to repairing tissues.

**E**



## EXERCISE

Restore mobility, strength and proprioception by adopting an active approach to recovery.



## Sportrehabilitáció – alsó végtag

### Lower limb injuries in childhood

- Schlatter – Osgood
- Sever disease

When could they return to sport?

**In addition to rehabilitation guidelines for each sport injury there are functional preconditions**

1. No pressure sensitivity in affected area
2. Full function (ROM, muscle strength)
3. Pain relief during both eccentric and concentric muscle activity



## Sport rehabilitation-periodisation



	Rehabilitation
Monday	Qualitative training (max.power, intensive development)
Tuesday	Quantitative training (functional development, extensive)
Wednesday	Recovery day
Thursday	Qualitative training
Friday	Quantitative training
Saturday	Recovery day
Sunday	FREE

# Guidelines of ACL injury

- Most common injury
- Conservative or surgical treatment ???
- Maximal (0-6 week) - moderate (6-12 week) –minimal (from 12. week to 9. month) protecting phases
- + Follow-up session (+ 1year) → secondary prevention
- Return to sport before 9 month → >40% chance of re-injury
- Return to sport after 9 month → <20 % chance of re-injury







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# Thanks for attention!