

Patient information from the BMJ Group

Burns and scalds

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Burns and scalds

Minor burns and scalds happen when you burn the top layers of your skin. They can be very sore. Your skin will probably blister, but it should heal within a few weeks. Minor burns and scalds don't usually leave a scar.

We've brought together the best research about minor burns and weighed up the evidence about how to treat them. You can use our information to talk to your doctor and decide which treatments are best for you.

This information is for people with minor burns or scalds. These are small and don't go very deep. Minor burns:

- Cover less than one-tenth (10 percent) of your body surface
- Cover less than one-twentieth (5 percent) of your child's body surface
- Do not affect the face, hands, feet, genital area, or any large joints.

If you or your child has a more serious burn or scald, you should get medical help straight away.

What are minor burns and scalds?

Burns and scalds are wounds caused by heat that damages your skin.



Minor burns and scalds only damage the upper layers of skin.

Burns and scalds

Minor burns and scalds only damage the upper layers of skin. The deeper layers are undamaged, so your skin can heal itself. Minor burns are divided into: ^[1]

- **First-degree burns** (such as mild sunburns). These affect only the very top layer, called the epidermis
- **Second-degree burns**. These extend into the second skin layer, called the dermis.

The ones we are looking at are called **superficial, partial-thickness burns**. They extend only into the top part of the dermis.

Children and old people are most likely to get burns and scalds. It's very common for children to have accidents that lead to burns and scalds. Many children get injured at home by:

- Boiling water from pots, pans, or kettles
- Hot drinks, such as freshly brewed tea or coffee
- Steam from steamers or kettles
- Hot plates, hot rings, oven doors
- Hot irons
- Hot baths
- Hot taps.

Children are most likely to get injured in the kitchen. It's important to keep an eye on children in the kitchen, especially if you're cooking or making hot drinks. Older people are more likely to be scalded by hot water in the bathroom.

Young men are also quite likely to burn themselves, through accidents involving fire, electricity, or liquids that can easily catch fire, such as petrol. ^[2]

What do minor burns and scalds look and feel like?

Minor burns and scalds are bright pink or red, and likely to blister. They feel very sore. You may need painkillers to help the pain.

If you burn or scald yourself, your skin will flush an intense red. When you touch the red area, your skin will go white under your finger.

Burns and scalds are very painful because the burn exposes the nerve endings in your skin. Even a light touch can hurt. The affected part may start to swell up. ^[3]

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If the burn or scald reaches the second layer of skin (called a second-degree or partial-thickness burn), you will get blisters within a few hours. Blisters are pockets of skin filled with a clear fluid.

How common are minor burns and scalds?

We don't know exactly how many people get minor burns or scalds each year in the UK. That's because not everyone with a burn goes to hospital or sees a doctor.

Only 1 in 20 burns are serious enough to need treatment in hospital.^[4]

Worldwide, about 2 million people are burned or scalded each year.^[4] Children and older people are more likely to burn or scald themselves than younger adults.

What treatments work for minor burns and scalds?

The most important thing when treating a minor burn or scald is to keep it clean and covered with a dressing. There are lots of different dressings available. We need more research to know which of these work best.

- There are things you can do to limit the damage when you first get a burn. To read more, see [First aid for minor burns and scalds](#).
- Don't put any cream or ointment on your burn.
- There are lots of different dressings for burns, although there's not much research to find out if one type works better than another. So we can't say if any dressings work best for helping a burn to heal.
- You need a dressing that won't stick to your skin, so avoid cotton wool and other fluffy materials.
- Paraffin gauze dressings are often used by doctors and nurses, because they are simple and seem to work well.
- You can buy most dressings from a pharmacy without a prescription.
- Paracetamol or ibuprofen can help the pain of minor burns.

You won't need to take antibiotic tablets or use antibiotic creams, unless your burn becomes infected.^[12] ^[13] If you think your burn is infected, you should see your doctor or nurse.

We've looked closely at the research into the different types of treatments for burns and scalds. We've given each treatment a rating, according to how well they work. But most types of dressing seem to work about as well as each other.

Treatment Group 1

Treatments for minor burns and scalds

Treatments that need further study

- [Alginate dressings](#)
- [Clear film dressings](#)
- [Dressings soaked in disinfectant](#)
- [Foam dressings](#)
- [Hydrocolloid dressings](#)
- [Hydrogel dressings](#)
- [Silicone-coated nylon dressings](#)
- [Paraffin gauze dressings](#)

Treatments that are unlikely to work or may be harmful

- [Silver medicated cream](#)

What will happen to me?

If you have a minor burn or scald, it should heal quickly, unless it's infected.

Most minor burns and scalds don't leave a scar, even if the skin has blistered. They generally heal in about two or three weeks.^[5] Your burn or scald will take longer to heal if it gets **infected**, so it's very important to keep it clean and covered.^[6]

If your burn or scald is small, with only one or two small blisters, you may be able to treat it at home. But if the blistered area is more than 5 centimetres to 7.5 centimetres (2 or 3 inches) across, you should see a doctor straight away.^[7] Your burn needs to be carefully cleaned and dressed. Your local accident and emergency department or minor injuries unit will be able to help.

Doctors sometimes disagree about what to do with blisters. Most blisters should probably be left alone, covered with a simple dressing. But some doctors open large blisters with a sterile needle or sterile scissors, to help them heal. Don't try this at home.^[6]

Burns that blister your skin sometimes weep and get infected. If this happens, you'll need help from a doctor or nurse. They can clean your burn thoroughly before putting on a dressing.^[6] ^[8]

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Thin, hairless skin, such as the skin on your inner arm, takes longer to heal than thick or hairy skin, such as the skin on your back or scalp.^[8]

We've put together some first aid tips for treating a burn as soon as it happens. This can limit the damage to the skin. To read more, see [First aid for minor burns and scalds](#) .

Treatments:

Alginate dressings

In this section

Alginate dressings soak up any fluid that leaks out of the burn and forms a layer of gel over it. So these types of dressing are used if there is pus and fluid coming out of your burn. The dressing will protect the wound from dirt and germs. It also keeps the area moist and warm, which are good conditions for your skin to heal. You remove the dressing by rinsing it off with water.

Brand names include Algisite, Kaltostat, and Sorbalgon.

We haven't found any good research on alginate dressings and how they compare with other types of dressing.

Clear film dressings

In this section

These dressings look a bit like cling film. They are waterproof, germ-proof, and see-through.

In the two studies we found (both randomised controlled trials), clear film dressings worked as well as paraffin gauze, and better than dressings soaked in [chlorhexidine disinfectant](#) .^[14] ^[15] Burns covered with a clear film dressing took about 10 days to heal. About 1 in 5 burns left a scar.^[14]

Dressings soaked in disinfectant

In this section

Some dressings are soaked in a disinfectant called chlorhexidine. It's normally used to clean wounds. One brand name is Bactigras.

We don't know if using a dressing soaked in disinfectant is helpful. In the four studies we found (all randomised controlled trials), burns covered with a chlorhexidine dressing didn't heal any faster than burns covered with other types of dressing.^[15] ^[16] ^[17] But they were more painful. In two of the studies, burns covered with a chlorhexidine dressing hurt more.^[15] These types of dressing are not used very often for treating burns.

Foam dressings

In this section

Foam dressings work in a similar way to [alginate dressings](#) and are sometimes used if you have fluid coming out of your wound. They absorb any fluid that leaks out of the wound and stop dirt and germs getting in. They also help to keep the skin moist. Some of these dressings come with a sticky border, others you have to secure at the edge with some tape.

Brand names for foam dressings include Allevyn, Lyofoam, and Trufoam.

We haven't found any good research on foam dressings and how they compare with other types of dressing.

Hydrocolloid dressings

In this section

Hydrocolloid dressings soak up fluid leaking from your burn and form a kind of gel. The gel seals the edges of your burn, keeping out dirt and germs. Hydrocolloid dressings keep the burned area moist and warm. These are good conditions for healing.

Brand names include Granuflex, Duoderm, and Comfeel.

We don't know for certain whether hydrocolloid dressings heal burns any faster than other types of dressing.^[16] ^[17] But some people prefer them to [paraffin gauze](#), the simplest kind of dressing. In one study (a randomised controlled trial), doctors and patients gave hydrocolloid dressings a 9 out of 10 rating on a scale from 0 (useless) to 10 (excellent).^[16]

Hydrogel dressings

In this section

Hydrogel dressings are made up of 95 percent water. They are less absorbent than some other dressings, such as alginate and foam dressings, so they might be useful if you don't have fluid leaking out of your wound. These dressings will keep the wound moist and protect it from dirt and germs. Some hydrogels come as a powder that you mix with water and apply to the wound. Others come as sheets that you need to cover with another dressing or bandage. There are also some that come as a ready-to-use dressing that does not need an extra covering.

Brand names include Aquaform, Granugel, and Intrasite.

There isn't much research looking at hydrogel dressings, so we can't say how well they work.

Silicone-coated nylon dressings

In this section

Silicone-coated dressings are designed to stop them sticking to the wound. One brand name is Mepitel.

Researchers have tested silicone dressings in children, but not adults. In two studies (randomised controlled trials), the children's burns healed in about seven to 10 days, slightly faster than burns treated with a medicated cream.^[18] ^[19] Burns treated with the silicone-coated dressing hurt less and were less likely to scar than burns treated with cream. But the studies weren't very good, so we can't be certain of the results.

Paraffin gauze dressings

In this section

Paraffin gauze is one of the simplest dressings for a burn. Paraffin gauze is covered in a substance similar to Vaseline. Brand names include Jelonet.

Many doctors and nurses use paraffin gauze. They cover the dressing with cotton wool and a stretchy bandage.^[12] Although it's a common treatment, there is very little research comparing paraffin gauze with other types of dressings.

We found one small study (a randomised controlled trial) that compared paraffin gauze dressings with [clear film dressings](#). Researchers didn't find much difference between the treatments in how long the burns took to heal and how much pain the burns caused. Burns covered with paraffin gauze healed in seven days on average.^[14]

You need to be careful when you use dressings that contain paraffin, as these can catch fire easily.^[20] Don't smoke or use a naked flame when using these type of dressings. And change your clothes and bedding regularly as the paraffin can seep into these fabrics.

Silver medicated cream

In this section

Silver sulfadiazine cream is medicated with silver to help kill germs and prevent infection. But the research shows it doesn't work as well as a normal dressing.^[17] ^[18] ^[19] ^[21] ^[22]

You can only get this cream with a prescription from your doctor. The brand name is Flamazine.

When we looked at the research, we found it didn't speed up healing or help pain. We looked at several small, good-quality studies ([randomised controlled trials](#)).^[17] ^[18] ^[19] ^[21] ^[22] ^[23] They showed that burns treated with silver sulfadiazine took longer to heal,

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and sometimes hurt more, than burns treated without it. People treated with cream medicated with silver may also have to have their dressings changed more often.

Further informations:

First aid for minor burns and scalds

Here are some dos and don'ts to help limit the damage after a burn or scald.

- Cool the burn or scald immediately, by putting it under a lukewarm, running tap for up to 20 minutes.^[9] You can also put it in a bowl of water, or use a spray or a sponge. Wet towels don't work as well, because they warm up when next to your skin. The water you use should be tepid, not too cold. Do not use ice.^[10] Ice could cause more damage to your skin.
- If you have burnt your arm or leg, keeping it raised will help prevent swelling.
- Take off any rings, bracelets, or watches near the burnt area. They could get too tight if the area swells up.
- Take off any clothing on the burnt area after you have cooled it down. But don't pull off clothing that is stuck to your skin.
- If you need to see a doctor, cover your burn before you go. Cling film works well. But don't wrap it around your arm or leg. It will get too tight if the area swells up. Lay the cling film on the burn and hold it in place.^[11]
- Don't cover your burn with anything sticky (such as a sticking plaster) or fluffy (such as cotton wool).
- Don't put any cream or ointment on your burn. These won't help your wound heal. And if you need medical attention they can stop your doctor seeing the wound clearly.
- Paracetamol or ibuprofen can help the pain of minor burns. Some over-the-counter medicines are only suitable for children over certain ages. Ask your pharmacist for advice, or check the packaging.
- Don't burst any blisters at home.
- Check that your tetanus vaccinations are up to date.

Always see a doctor if you or your child has a deep or big burn, or a burn on the face, hands, feet, or genital area.

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Glossary:

infection

You get an infection when bacteria, a fungus, or a virus get into a part of your body where it shouldn't be. For example, an infection in your nose and airways causes the common cold. An infection in your skin can cause rashes such as athlete's foot. The organisms that cause infections are so tiny that you can't see them without a microscope.

tetanus

Tetanus is a serious illness that causes muscles to tighten, most often in your neck and jaw. It is caused by bacteria, which usually enter your body through an injury. Another name for tetanus is lockjaw.

antibiotics

These medicines are used to help your immune system fight infection. There are a number of different types of antibiotics that work in different ways to get rid of bacteria, parasites, and other infectious agents. Antibiotics do not work against viruses.

randomised controlled trials

Randomised controlled trials are medical studies designed to test whether a treatment works. Patients are split into groups. One group is given the treatment being tested (for example, an antidepressant drug) while another group (called the comparison or control group) is given an alternative treatment. This could be a different type of drug or a dummy treatment (a placebo). Researchers then compare the effects of the different treatments.

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