

## PHYSICALLY SPEAKING

### FOOT FITNESS

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As you chase down balls on the court, jump for a smash, slide to reach a wide ball and quickly change direction, you rely on your feet to propel you around the court with speed and agility.

The human foot is complex, containing 26 bones, 33 joints and a network of more than 100 tendons, muscles and ligaments, and an intricate network of blood vessels and nerves. If any one of these structures is damaged, it can cause foot injury and pain.

- Your feet are like a finely tuned race-car: one small problem and whole car slows down.
- Choosing the right shoe and ensuring it fits properly for your foot type is one “step” in a comprehensive foot care plan. (Read the March 1999 **Physically Speaking** topic, Put Your Best Foot Forward)
- Many common injuries or illnesses that affect the foot and nail can cause pain and interfere with your tennis performance. Proper foot care is a vital step towards faster footwork on court.



All Tennis Photos:  
Getty Images



**Did you know?**  
Your two feet  
contain one  
quarter of ALL  
the bones in  
your body!!

#### My Feet Hurt!

There are many conditions that affect the feet and can ↓ your on-court performance.

**Blisters** = Small skin irritations, caused by friction and aggravated by moisture.

- They can cause considerable pain and prevent you playing tennis.
- Studies suggest that individuals who have foot blisters are at greater risk of injuries (overuse of the muscles and tendons, stress reactions and fractures).
- If you get a blister, see a Primary Health Care Provider (PHCP) for assistance.

**Corns/Calluses** = Skin thickening as result of pressure and repeated friction.

- They can cause pain and sometimes infection at the area of pressure.
- Some medications applied to corns can remove them, but the pressure that causes these problems must be ↓ to completely eliminate them. (Shave calluses down)

**Neuromas** = enlarged, benign growth of nerves, most often between 3<sup>rd</sup> and 4<sup>th</sup> toes.

- These are usually caused by a combination of poor fitting shoes, foot biomechanics and the position of the foot in tennis (weight forward on balls of feet).

**Plantar Fasciitis** = Inflammation of the band of tissue, called fascia, that supports the base of the foot.

- Prevention includes good shoe selection, routine foot care and stretching pre and post play.

**Warts** = Virus infection of the skin, spread by contact with infected areas.

- Wear shower shoes to prevent contact.
- Most warts are harmless. On the sole of the foot they can be painful and restrict play.
- Treatments include medications applied directly to the wart, “burning” the wart off with extreme cold (liquid nitrogen) or removal of the wart by minor surgery.

**Ingrown Nails** = Corner or side of nail digs into the skin, causes pain and maybe infection.

- Improper nail trimming is often related.
- Do *not* attempt your own “bathroom surgery”. This can exacerbate the problem.

**Subungal Hematoma** = Blood under the nail caused by the nail hitting against the shoe.

- Can be extremely painful. May need the nail drilled, the blood drained and padding to play.

**Nail Fungus** = A fungal infection under and within the nail that causes thick, yellow, crumbling nails.

- To prevent contact with the fungus, avoid walking barefoot, and wear shower shoes.
- Medication can assist to eliminate the fungus.

**Athletes Foot** = Fungal infection of the skin, usually between toes or on the sole of the foot.

- To ↓ risk of infection, wear shower shoes, dry shoes and socks, and thoroughly wash and dry your feet.
- This infection is treated with medication.



## HAPPY FEET

### Moisture Management

There are 200,000-250,000 sweat glands per foot. At rest, a typical foot can produce a quarter cup of sweat every 12 hours. With increased activity, sweat production can be ↑ by four times! That's some wet and smelly socks!!!!

**Hyperhidrosis** = excessive perspiration.

- Wet feet can cause poor shoe fit, slipping in the shoe and blisters.
- Damp skin is easily irritated and at risk of fungal or viral infections that thrive in moist, warm environments.
- There are a number of products (applied to the feet) that can help ↓ hyperhidrosis.
- Speak to a PHCP if you suffer with this problem.
- Remember! Clean, dry feet resist disease and friction related injuries!



### Socks

Socks are an often overlooked piece of equipment. They provide an athlete with function, comfort and the potential to prevent injury. Sock technology helps control moisture, dissipate heat, provide cushion, shock absorption and resists friction. Choose socks that combine all of these elements.

- Look for fabrics with properties that help to "wick" moisture away from the feet.
- 100% cotton socks will *not* help ↓ moisture or heat (both may cause friction and blisters).
- The PHCPs can help you select good socks by examining all factors: shoes, foot type, court surface and environment.

**"You have to be fast on your feet and adaptive or else a strategy is useless."  
Charles De Gaulle (French President 1958- 1969)**

### Essential Foot Care



- ✓ Wash your feet frequently with soap and water, dry thoroughly.
- ✓ **Always** wear shower shoes (flip flops) in public areas and **avoid** walking bare-footed at all times.
- ✓ Allow shoes to dry between use.
- ✓ Remove your orthotics and allow them to dry thoroughly between use.
- ✓ Wear dry socks for practice and afterwards.
- ✓ Change into dry socks during a match if you sweat heavily.
- ✓ Replace your shoes often. Have at least 2 pairs of court shoes and orthotics, in good condition, at all times. **See a PHCP to determine how often you need to replace shoes or orthotics.**
- ✓ The PHCP will examine your shoe fit, socks and foot biomechanics and advise you on the best options.
- ✓ Check all new shoes for fit, even if they are the same model!
- ✓ Always check the inside of shoes for seams or areas that may cause irritation.
- ✓ Keep corns and calluses trimmed to prevent pain and possible blisters.
- ✓ Remove a small amount of callus on a frequent basis.
- ✓ Every athlete should have her own callus shaver and foot care tools.
- ✓ See a PHCP for assistance in obtaining callus shavers and their proper use.
- ✓ Trim toenails **straight across** so they do not extend beyond the tip of the toes to avoid ingrown nails.
- ✓ Do not use the same clippers on normal and abnormal nails-this spreads infection.



### Pedicures

Pedicures will make your toes look pretty, and they can make your feet feel great.

- Choose a nail salon that practices safe foot care: i.e. disinfects all equipment and foot spas after each client and uses disposable cutting implements for each client.
- You may take your own pedicure tools to the salon; a good nail care salon will not object.
- Do **not** apply polish to nails suspected of infection; or on red, discolored or swollen toes.

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