



Gymnastics

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How does gymnastics impact on the foot?

Because gymnastics is unique, being performed with minimal, if any, foot support, the feet are more at risk of injury than most other sports. Nearly every activity in gymnastics is considered high impact.

Gymnastics requires tremendous strength and flexibility. Gymnasts are prone to a wide range of injuries due to their superior flexibility, which allows them to move beyond the normal range of motion. It also requires a lot of balancing on the feet and hard landings.

Gymnasts have among the highest injury rates of all athletes.

What are common problems that affect gymnasts?

- **Callus** – thickened areas of skin which typically form on the bottom or sides of the feet. Caused by excessive, prolonged pressure and friction.
- **Blisters** – caused by friction and the repeated rubbing of the skin against the inside of the gymnast's shoe or the equipment. Effects of blisters are made worse by damp, sweaty conditions of the shoe.
- **Verrucae** – a viral infection of the skin which is spread from one person to another either directly or indirectly. As gymnasts are barefoot a lot of the time, it makes them more prone to this complaint.

Please turn over...



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Injuries

Musculoskeletal injuries can either be acute traumatic or chronic overuse. The most common foot and ankle injuries seen in gymnasts are:

- **Ankle injuries** – ankle sprains and even fractures are common among gymnasts. They can easily land off balance from jumps or on the edge of the mat. Many ankle injuries occur when gymnasts perform twisting motions during floor exercises, vaulting, and dismounts from beams. They can also be the result of falling from an apparatus or missed moves during practice.
- **Achilles tendon injuries** – gymnasts can suffer from a variety of injuries to the Achilles tendon located just above the back of the heel, as a result of the repetitive stress of jumping and landing. Gymnasts tend to perform most of their manoeuvres with a pointed toe, which can lead to decreased elasticity of the tendon. The repetitive nature of the sport, especially during practice, also increases the risk of chronic tendon problems.
- **Heel pain** – due to the high impact and repetitive nature of gymnastics, gymnasts are prone to heel pain. This can be in the form of heel bruising, irritation of the fat pad or fracture.
- **Plantar fasciitis** – this usually presents as pain in the arches of the feet, often just at the insertion of the heel bone. Can be caused by flat or high arched feet and common in gymnastics because of the lack of supportive footwear and the repetitive nature of the sport.
- **Fractures** – the repeated trauma of landing roughly, or incorrectly, from dismounts can cause stress fractures of the long bones of the foot. An off balance landing may also cause toes or other bones within the foot or ankle to be broken.

When to seek the help of a podiatrist

A problem with the foot that is causing pain warrants the opinion of a podiatrist. Early intervention is usually best and may help to prevent a minor problem becoming much more serious.

If an injury is altering the way you walk, run or perform gymnastics, you should see a podiatrist as soon as possible.

Top tips

1. Wear the required safety gear and, in particular, footwear, when possible.
2. Look after your feet even when you are not practicing or performing your gymnastics. Check them each day for any problems and moisturise them on a daily basis.
3. Try not to be too repetitive in your schedule, most injuries are overuse.
4. Ensure good nutrition, important for injury prevention and helps bone and muscle strength.
5. Listen to your body, if it hurts, it usually means something is wrong.

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