



Chilblains / Pernio

What is chilblains? Chilblains, also known as pernio, is a localized form of vasculitis (inflammation of the blood vessels) that occurs as a reaction to the cold. The hands and feet, fingers and toes are most commonly affected, although the nose and ears can also be involved in some cases.

What causes chilblains? Chilblains develops several hours after exposure to the cold in temperate, humid climates. It can be aggravated by rapid heating of cold skin. Low temperatures cause constriction of the small arteries and veins in the skin, and re-warming results in leakage of blood into the surrounding tissue and swelling.

What does chilblains look like? Chilblains presents as itchy and/or tender, red or purple bumps. The lesions develop over the course of a few hours and subside over the next 7-14 days. More severe cases are characterized by blisters, pustules, ulceration and crusting. In chronic cases, the lesions may become thickened and persist for months.

Who is at risk for chilblains? Children, the elderly, and women are most often affected. Chilblains is also more likely to develop in those with poor circulation in their limbs (peripheral vascular disease due to diabetes, smoking, high blood pressure, etc). Strangely, chilblains is actually less common in people who live in countries that have colder, drier climates because their clothing and living conditions are specially designed to protect them against low temperatures. Other risk factors may include a familial tendency, poor nutrition, hormonal changes, and connective tissue diseases (e.g. lupus or scleroderma).

How is chilblains treated? In children, recurrences during the winter for several years are common, with eventual complete recovery being the rule. Chilblains in the elderly has a tendency to get progressively worse unless precipitating risk factors are avoided. Although chilblains often responds poorly to treatment, the following medications may be tried:

- A strong topical steroid applied for a few days may relieve itching and swelling.
- Antibiotic ointment or oral antibiotics may be necessary to treat secondary infection.
- Vasodilators such as calcium channel blockers can open up the blood vessels and improve circulation.

How can I prevent chilblains? Prevention is crucial since chilblains is not easily treated once it develops. The hands and feet MUST NOT be allowed to get cold. The following measures may help to keep you warm:

- Insulate and heat your home and workplace.
- Wear warm clothing, especially gloves, thick wool socks, and comfortable protective footwear. Keep your head and neck warm with a hat and scarf.
- Before going outside, soak your hands in warm water for several minutes to warm them, then dry thoroughly.
- Exercise before going outside in cold weather.
- Wear cotton-lined waterproof gloves for wetwork.
- Apply sunscreen to exposed skin, even on cloudy days.
- DO NOT smoke! In addition to all the other health issues that arise from smoking, it can cause damage to your blood vessels. This results in poor circulation, making you more susceptible to chilblains.

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For more information on chilblains/pernio go to:
www.dermnet.org.nz/reactions/chilblains.html