

Medical News Today

What you need to know about chilblains

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Chilblains, also known as chilblain, pernio, and perniosis are small, itchy swellings on the skin associated with exposure to the cold.

They are not painful at first, but can become painful - they are acral ulcers; ulcers affecting the extremities.

Fast facts on chilblains

Here are some key points about chilblains. More detail and supporting information is in the main article.

- chilblains are a localized form of vasculitis
- full recovery can be expected within a couple of weeks
- the best method to avoid chilblains is to wrap up warm
- sores and blisters occur only in rare cases
- if untreated, they can lead to scarring and ulcers

Symptoms



Chilblains are also referred to as pernio or perniosis.

Chilblains generally appear a short while after being in the cold. Symptoms get worse if the individual walks into somewhere warm.

Chilblains signs and symptoms include:

- burning and itching sensation, usually in the extremities, such as the feet, hands, nose, or ears
- skin of the affected area may change color from red to dark blue and become inflamed (swollen)
- sores and blisters may appear (rare)

Doctors say that signs and symptoms will usually go away within a couple of weeks on their own if the patient avoids exposure to cold. More rarely, recovery may take months.

What are chilblains?

We don't know exactly what chilblains are, some studies show a localized form of vasculopathy that occur when a predisposed individual is exposed to cold.

Exposure to the cold and damp may damage tiny blood vessels (capillaries) in the skin, resulting in redness, blisters, itching, and inflammation. The itching, swelling, and blistering red patches may occur on the toes, fingers, ears, and nose.

Chilblains most commonly affect women, children, and the elderly. Especially skinny patients may be at higher risk of getting chilblains.

Treatments for chilblains, which consist mainly of topical remedies and medications, are usually effective and the patient makes a full recovery within a couple of weeks. If left untreated though, there is a risk of complications, such as skin ulcers, cracked or broken skin, and infections.

Vulnerable individuals who wrap up warmly, or stay away from the cold as much as possible are much less likely to develop chilblains.

Causes and risk factors

Our blood vessels narrow when exposed to cold. When returning to warmth, the blood vessels expand again. For some people, this change results in blood leaking out of the blood vessels, causing inflammation and chilblain symptoms, especially if the change from cold to warmth is abrupt.

The following groups of people are more susceptible to getting chilblains when exposed to cold:

- individuals with close family members who have/had chilblains
- patients with circulation problems
- patients with lupus

- people whose homes are draughty and cold (not well insulated)
- tobacco smokers
- women are more susceptible than men
- underweight individuals
- people with Raynaud's disease

Complications

Chilblains may sometimes lead to:

- infections
- skin ulcers
- scarring

Complications are generally linked to an underlying condition/illness.

In some cases, there can be a permanent discoloration of the affected area. Not scratching or rubbing the skin can help most of the complications mentioned.

Diagnosis

Diagnosing chilblains is straightforward. If symptoms are present and the patient has been exposed to cold, a doctor will diagnose chilblains.

The doctor will want to rule out other conditions such as lupus, Raynaud's phenomenon, erythromelalgia, and ischemia. If the diagnosis is in doubt, in rare cases, a skin biopsy may be taken.

Treatment



The best way to avoid chilblains is to avoid the cold.

The medieval Bald's Leechbook recommended that chilblains be treated with a mix of eggs, wine, and fennel root, but that is no longer advised.

The patient can treat chilblains that have not developed into an infection or skin ulcer with OTC medications purchased at a pharmacy.

According to guidance from the British National Health Service (NHS), patients have good results from applying a mixture of friar's balsam and a weak iodine solution (ask the doctor).

Corticosteroid cream - this may help with symptoms of inflammation and itching. If the skin is cracked the individual should see a doctor. Corticosteroid cream is available to purchase over-the-counter or online.

Vasodilators - for more persistent cases, vasodilators such as nifedipine or diltiazem might be prescribed. Some believe Vitamin D and calcium supplements can ease symptoms, but this has not yet been scientifically proven.

Home care

The following can ease symptoms:

- rewarm skin gently - do not massage, rub, or apply direct heat
- keep skin dry and warm
- apply lotion to reduce itching. Fragrance-free lotion is available to purchase online.
- clean skin with an antiseptic to reduce the risk of infection
- do not scratch

Prevention

To prevent chilblains:

- **When it is cold, dress appropriately** - this includes warm footwear (shoes and socks), gloves, a hat and scarf. In other words, wear clothing that protects the feet, hands, and ears from the cold. It is possible to protect the nose by wrapping something like a scarf around part of the face.
- **Increase circulation** - keeping active can help improve circulation.
- **Avoid exposure** - individuals who are particularly susceptible should try to avoid exposure to cold as much as possible.
- **Prepare in advance** - before venturing into the cold, warm up shoes and socks on the radiator.
- **Promote good circulation** - avoid wearing particularly tight shoes as this can further restrict blood vessels.
- **Keep sudden temperature change to a minimum** - when coming back from the cold, do not expose susceptible areas to sudden warmth (a gradual process is better).
- **Keep in shape** - exercise at least four times a week; this helps maintain proper circulation.