

Juvenile plantar dermatosis

Also known as atopic winter feet, forefoot dermatitis, moon-boot foot syndrome, sweaty sock dermatitis

What is juvenile plantar dermatosis?

Juvenile plantar dermatosis is a skin condition where there is cracking and peeling of the weight-bearing areas of the soles.

What is the cause of juvenile plantar dermatosis?

The condition occurs primarily (but not exclusively) in children who have atopic dermatitis (eczema), asthma or hay fever. Their skin seems more sensitive than the skin of others and friction appears to play a role. Boys aged 3 to 14 are most commonly affected.

This condition tends to be better in winter when shoes and socks are being worn, deteriorating in summer due to increased friction with the foot moving more in sandals, particularly if sweaty.

Wearing socks and shoes made of synthetic material can exacerbate the condition.

What does juvenile plantar dermatosis look like?

The soles become shiny and glazed with some scaling, painful cracks and fissures. Sometimes the heel and palms are affected as well.

The tops of the feet, the web spaces between the toes and the instep are typically spared.

How is juvenile plantar dermatosis diagnosed?

A diagnosis is usually made clinically, based on a medical history and the appearance of the rash. However, investigations such as skin scrapings or patch tests may be needed to distinguish it from other skin conditions (such as psoriasis, keratolysis exfoliativa, contact allergic dermatitis or fungal infection).

How is juvenile plantar dermatosis treated?

- Avoid skin irritants (e.g. soap and shampoo) and use a soap substitute such as aqueous cream or sorbolene.
- Avoid wearing shoes and socks made of synthetic materials. Well-fitting leather shoes and cotton socks should be worn instead. Wearing two pairs of cotton socks can help to reduce friction. Avoid wearing damp socks and change socks regularly.
- Apply moisturisers such as white soft paraffin regularly after a bath and before bed.
- Allow for days with little or no walking to allow the fissures to heal.
- Cover fissures with a sticky plaster, a “liquid bandage”, nail glue or zinc oxide paste.
- Use barrier creams and/or keratolytics.
- Reserve the use of topical steroid creams for flare-ups, particularly if the affected skin is red or itchy.

What is the likely outcome of juvenile plantar dermatosis?

Prognosis is good as the condition usually resolves by puberty.