Pompholyx is a type of eczema where there are itchy blisters on the hands and feet, followed by inflamed and dry skin. It can be a temporary condition, or in some cases, is more persistent. There are various treatments that can help.

What is pompholyx?

Pompholyx is a type of eczema which affects the hands and feet, causing tiny blisters and irritation. Eczema is a condition causing skin inflammation. See separate leaflet called Atopic Eczema for more details. Pompholyx is also known as dyshidrotic eczema or vesicular eczema of the hands and feet. Other names are cheiropompholyx if it affects the hands, or pedopompholyx if it affects the feet.

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What causes pompholyx?

The exact cause is not known (as with eczema). However, there seem to be some factors which might be involved in causing or triggering this condition. These are:

- Metals such as nickel or cobalt (either on the skin, or in food).
- An antibiotic called neomycin (this is not often used).
- Certain chemicals - for example, perfumes.
- Fungal infection of the skin (see below).
- Emotional stress.
- A link with HIV infection and its treatment has been identified.
- A rare form that runs in families has also been discovered.

Pompholyx may be aggravated by anything which is irritant to the skin, such as detergents, various solvent-type chemicals and water (if there is frequent or prolonged contact with water).

Who develops pompholyx?

Pompholyx probably affects about 1 in 20 people who have eczema on their hands. It is less common after middle age and in older people. It is slightly more common in women than in men. It happens more often in the spring and summer and is more common in warmer countries.

What are the symptoms of pompholyx?

At first, there are tiny blisters in the skin of the hands or feet. They are located on the palms or fingers of the hands (often on the sides of the fingers) and on the soles or toes of the feet. The blisters may feel itchy or burning. Sometimes the small blisters can merge to form larger ones. As the blisters start to heal, the skin goes through a dry stage where there are cracks or peeling skin.

If there is severe pompholyx near the fingernails or toenails then the nails may have ridges, or there may be swelling at the base of the nail (called paronychia).
Sometimes the blisters or skin cracks can become infected. If so, there may be yellow fluid (pus) in the blisters or cracks. Or, there may be increasing redness, pain, swelling or crusting of the affected skin. See a doctor urgently if you have these symptoms or if you suspect an infection.

How is pompholyx diagnosed?

It is diagnosed by the medical history and the appearance of the skin. Samples (swabs) are sometimes taken to rule out infection and you may be asked to have a blood test if the diagnosis is not obvious. A small piece of skin (a biopsy) may also need to be taken for examination under the microscope.

What is the treatment for pompholyx?

As with eczema, there is no absolute cure for pompholyx but it does respond to treatments. Possible treatments are:

**Compresses or soaks**

These are used when there are blisters, or if the skin is wet and weepy. Do not use them if the skin is dry. They help dry out the blisters and oozing and they have an antiseptic action.

**How do I make a compress or soak?**

One of the following liquids (solutions) can be used as a soak or compress. Use it for about 15 minutes, four times daily. You can soak your hands or feet in the solution. Or, use a clean cloth such as an old sheet or towel, soak it in the solution (this makes a compress) and put it on the affected skin:

- **A weak solution of vinegar.** The strength is not specified other than as 'vinegar in water'.
- **Burow's solution.** This is a solution of aluminium acetate in water. It comes as a powder to which you add water. Follow the instructions to make a 1:40 solution (the 1:40 is the strength of the solution). At present, it does not seem easy to buy Burow's solution in a shop in the UK but it is available online.
- **Potassium permanganate solution.** Note: this will stain skin and clothing. Potassium permanganate is available without prescription from pharmacies in the UK. It comes in the form of crystals, as a liquid (solution) or as dissolvable tablets. You will need to add water. If using crystals, drop four or five crystals into a litre of water. If using the tablets or liquid, follow the instructions to make a 0.01% solution (do not use the original liquid undiluted).

**Moisturisers and barrier creams**

As with eczema generally, moisturising creams or ointments are helpful for dry, peeling or cracked skin and to act as a barrier against water or chemicals. There are many different brands, which can be bought over the counter or prescribed. See your pharmacist or doctor for suggestions. **See separate leaflet called Moisturisers (Emollients) for Eczema for more details.**

**Steroid medication**

Steroids can be helpful because they reduce inflammation - this can reduce irritation and help the skin to heal. Steroids are best used as short-term treatments or in low doses; otherwise, side-effects may occur.

The usual steroid treatment for pompholyx is a short course of a **high-strength steroid cream or ointment**, used on the affected areas of skin. If your skin is blistered or wet (weeping), a cream type will work best. For dry or thick skin, ointment works better. High-strength steroids should not be used for more than about two weeks, without medical advice.

Rarely, in severe cases of pompholyx, steroid tablets may be used. They are effective but, again, may have side-effects, so are only used if really necessary.

**Antibiotic medicines and antifungal treatment**

If there are signs of infection (as above), an antibiotic can help.

There are also reports that some cases of pompholyx improve if fungal infections of the feet are treated. This type of infection is common and is usually a mild condition - it is often known as athlete's foot (tinea pedis). Antifungal creams such as clotrimazole or terbinafine can be used to treat this infection.

**Other treatments**

If pompholyx is severe or persistent, there are other treatment options. These will usually need to be discussed with a specialist. In the UK they may only be available from a skin specialist called a dermatologist. For example:

**Ultraviolet (UV) light therapy** - UV therapy or PUVA therapy. PUVA stands for 'psoralen combined with ultraviolet A (UVA)'. The treatment is UV light on the skin. It is usually given as a course of treatment at a hospital outpatient clinic.

**Medication affecting the immune system** These medications work by affecting the immune system to reduce inflammation. Examples are methotrexate, azathioprine and dapsone tablets. Another type is medication called tacrolimus or pimecrolimus in ointment form. All these may have serious side-effects, so the pros and cons of using them have to be considered. Sometimes, they are used to help reduce the amount of steroid medication that is needed.
Botulinum toxin. Some cases of pompholyx have improved after injections of botulinum toxin into the skin. Botulinum toxin is a substance that affects the nerves in the skin. Exactly why this works for pompholyx is not known. Possibly, it works by affecting the sweat glands, reducing sweat and moisture in the skin.

Testing and treating for possible trigger factors. A type of skin testing called patch testing may be used. This checks to see if particular substances such as nickel, perfume components, etc, cause a strong reaction in the skin. If so, you may be advised to try avoiding contact with these substances, to see if this improves the pompholyx.

There has also been some research testing sensitivity to metals by mouth (instead of on the skin). For example, giving oral doses of nickel and then observing the skin reaction. Reports suggest that, in some cases, diet changes such as reducing nickel in the diet, can help. Foods rich in nickel are canned foods, foods cooked in nickel-plated utensils, herring, oysters, asparagus and beans. It is not known whether this is relevant to the majority of people who have pompholyx. However, if you are found to be nickel-sensitive, it is worth trying a low-nickel diet for 3-4 weeks.

What is the outlook for pompholyx?

The time course of pompholyx varies for each individual. In some people it clears up in about 3-4 weeks and does not return. In others, it can be more persistent (doctors call this the chronic form). Some people have repeated bouts - each lasting a few weeks - and so the condition may seem to wax and wane.
Further reading & references


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