

## Patient information from the BMJ Group

# Ringworm

In this section

[What is it?](#)

[What are the symptoms?](#)

[How is it diagnosed?](#)

[How common is it?](#)

[What treatments work?](#)

[What will happen?](#)

[Questions to ask](#)

## Ringworm

Ringworm is a skin infection. Despite the name, it has nothing to do with worms. It's caused by a fungus, a lot like the one that causes athlete's foot. Ringworm gets its name from the ring-shaped rash it sometimes causes.

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

## What is ringworm?

Ringworm is a skin infection. Despite the name, it's not actually caused by a worm. Ringworm happens when a fungus infects your skin, in a similar way to athlete's foot.

Fungal infections can affect any part of your skin. But the word 'ringworm' only tends to be used for fungal infections that affect either smooth patches of skin on your body or your scalp.

When ringworm affects a smooth patch of skin on your body, it can cause a ring-shaped rash. This is how it gets its name.



Ringworm can cause a distinctive, ring-shaped rash.

However, ringworm doesn't always cause a ring-shaped rash. For example, ringworm that affects your groin tends to cause a large patch of red skin around the crease at the top of your thighs. When ringworm affects your scalp it causes patches of hair loss. To read more, see [What are the symptoms of ringworm?](#)

The technical name for ringworm is a **tinea infection**. Here are the different types of ringworm you can get.

# Ringworm

- Ringworm of the body. Anyone can get this, although it's especially common in children. <sup>[1]</sup>
- Ringworm of the groin. This is sometimes called jock itch or dhotie itch. It's more common in men and teenage boys, especially if they play lots of sport.
- Ringworm of the scalp. Scalp ringworm is much more common in children than adults.
- Beard ringworm. Ringworm can affect the beard area in men.

Ringworm on the body or groin can often be cured with a cream to kill the fungus. Scalp or beard ringworm needs to be treated with tablets. More severe cases of body ringworm sometimes need treating with tablets too.

## What causes ringworm?

Several types of fungi can infect your skin and cause ringworm. You can pick up these fungi in a few different ways. <sup>[2]</sup>

- An infected person can pass the fungi on to someone else through close physical contact. Athletes who have a lot of skin-to-skin contact, such as wrestlers, can be at risk of getting ringworm.
- Fungi can be spread through touching personal items. For example, you could catch ringworm by sharing a comb, towels, or bedding. But it's not clear how easy it is to catch ringworm this way. It's probably harder to catch ringworm from objects than from direct contact.
- Fungal infections can spread between different parts of your body. Lots of men with groin ringworm also have athlete's foot. This may be because they transfer the infection after touching or scratching their feet.
- You can catch ringworm from contact with an infected animal. Dogs and cats can get ringworm, and so can some farm animals, such as cows. Ringworm on an animal often looks like a bald spot on their fur.
- You can pick up fungi from objects that have been contaminated by an animal with ringworm. Carpets or clothes with pet hair on them could cause ringworm in humans.
- Fungi that cause ringworm are sometimes found in soil. But it's very rare for people to get ringworm from soil.

Scalp ringworm almost always affects young children. Although ringworm can be spread from person to person, it's not usually recommended that children stay off school once

# Ringworm

they've started treatment.<sup>[2]</sup> Children will often have had scalp ringworm for a while before anyone notices. So, by the time a child is diagnosed, it's probably too late to be worth keeping them off school. Some doctors recommend an antifungal shampoo to help reduce the chances of a child passing on scalp ringworm to other children.

## Other fungal infections

Fungal infections similar to ringworm are given different names depending on where they affect your body. Here are some examples.

- When you get a fungal infection between your toes or on the soles of your feet, it's called athlete's foot. To read more, see [Athlete's foot](#).
- If you have a fingernail or toenail that's white and crumbly, it may be caused by fungi. To read more, see [Fungal nail infection](#).

## What are the symptoms of ringworm?

Ringworm causes a rash or patches of itchy, flaky skin. The rash is often ring-shaped, which is why people call this condition 'ringworm'.

The exact symptoms of ringworm can vary, depending on which part of your body is affected. Ringworm can cause a ring-shaped rash if it affects a smooth area of skin without much hair.<sup>[3]</sup> If ringworm affects your scalp, it causes patches of hair loss.

Fungal infections on other parts of your body, such as your nails or feet, belong to the same family of conditions as ringworm. But they don't usually cause a ring-shaped rash, and they tend to have a different name. For example, a fungal infection of the feet is usually called athlete's foot. To read more, see [What is ringworm?](#)

## Symptoms of body ringworm

Ringworm on your body starts as a red, scaly spot.<sup>[3]</sup> This spreads outwards over time. The centre of the rash may start to clear up, making a ring shape. The rash is often itchy.

You may get one patch of ringworm or several. They sometimes overlap to make a pattern like the petals of a flower.

## Symptoms of groin ringworm

Groin ringworm is much more common in men than in women, especially men who play a lot of sport. It causes a rash at the top of your thighs and around the skin creases of your groin.<sup>[4]</sup> There's usually a very obvious edge to the rash.<sup>[3]</sup>

In severe cases, groin ringworm can spread further down your thighs or on to your buttocks.<sup>[4]</sup> It doesn't tend to affect the skin on your penis or scrotum.

# Ringworm

## Symptoms of scalp ringworm

Ringworm of the scalp usually affects children. It's not always easy for doctors to spot, because it can cause several different types of symptoms. Here are some of the things to look out for. <sup>[5]</sup>

- Patches of hair loss. These tend to start small and grow slowly. They can be round or irregular in shape. The skin in these patches may look grey or be covered in black dots. The dots are hairs that have broken off.
- A flaky or scaly scalp. This may look like bad dandruff. However, hair oils can make flaking skin harder to spot.
- An itchy scalp.
- Red, **inflamed** areas on the scalp.

Severe ringworm of the scalp can turn into a spongy, inflamed area called a **kerion**. This may feel very tender. It's important to get treatment for a kerion, as there's a chance it could form a scar as it heals. <sup>[6]</sup> This can leave a permanent bald patch.

Babies and very young children often get a crust of oily, flaky skin on their scalp. This is a type of dermatitis called **cradle cap**. It's not ringworm, and doesn't usually need any treatment apart from gentle shampooing. To read more, see our information on [Dermatitis](#)

.

## Symptoms of beard ringworm

In men and older boys, ringworm can affect the beard area. This causes a pink or red rash, and sometimes spots with pus in them.

Among teenagers, acne is a more common cause of spots on the face. Acne can also affect adults. To read more, see [Acne](#) .

## How does my doctor diagnose ringworm?

Your doctor will start by examining the rash. Traditionally, doctors have also used an ultraviolet light to help diagnose ringworm. <sup>[6]</sup> That's because some types of fungi glow under ultraviolet light. However, some of the most common types of fungi don't, so your doctor may also want to order some laboratory tests.

Tests are likely to be used to diagnose scalp ringworm rather than body ringworm. <sup>[2]</sup> Scalp ringworm mainly affects children.

If your doctor orders tests, he or she will send some hairs or flakes of skin away to a laboratory. Your doctor may take a sample by scraping your child's scalp with the blunt side of a scalpel or by pulling out infected hairs with tweezers. However, ringworm can make the scalp very tender. So, your doctor might try running a small brush through your

# Ringworm

child's hair, which may be less uncomfortable. Hairs or flakes of skin stick to the bristles, and the brush can be sent off for tests.

Laboratory tests include checking samples under a microscope for signs of fungi or putting samples in a dish of agar jelly to see if fungi start growing.

Most doctors suggest making a start on treatment early, without waiting for the laboratory results to come back. This avoids wasting time, and your child can switch medicines later if the laboratory tests show he or she needs a different treatment.

## How common is ringworm?

Fungal skin infections are common.

Between 1 in 10 and 2 in 10 people get a fungal skin infection at some point in their lives. <sup>[4]</sup> However, this includes all fungal infections, such as nail infections and athlete's foot, not just ringworm.

Scalp ringworm mainly affects children under 10 years old. It's more common in large cities and in children from an Afro-Caribbean background. <sup>[5]</sup> <sup>[7]</sup> One study looked at children from 14 schools and nurseries in south London. Between 2 in 100 and 3 in 100 children had scalp ringworm.

Groin ringworm mainly affects men or teenage boys, especially men or boys who play lots of sport. <sup>[3]</sup> Beard ringworm only affects men and older boys.

## What treatments work for ringworm?

Ringworm is caused by a fungus. There are several drugs that can kill fungi or stop them growing. There's good research showing that these drugs can cure ringworm.

You can get antifungal drugs as creams, shampoos, and tablets. The type you need depends on where on your body the infection is, and sometimes on the type of fungus that's causing the infection.

- Antifungal creams cure most people with body ringworm. You can buy antifungal creams yourself from a pharmacy.
- For more severe ringworm infections, antifungal tablets work well. You need a doctor's prescription for these. Children with scalp ringworm always need to take tablets. Beard ringworm is also treated with tablets.
- There are several different kinds of antifungal tablets. Most of the research shows that they all work about as well as each other. But newer drugs, like terbinafine, tend to work more quickly than the older ones, such as griseofulvin.

# Ringworm

- Some antifungal tablets work better against particular types of fungi. Your doctor may order laboratory tests to find out what sort of fungi are causing your ringworm. Tests are needed most often for children with scalp ringworm.

## Which treatments work?

We've looked separately at ringworm that affects the body and ringworm that affects the scalp. They're treated in different ways.

- [What treatments work for ringworm on the body?](#) Body or groin ringworm is usually treated with antifungal creams. There are several kinds that all work well, but some act faster than others. [More...](#)
- [What treatments work for ringworm of the scalp?](#) Scalp ringworm usually affects children. It's treated with antifungal tablets, but a shampoo may also be used to help stop the infection spreading to other people. Beard ringworm is also treated with tablets, in a similar way to scalp ringworm. [More...](#)

There hasn't been much research on whether being careful about hygiene can help get rid of ringworm. But there are simple things you can try that might stop ringworm spreading, or prevent it coming back. To read more, see [How to stop ringworm spreading](#)

## Treatment Group 1

### What treatments work for ringworm on the body?

Ringworm that affects patches of skin on your body can normally be cured using an antifungal cream. But if large areas of skin are affected, your doctor may suggest taking tablets instead.

Creams are also used to treat groin ringworm (often called jock itch, or dhubie itch). Tablets can be used for severe groin ringworm, or ringworm that doesn't go away after using a cream.

### Key points about treating ringworm on the body

- There's good research showing that antifungal creams cure ringworm in most people who use them. Most of the research we found included some people with groin ringworm and some people with body ringworm.
- Depending on which cream you use, you'll need to use it once or twice every day, for between one week and four weeks.
- You can buy antifungal creams yourself from a pharmacist. See your doctor if these don't start to work after a week or two. See your doctor sooner if your rash is particularly severe or uncomfortable.

# Ringworm

- Severe ringworm, or ringworm that covers a large area of skin, may need treating with tablets. You'll need a doctor's prescription for these. There's good research showing that antifungal tablets can cure ringworm.
- Good hygiene may help stop ringworm spreading, or prevent it from coming back. But it's unlikely that hygiene on its own will get rid of ringworm. To read more, see [How to stop ringworm spreading](#) .

We've looked closely at the research and given a rating for each treatment, according to how well it works.

## Treatments for ringworm on the body

### Treatments that work

- [Creams that kill fungi](#)
- [Tablets that kill fungi](#)

### Treatments that need further study

- [Herbal remedies](#)

## Treatment Group 2

### What treatments work for ringworm of the scalp?

It's important for anyone with scalp ringworm to get treatment. The infection can cause permanent hair loss if it's not treated.

Scalp ringworm is most common in children under 10 years old. <sup>[3]</sup> Children are most likely to get it between the ages of 3 and 7. Teenagers and adults occasionally get scalp ringworm, but this is less common.

Men and older boys can get ringworm that affects their beard area. It's treated in a similar way to scalp ringworm.

### Key points about treating ringworm of the scalp

- There's good research showing that antifungal tablets can cure scalp ringworm.
- Older antifungal tablets, such as griseofulvin, take a long time to work. They may only be effective after several weeks or months. But newer drugs, such as terbinafine, work more quickly.
- The drug your doctor prescribes may depend on what type of fungi is causing the infection. How long you have treatment may also depend on the type of fungi. Your

# Ringworm

doctor can arrange laboratory tests to find out what kind of fungi is causing the infection.

- Some doctors recommend using an antifungal shampoo as well as tablets. The idea is to reduce the risk of spreading the infection to other people. But there hasn't been much research on this.
- Good hygiene is important to stop ringworm spreading. To read more, see [How to stop ringworm spreading](#) . Although ringworm can pass from person to person, doctors don't usually recommend keeping children off school while they're being treated for scalp ringworm.

We've looked closely at the research and ranked the treatments into categories, according to whether they work.

## Treatments for ringworm of the scalp

### Treatments that work

- [Tablets to kill fungi](#)

### Treatments that need further study

- [Shampoos to stop fungi spreading](#)
- [Corticosteroids for severe scalp ringworm](#)

## What will happen to me?

Ringworm can be cured with treatment. But without treatment, the infection can last a long time.

Ringworm doesn't usually go away on its own.<sup>[6]</sup> Although ringworm is unlikely to cause serious health problems, the infection could spread to other people if left untreated. It's also possible for the rash to get infected with **bacteria** , especially if you scratch hard enough to break the skin. Scratching can also spread ringworm from one part of your body to another.

If you have ringworm on your body or groin, you may be able to treat yourself with creams you can buy from a pharmacy. But if the rash doesn't improve after using a cream for a week or two, see your doctor. See your doctor sooner if your rash is particularly severe or uncomfortable.

Severe ringworm, or ringworm that affects the scalp or beard, needs treating with tablets.

<sup>[8]</sup> Scalp ringworm is especially common in children. It's important that your child gets



# Ringworm

treatment, as severe scalp ringworm can cause scars. A scar can leave a patch on your child's scalp where the hair doesn't grow back. <sup>[6]</sup>

Although ringworm can be spread from person to person, it's not usually recommended that children stay off school once they've started treatment. <sup>[2]</sup> Children will often have had ringworm for a while before anyone notices. So, by the time a child is diagnosed, it's probably too late to be worth keeping them off school.

Some doctors recommend an antifungal shampoo to help reduce the chances of passing on scalp ringworm to other children. Plasters can be used to cover small patches of ringworm on the body, which might help stop it spreading to other people.

---

## Treatments:

### Creams that kill fungi

In this section

There's good research showing that antifungal creams cure ringworm for most people.

Ringworm is caused by a fungus that grows on your skin. There are several antifungal creams that either kill the fungi or stop them growing. These creams work for ringworm of the body and for ringworm of the groin.

You can buy several different antifungal creams from a pharmacist. Here are some examples:

- clotrimazole (brand name Canesten AF cream)
- econazole (Ecostatin and Pevaryl)
- ketoconazole (Nizoral)
- miconazole (Daktarin)
- terbinafine (Lamisil).

Some of these antifungal creams are advertised as treatments for athlete's foot. You may also be able to use them for ringworm. Ask your pharmacist if you want to know whether a particular product is suitable for you.

Research shows that ringworm starts to clear up for about 8 in 10 people when they use an antifungal cream. <sup>[11] [12] [13] [14] [15] [16] [17]</sup>

Studies also use laboratory tests to see if all the fungi have been killed by treatment. In most studies, about 8 in 10 or 9 in 10 people were totally free from fungi after using an antifungal cream for a week or two.

# Ringworm

Most of the different creams seem to work about as well as each other.<sup>[11] [12] [13] [14]</sup>  
<sup>[15]</sup> But some, such as terbinafine, work faster than the others. This is an advantage, as you may only need to use the cream for a week or so. In one study, using terbinafine for one week worked at least as well as using ketoconazole for two weeks.<sup>[11]</sup>

It's important to follow the instructions that come with your treatment. You may need to apply the cream several times a day, and keep using it for a few days, or even weeks, after the rash has disappeared. If your rash doesn't start to improve after using a cream for a week or two, see your doctor.

You'll need to keep the infected patch of skin clean and dry. If you have ringworm of the groin, wear loose cotton underwear, such as boxer shorts, instead of tight briefs.<sup>[18]</sup>

Doctors sometimes recommend a cream that combines an antifungal drug and a steroid, such as hydrocortisone. (The full name for this type of steroid is corticosteroid. It's important to remember that corticosteroids are not the same as the anabolic steroids used by some athletes and bodybuilders.) Doctors can prescribe a cream containing miconazole and hydrocortisone (brand name Daktacort).

The idea is that the steroid helps with inflammation, and the antifungal drug gets rid of the infection. But steroids aren't recommended on their own for ringworm. They could make it worse, by hiding the symptoms without treating the fungal infection.<sup>[19]</sup>

If you have severe ringworm, or ringworm that affects a large area of your skin, your doctor may suggest [antifungal tablets](#) instead of a cream. But for most people, creams work just as well as tablets.<sup>[20]</sup>

You can get antifungal sprays and powders as well as creams. We didn't find any research on sprays or powders, so we can't be sure how well they work for ringworm. But powders probably aren't as good as creams.<sup>[21]</sup>

In studies, not many people got side effects from using an antifungal cream. But a few people got skin irritation.<sup>[13] [15]</sup>

---

## Tablets that kill fungi

In this section

If you have severe ringworm, or you've tried a cream for a while and it hasn't worked, your doctor may prescribe antifungal tablets. Antifungal tablets cure body ringworm for most people. These tablets are also the standard treatment for ringworm that affects your scalp. To read more, see [Treatments for ringworm of the scalp](#)

Antifungal tablets that can be used for ringworm include:

- griseofulvin
- fluconazole (Diflucan)

# Ringworm

- itraconazole (Sporanox)
- terbinafine (Lamisil).

In studies, between 6 in 10 and 9 in 10 people were completely cured after taking one of these medicines. <sup>[22]</sup> <sup>[23]</sup> <sup>[24]</sup> <sup>[25]</sup> The different drugs all seem to work about as well as each other.

With some antifungal tablets, your doctor may advise you to keep taking them for several weeks. <sup>[25]</sup> But research shows that some of these drugs can work quite quickly. One study found that taking itraconazole for one week worked just as well as taking it for two. <sup>[24]</sup> In another study, terbinafine cured 7 in 10 people who took it for just one week. <sup>[22]</sup>

Antifungal tablets can cause side effects. Some people feel sick or get stomach pain. <sup>[22]</sup> <sup>[23]</sup> Some people get headaches. In one study, about 4 in 100 people got side effects from fluconazole tablets. <sup>[20]</sup> This was about the same as for people who used an antifungal cream instead.

Antifungal tablets can cause liver damage, but this is rare. In a review of the research looking at more than 1,000 children taking antifungal tablets, there were no reports of serious liver problems. <sup>[8]</sup> In other studies, the number of people who had to stop taking antifungals because of liver problems ranged from about 1 in 100 to 1 in 1,000. <sup>[26]</sup>

However, if serious liver damage does happen, it can be dangerous. Doctors are careful about recommending antifungal tablets for anyone with liver problems. <sup>[27]</sup>

Doctors are also careful about prescribing antifungal drugs to women who are pregnant or breastfeeding. There's a chance these drugs could harm your baby. Griseofulvin isn't suitable for men who are planning to father children in the next six months. <sup>[27]</sup>

---

## Herbal remedies

In this section

Some people have tried essential oils, such as oil of bitter orange or tea tree oil, to treat fungal infections. The idea is that rubbing essential oils on the rash kills fungi. But there's almost no research looking at whether herbal remedies work for people with ringworm.

One poor-quality study looked at people with ringworm or athlete's foot. Oil of bitter orange seemed to clear up people's ringworm in a few weeks. <sup>[28]</sup>

But it's hard to trust the results of this study. One-quarter of people using the strongest concentration of orange oil stopped using it and dropped out of the study. And the study only looked at a small group of people.

Some people in the study said that oil of bitter orange irritated their skin.

# Ringworm

There have been rare reports of boys who haven't yet gone through puberty starting to grow breasts while using products containing tea tree oil and lavender oil.<sup>[29]</sup> But there have been so few cases, it's impossible to say whether these products really caused the problem.

Concentrated essential oils are meant to be used on your skin. You shouldn't swallow them unless they're very diluted.

---

## Tablets to kill fungi

In this section

Antifungal drugs work well for scalp ringworm.<sup>[8]</sup> In some studies, more than 9 in 10 children were cured after treatment. Across seven different studies looking at an antifungal drug called griseofulvin, the average cure rate was more than 7 in 10.<sup>[30]</sup>

Scalp ringworm has to be treated with antifungal tablets. Creams and shampoos don't work on their own. Fungi can grow inside individual hairs, and creams and shampoos don't get deep enough inside the hair to cure the infection. Tablets are also used to treat men with ringworm on their beard area.

Antifungal tablets can take one month to work, or even longer. Children sometimes find tablets difficult to take. You could try crushing them and sprinkling them onto food, but it's important to make sure your child still gets the full dose. Some antifungal drugs come as a liquid or syrup, which children may prefer to tablets.

Your doctor may take a sample of fungi by using a small brush or by scraping away some flakes of skin. These can be tested in a laboratory to see what type of fungi is causing the infection. This may affect the choice of antifungal drug. However, many doctors prefer to start people on treatment before the results are back from the laboratory. You, or your child, can always switch medicines later if needed.

There are several medicines that your doctor may prescribe. These include:

- griseofulvin
- fluconazole (Diflucan)
- itraconazole (Sporanox)
- terbinafine (Lamisil).

Griseofulvin used to be the standard treatment for scalp ringworm. However, it needs to be used for at least one month, and possibly for several months.<sup>[6]</sup> Newer drugs, such as terbinafine, probably don't work any better, but they work much more quickly.<sup>[8]</sup> So terbinafine is often the first choice of treatment for scalp ringworm.<sup>[2]</sup>

## Ringworm

Antifungal tablets can cause side effects, although these weren't common in most studies. Some people felt sick, and some got stomach pain, headaches, or a rash. <sup>[8]</sup>

Antifungal tablets can cause **liver** damage, but this is rare. In a review of research looking at more than 1,000 children taking antifungal tablets, there were no reports of serious liver problems. <sup>[8]</sup> In other studies, the number of people who had to stop taking antifungals because of liver problems ranged from about 1 in 100 to 1 in 1,000. <sup>[26]</sup>

However, if serious liver damage does happen, it can be dangerous. Doctors are careful about recommending antifungal tablets for anyone with liver problems. <sup>[27]</sup>

Doctors are also careful about prescribing antifungal drugs to women who are pregnant or breastfeeding. There's a chance these drugs could harm your baby. Griseofulvin isn't suitable for men who are planning to father children in the next six months. <sup>[27]</sup>

---

### Shampoos to stop fungi spreading

In this section

Some doctors recommend using an antifungal shampoo as well as antifungal tablets. <sup>[2]</sup> Although a shampoo won't cure scalp ringworm on its own, it may help reduce the amount of fungi on your child's scalp. This could help stop the infection spreading to other children. <sup>[9]</sup>

One type of antifungal shampoo contains a chemical called selenium sulphide. It's often sold as an anti-dandruff shampoo, and you can buy it yourself from a pharmacist. However, it's not recommended for children under 5 years old. <sup>[31]</sup> Brand names include Selsun and Head and Shoulders Intensive Treatment Dandruff Shampoo.

There isn't much research looking at antifungal shampoos as a treatment for scalp ringworm. One study looked at children who used a selenium sulphide shampoo as well as [griseofulvin tablets](#). Shampoo and tablets together got rid of fungi from children's scalps more quickly than tablets on their own. <sup>[6]</sup>

Side effects don't seem to be common with antifungal shampoos. But some people who use antifungal shampoos get skin irritation. <sup>[31]</sup> Try not to get selenium shampoo in your eyes, or if you're treating your child, your child's eyes. If you do, wash it off with plenty of water.

If you colour, bleach, straighten, or wave your hair, or your child's hair, try not to do these things around the same time as using a selenium shampoo. <sup>[31]</sup> Either do these things two days before or after using the shampoo, or rinse your hair, or your child's hair, very thoroughly with cold water before styling.

---

### Corticosteroids for severe scalp ringworm

# Ringworm

In this section

Severe scalp ringworm can cause a tender and inflamed area on the scalp, called a **kerion**. It's important to get a kerion treated, as otherwise it may form a scar. This could mean the hair doesn't grow back on that part of the scalp.

If you or your child has a kerion, it will be treated with [antifungal tablets](#) . As an extra treatment, some doctors also recommend creams or tablets with a corticosteroid (steroid for short). Steroids help reduce inflammation, so the idea is to make the scalp less tender and reduce the chance of scarring. It's important to remember that these steroids are not the same as the anabolic steroids used by some athletes and bodybuilders.

There hasn't been much research on steroids as a treatment for kerions. Some doctors recommend them, and others don't. One study tested steroid injections and found they didn't help a kerion heal any faster.<sup>[10]</sup> But it's possible that steroids could help with itching or discomfort while the kerion heals.

Steroids can sometimes cause serious side effects when they're used over long periods. However, side effects are less likely if steroids are only used for a short time, and even less likely with a cream rather than tablets.

About 1 in 20 people find that steroid tablets affect their mood.<sup>[32]</sup> This can happen a few days or weeks after you start treatment. You may be irritable, anxious, confused, or have trouble sleeping. Or you can get an unusually high mood (euphoria). Rarely, people get more serious side effects, such as thinking about suicide or seeing things that aren't really there. It's also possible to get these side effects when you stop taking steroids.

Possible side effects of steroid creams include thinning of your skin, slight changes of skin colour, and spots.<sup>[19]</sup>

Your doctor should explain the benefits and risks of steroids. If there are any worrying symptoms while you or your child are taking steroids, see a doctor straight away.

---

## Further informations:

### How to stop ringworm spreading

Below are some simple things you can try that may help to stop you spreading ringworm to anyone else. These things may also help to stop you transferring the infection from one part of your body to another, or getting ringworm again after treatment.

- Keep the skin around the infection clean and dry.
- If you have athlete's foot as well as ringworm, treat your athlete's foot too. Fungi from your feet can spread to other parts of your body and give you ringworm again. To read more, see [Athlete's foot](#) .

# Ringworm

- Ringworm can be itchy, but try not to scratch. Scratching can break the skin and make infections with bacteria more likely. Scratching can also cause the fungi to spread around your body on your fingers.
- Don't share towels or bedding.<sup>[9]</sup> Children with scalp ringworm shouldn't share hats, combs, or hairbrushes. To stop your child getting infected again after treatment, wash their combs and brushes with a disinfectant, such as diluted bleach.<sup>[10]</sup>
- Some doctors recommend covering smaller patches of body ringworm with a plaster. This might help stop the infection spreading to other people. It may also help if you're self-conscious about how the rash looks. Children might prefer to have the rash covered with a plaster if they feel embarrassed about going to school.
- Make sure you wash your towels, clothes, and bedding regularly. If you have groin ringworm, wear loose cotton underwear and change it every day.
- If you're a man with ringworm on your face or beard area, and you shave, use disposable razors and throw them away after using them. You need to do this until the rash has gone, or you could infect yourself again with fungi from an old razor.
- If you have several children and one has scalp ringworm, your doctor may suggest checking your other children to make sure they don't have ringworm too.<sup>[2]</sup> Doctors don't normally recommend keeping children off school once they've started treatment.
- If you think a pet has ringworm, take it to the vet.<sup>[2]</sup> Ringworm on animals usually looks like a bald patch on their fur, although animals can sometimes carry fungi without any obvious signs.<sup>[3]</sup>

## Glossary:

### inflammation

Inflammation is when your skin or some other part of your body becomes red, swollen, hot, and sore. Inflammation happens because your body is trying to protect you from germs, from something that's in your body and could harm you (like a splinter) or from things that cause allergies (these things are called allergens). Inflammation is one of the ways in which your body heals an infection or an injury.

### bacteria

Bacteria are tiny organisms. There are lots of different types. Some are harmful and can cause disease. But some bacteria live in your body without causing any harm.

### liver

Your liver is on the right side of your body, just below your ribcage. Your liver does several things in your body, including processing and storing nutrients from food, and breaking down chemicals, such as alcohol.

## Sources for the information on this leaflet:

1. U.S. National Library of Medicine. Medline Plus: tinea corporis. February 2014. Available at <http://www.nlm.nih.gov/medlineplus/ency/article/000877.htm> (accessed on 3 March 2014).

# Ringworm

2. Health Protection Agency. Tinea capitis in the United Kingdom: a report on its diagnosis, management and prevention. March 2007. Available at <http://www.hpa.org.uk/Publications/InfectiousDiseases/InfectionControl/0703TineacapitisintheUK> (accessed on 3 March 2014).
3. Shy R. Tinea corporis and tinea capitis. *Pediatrics in Review*. 2007; 28: 164-174.
4. Noble SL, Forbes RC, Stamm PL. Diagnosis and management of common tinea infections. *American Family Physician*. 1998; 58: 163-174.
5. Fuller LC, Child FJ, Midgley G, et al. Diagnosis and management of scalp ringworm. *BMJ*. 2003; 326: 539-541.
6. Abdel-Rahman SM, Nahata MC. Treatment of tinea capitis. *Annals of Pharmacotherapy*. 1997; 31: 338-348.
7. Hay RJ, Clayton YM, De Silva N, et al. Tinea capitis in south-east London: a new pattern of infection with public health implications. *British Journal of Dermatology*. 1996; 135: 955-958.
8. González U, Seaton T, Bergus G, et al. Systemic antifungal therapy for tinea capitis in children (Cochrane review). In: *The Cochrane Library*. Wiley, Chichester, UK.
9. Möhrenschrager M, Seidl HP, Ring J. Pediatric tinea capitis: recognition and management. *American Journal of Clinical Dermatology*. 2005; 6: 203-213.
10. Higgins EM, Fuller LC, Smith CH. Guidelines for the management of tinea capitis. *British Journal of Dermatology*. 2000; 143: 53-58.
11. Bonifaz A, Saul A. Comparative study between terbinafine 1% emulsion-gel versus ketoconazole 2% cream in tinea cruris and tinea corporis. *European Journal of Dermatology*. 2000; 10: 107-109.
12. Montero TRL, Lopez S, Rodriguez C, et al. Eberconazole 1% cream is an effective and safe alternative for dermatophytosis treatment: multicenter, randomized, double-blind, comparative trial with miconazole 2% cream. *International Journal of Dermatology*. 2006; 45: 600-604.
13. Singal A, Pandhi D, Agrawal S, et al. Comparative efficacy of topical 1% butenafine and 1% clotrimazole in tinea cruris and tinea corporis: a randomized, double-blind trial. *Journal of Dermatological Treatment*. 2005; 16: 331-335.
14. Lebwohl M, Elewski B, Eisen D, et al. Efficacy and safety of terbinafine 1% solution in the treatment of interdigital tinea pedis and tinea corporis or tinea cruris. *Cutis*. 2001; 67: 261-266.
15. Budimulja U. Terbinafine 1% cream vs. bifonazole 1% cream in the treatment of tinea cruris. *International Journal of Dermatology*. 1998; 37: 871-873.
16. Greer DLW, Weiss J, Rodriguez DA, et al. A randomized trial to assess once-daily topical treatment of tinea corporis with butenafine, a new antifungal agent. *Journal of the American Academy of Dermatology*. 1997; 37: 231-235.
17. van Heerden JS, Vismar HF. Tinea corporis/cruris: new treatment options. *Dermatology*. 1997; 194: 14-18.
18. Akinwale SO. Personal hygiene as an alternative to griseofulvin in the treatment of tinea cruris. *African Journal of Medical Sciences*. 2000; 29: 41.
19. British National Formulary. Topical corticosteroids. Section 13.4. British Medical Association and Royal Pharmaceutical Society of Great Britain. Also available at <http://bnf.org> (accessed on 3 March 2014).
20. Crevits B, Picoto A, Staberg B, et al. Comparison of efficacy and safety of oral fluconazole and topical clotrimazole in the treatment of tinea corporis, tinea cruris, tinea pedis, and cutaneous candidiasis. *Current Therapeutic Research, Clinical & Experimental*. 1998; 59: 503-510.
21. British National Formulary. Antifungal preparations. Section 13.10.2. British Medical Association and Royal Pharmaceutical Society of Great Britain. Also available at <http://bnf.org> (accessed on 3 March 2014).



# Ringworm

22. Decroix J, Fritsch P, Ptcoto A, et al. Short-term itraconazole versus terbinafine in the treatment of superficial dermatomycosis of the glabrous skin (tinea corporis or cruris). *Journal of Dermatology*. 1997; 7: 353-357.
23. Papini M, Difonzo EM, Cilli P, et al. Itraconazole versus fluconazole a double-blind comparison in tinea corporis. *Journal de Mycologie Medicale*. 1997; 7: 77-80.
24. Boonk W, de Geer D, de Kreek E, et al. Itraconazole in the treatment of tinea corporis and tinea cruris: comparison of two treatment schedules. *Mycoses*. 1998; 41: 509-514.
25. Faergemann J, Mork NJ, Haglund A, et al. A multicentre (double-blind) comparative study to assess the safety and efficacy of fluconazole and griseofulvin in the treatment of tinea corporis and tinea cruris. *British Journal of Dermatology*. 1997; 136: 575-577.
26. Chang CH, Young-Xu Y, Kurth T, et al. The safety of oral antifungal treatments for superficial dermatophytosis and onychomycosis: a meta-analysis. *American Journal of Medicine* 2007; 120: 791-798.
27. British National Formulary. Drugs used in fungal infections (antifungal drugs). Section 5.2. British Medical Association and Royal Pharmaceutical Society of Great Britain. Also available at <http://bnf.org> (accessed on 3 March 2014).
28. Martin KW, Ernst E. Herbal medicines for treatment of fungal infections: a systematic review of controlled clinical trials. *Mycoses*. 2004; 47: 87-92.
29. Henley DV, Lipson N, Korach KS, et al. Prepubertal gynecomastia linked to lavender and tea tree oils. *New England Journal of Medicine*. 2007; 356: 479-485.
30. Gupta AK, Cooper EA, Bowen JE, et al. Meta-analysis: griseofulvin efficacy in the treatment of tinea capitis. *Journal of Drugs in Dermatology*. 2008; 7: 369-372.
31. British National Formulary for Children. Shampoos and other preparations for scalp conditions. Section 13.9. BNF for children. British Medical Association, Royal Pharmaceutical Society of Great Britain, Royal College of Paediatrics and Child Health, Neonatal and Paediatric Pharmacists Group. Also available at <http://bnfc.org> (accessed on 3 March 2014).
32. Medicines and Healthcare Products Regulatory Agency. Drug safety update: latest advice for medicines users. Volume 1, issue 2, September 2007. Available at <http://www.mhra.gov.uk/Publications/Safetyguidance/DrugSafetyUpdate/CON2032234> (accessed on 3 March 2014).

---

This information is aimed at a UK patient audience. This information however does not replace medical advice. If you have a medical problem please see your doctor. Please see our full [Conditions of Use](#) for this content. For more information about this condition and sources of the information contained in this leaflet please visit the Best Health website, <http://besthealth.bmj.com>. These leaflets are reviewed annually.

