

Athlete's foot (tinea pedis)

Athlete's foot is a fungal infection medically known as tinea pedis. It's a problem that usually affects young adults.

Causes of athlete's foot

Dermatophytes (types of fungi that cause common skin infections such as tinea pedis) like to live in warm, moist environments. Therefore feet that are cooped up in shoes or trainers all day provide the ideal breeding ground for infection.

The infection is picked up when we come into indirect contact with fungal spores. These live in skin that has flaked off from the foot of another athlete's foot sufferer. So, when we walk around barefoot, we can pick up the discarded, infected skin from another sufferer, on our feet. The fungi can then establish itself, grow and penetrate deeper into the skin. Common places to pick up an infection are in communal changing areas and swimming pools, or through sharing towels. Direct contact (i.e. skin to skin) can also cause athlete's foot.

Signs and symptoms of athlete's foot

There are three different types of athlete's foot: interdigital athlete's foot, plantar or moccasin athlete's foot and vesicular athlete's foot.

- Interdigital athlete's foot is the most common and mainly affects the skin between the fourth and fifth toes. Symptoms include:
 - itchy toes and feet
 - flaky peeling skin
 - cracked skin
 - inflamed, sore and red skin.
- It can spread to other toes and the side and soles of the feet (this is called plantar or moccasin athlete's foot).
- Rarely, vesicular athlete's foot occurs where there are small vesicles (like blisters) over the instep of one or both feet.

Treatments for athlete's foot

Treatments can be divided into:

Fungistatics – work by inhibiting the growth of fungi by stopping the production of a substance essential for the fungal cells to grow.

Fungistatic treatments – include the imidazole group of antifungals such as clotrimazole, miconazole, undeconoate, ketoconazole and tolnaftate.

Imidazoles should be used for two to four weeks to clear the infection and for a further one to two weeks after skin has healed. It's important that you continue treatment once the infection appears to have cleared as fungal spores can remain in the skin. That's why treating for an extra week or two helps to make sure the skin is spore-free. If you stop treatment too early, the spores remain in the skin and it's likely that the athlete's foot will recur.

There are also treatments available if you are suffering from athlete's foot that is particularly red and inflamed. For example, creams containing an antifungal and an anti-inflammatory such as 1% clotrimazole and 1% hydrocortisone or miconazole and hydrocortisone. Hydrocortisone will help to reduce the inflamed skin and reduce the itching while the antifungal will treat the underlying infection. You should use these products for up to seven days and then use another antifungal product (without hydrocortisone) such as a cream or spray until the infection has cleared.

Fungicidals – work by killing the fungi.

Fungicidal treatments – available from your pharmacist, include terbinafine. Terbinafine is not suitable for those under the age of 16 and should be used for a maximum of one week.

Treatment tips

If treated correctly, you should only need to put up with athlete's foot for up to four weeks. If left untreated, however, the problem can continue for months, and you are more likely to experience complications such as fungal nail infections. So, it's important to use treatments correctly.

- Start treating symptoms as soon as they appear
- The number of times you have to apply a treatment depends on the product and formulation, some will be two to three times a day, while others can be just once a day
- The treatment should be applied directly to and around the affected area. The reason for this is that there may be fungi lurking in healthy skin, even if there is no sign of infection
- In general, you should carry on using the treatment until the athlete's foot has cleared – and for another week or two to get rid of any lasting fungi. This can be anything between one to two, or up to four weeks. Check individual packs for exact directions of use

Always consult a medical professional for further advice if:

- You suffer from diabetes
- If you think you may also have a fungal infection of the toenail
- If there is any evidence of a bacterial infection

- If you have treated athlete's foot for a couple of weeks with an antifungal treatment and there has been no improvement
- If there is any associated pain or discomfort
- If you also have fungal infected toe nails or other parts of the foot (Around 20 to 30 per cent of people with athlete's foot will also have fungal infected toenails, which can then re-infect the skin.)
- If itching has caused openings to appear in the skin, (leaving it vulnerable to further infection causing inflammation and yellow discharge).

Fungi facts

- Athlete's foot is also known as tinea pedis
- There are more than 500,000 different types of fungi, but only 100 types have the potential to infect humans
- Dermatophytes are the fungi that cause infections of the skin, hair and nails and this type of fungi is responsible for athlete's foot
- The most common dermatophyte infections are those caused by the Trichophyton species
- Trichophyton rubrum and Tricophyton interdigitale are the fungi that are most likely to cause athlete's foot.

Myth busting

- You have to play sport to catch athlete's foot.
- Although athlete's foot is common in people who play lots of sport, the reason they catch it is because they spend more time in humid communal changing rooms and wear trainers. Even un-sporty people can catch athlete's foot!
- Only people who don't wash properly get athlete's foot. Fungi don't discriminate between clean and dirty feet.

Prevention

It's common for people with athlete's foot to suffer further bouts of infection. Partly, this can be due to not using treatments for long enough, but it can also be because you pick up a new infection.

Making simple changes to your usual routine can help prevent future infections:

- Keep feet and toes dry – fungi need a damp, moist environment to thrive
- After washing feet daily, dry thoroughly paying particular attention to the area between the toes
- Wear cotton socks and shoes from natural materials (e.g. leather) as these help the feet breathe and stop them getting sweaty and damp
- Change socks and tights daily

- Don't wear the same shoes every day
- Don't share bath towels
- Don't walk around barefoot in communal changing areas, wear shoes or flip-flops to protect feet
- Wash hands after applying treatment to prevent the spread of infection
- Put an athlete's foot powder in shoes or socks as a preventative measure.

A wide range of women's health resources are available at www.healthywomen.org.uk

Disclaimer: This article is for general information only and is not intended to replace a consultation with a healthcare professional, nor is it intended to provide specific medical advice and should not be used for the diagnosis or treatment of medical conditions.

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