

VILMOS DANI M.D.

Department of Family Medicine
Faculty of Medicine, Semmelweis University
Budapest, Hungary

GIZELLA PERÉNYI M.D.

Department of Rehabilitation
National Institute of Sports Medicine
Budapest, Hungary

1. Is there any difference between the injuries suffered by sportsmen and those of the average person?

NO, there isn't.

2. Are there any differences between the stages of prevention and rehabilitation for athletes and for the average patient?

YES, there are:

in the intensity of the exercises
and the duration of the healing process

We can reduce the risk of injuries by paying attention to the following points

- The better your **physical condition**, the lower the risk of injury.
- Perform a complete **warm-up** before each practice or match and a **cool-down** afterwards, for approximately 10 to 15 minutes each.
- Pay attention to the correct performance of **stretching exercises**.
- After a strenuous practice or match **a massage** may help to relax the muscles.

Physical condition

- **Regular** physical activity is essential!
- Improve your physical condition with regular
 - running, jogging,
 - cycling,
 - swimming,
 - etc.



Physical condition

The effects of regular exercise:

- it strengthens the muscles, including the heart muscle
- it improves the circulation
- it increases the supply of blood and oxygen to the muscles and brain
- it increases stamina
- it improves the ability to concentrate
- it reduces the frequency of injuries

Physical condition

Further effects of regular exercise

- It delays the onset of
- heart and circulatory diseases
- diabetes mellitus
- hypertension
- osteoporosis
- degeneration of bones and joints
- It helps to reduce excess weight.

Warm-up

It is very important to prepare the body for intensive physical effort.

Ensure a gradual build-up of training, so the body can get used to the extra load.

Step 1. Running.

Step 2. General gymnastics.



Stretching exercises

The cool-down and stretching exercises after sports activity both help in the regeneration of the body.



Massage

Massage helps to relax the muscles and increases blood flow to the tissues, which reduces muscle cramp and enhances recovery.



The most common injuries

Tennis elbow
Achilles tendon injury
Calf muscle strain („Tennis leg”)
Ankle sprain

The steps and exercises needed for prevention and rehabilitation of these injuries are similar.

Tennis elbow

- Tennis elbow is the best-known and also the most painful injury in tennis players.
- It is an overuse injury of the extensor muscles of the wrist.



Tennis elbow

- The pain is felt at the outer side of the elbow and it may radiate into the arm, wrist and fingers.
- Lifting, gripping, twisting the wrist, shaking hands, washing dishes or opening a door may all be very painful.

Tennis elbow

- How can we prevent the injury?
- How can we ensure the best recovery?

Tennis elbow

We have to focus on improving flexibility and strengthening the forearm muscles.

- Stretch the forearm extensor muscles daily.
- Increase grip strength.
- Strengthen the forearm flexor muscles.
- Strengthen the forearm extensor muscles.



Achilles tendon injury

- An injury of the Achilles tendon is a degenerative condition of the tendon, not an inflammatory process. It is a tendinopathy.
- The pain is felt in the Achilles tendon, 5-7 cm above the heel.



Calf muscle strain („Tennis leg”)

- „Tennis leg” is an incomplete rupture of the inside of the calf muscle.
- It is a typical tennis injury.
- The main symptom is a sudden, sharp or burning pain in the leg.



Achilles tendon injury and calf muscle strain

- How can we prevent the injury?
- How can we ensure the best recovery?

Achilles tendon injury and calf muscle strain

- Cycle or swim for 20-30 minutes every day to preserve general fitness. It increases the blood flow to the calf muscles and enhances recovery.
- Stretch the long calf muscles.
- Stretch the short calf muscles.
- Strengthen the calf muscles.
- Do easy jogging, and easy running and jumping exercises.
- **General rule: Do not increase the intensity, frequency and duration of the practice too quickly.**



Ankle sprain

- A sprained or twisted ankle is one of the most common tennis (sport) injuries.
- In most cases, the injury is caused by landing on the outside of the foot. The relatively weak lateral ankle ligaments are then injured.
- The symptoms are pain and swelling around the ankle, mainly on the outside, later followed by discoloration of the skin.



Ankle sprain

- How can we prevent the injury?
- How can we ensure the best recovery?

Ankle sprain

- Move the ankle without load
- Walk on your heels, then on your toes. Finally walk on the inside of your feet and then on the outside of your feet.
- Stand on the injured foot, with arms spread to keep your balance.
- A very good exercise for the muscles around the ankle and foot is skipping. This should be done with care, however. It is important to build up this exercise gradually.



Conclusion

- The better your physical condition, the lower the risk of injury.
- Perform a complete warm-up before each practice or match, and a cool-down afterwards.
- Ensure a gradual build-up of training, so the body can get used to the extra load.
- Pay attention to the correct performance of stretching exercises.

TAKE HOME MESSAGE Keep moving !!!



