Psoriasis

If you get red, scaly patches on your skin you may have psoriasis. Some people have only a few patches that get better if they apply a cream. But some people get severe psoriasis that covers more of their body.

You can't catch psoriasis or give it to someone else. There's no cure, but treatment with light and medicine can help clear the patches from your skin.

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

What is psoriasis?

Psoriasis is a skin condition that causes scaly red patches on your skin. There's no cure for psoriasis, but there are treatments that can help.

To understand your psoriasis it helps to know a little about how your skin works.

Your skin is made up of several layers of cells. The top layer is called the epidermis. All the time, new skin cells form inside the epidermis. Then they slowly move to the outside of your skin. When the cells reach the surface of your skin they fall off. This turnover of skin cells usually happens over three to four weeks.

If you have psoriasis this turnover happens much faster. The new skin cells take only three or four days to reach the surface. So the extra cells on your skin’s surface build up and make flaky patches. Sometimes the extra cells cause bad dandruff on your scalp.

Psoriasis causes scaly red patches on your skin.
Psoriasis

We don't fully understand why this happens to some people. The genes you get from your parents may play a part. About one-third of people with psoriasis have a relative with the condition. [1]

About half of people with psoriasis have features on a particular chromosome that seem to be associated with psoriasis, although a specific gene for psoriasis has not yet been identified. [2]

But just having these genes may not trigger psoriasis. Doctors think that people with psoriasis genes start to get symptoms when their immune system over-reacts to something that happens to the skin. This could be a cut, or a scar from an operation, or a skin infection. Some medicines such as lithium salts (used to treat mania) and beta-blockers (used for heart conditions) may also trigger the condition.

This over-reaction by the immune system seems to cause the inflammation and the quick turnover of skin cells that cause psoriasis symptoms. That's why treatments for psoriasis include drugs that affect the immune system (often called biological drugs) as well as steroid creams that dampen down inflammation.

Some people with psoriasis find that their symptoms come and go. Some people get flare-ups, when their symptoms get worse. There's some evidence that flare-ups of psoriasis may be linked to: [1]

- Something stressful happening in your life
- Your habits, such as cigarette smoking
- Being overweight
- Not eating enough fruits and vegetables.

You can get different types of psoriasis. [3] Here we look only at chronic plaque psoriasis. We don't look at treatments for nail, scalp, or other kinds of psoriasis.

It's important to know that psoriasis is:

- Not infectious. This means you can't catch psoriasis and you can't pass it on to anyone else
- Not caused by poor skin hygiene
- Not a form of skin cancer.
What are the symptoms of psoriasis?

If you have psoriasis, you get red patches covered with silvery scales on your skin. The patches have clear edges that separate them from the surrounding skin. They may be itchy. Sometimes the patches can split and bleed.

Psoriasis often starts on the elbows or the knees. It sometimes doesn't spread from these areas.

You can get different types of psoriasis. Here we talk about the symptoms of chronic plaque psoriasis. We don't look at nail psoriasis, scalp psoriasis, or other kinds of psoriasis.

The patches of psoriasis are called plaques. They can be of different shapes and sizes. Sometimes you get psoriasis when your skin has been damaged. The patches that appear after a cut or scratch are often long and thin.

You might find your patches of psoriasis are itchy. Sometimes the patches can split, which makes them bleed or feel sore. But the main problem for many people is the way their skin looks.

If you think you might have psoriasis you should see your doctor.

Your doctor should be able to tell if you have psoriasis just by looking at the patches on your skin. You shouldn't need to have any special tests. But your doctor might scrape off samples of your skin to send to the laboratory for tests, to be sure that your condition is not caused by anything else.

Your skin patches will probably come and go. People are affected in different ways by psoriasis.

- Some people have only a couple of patches at a time.
- Some people have lots of patches all over their body.
- Some people go for months without getting patches.
- Some people get patches all the time.

You may also have some of the symptoms we list below.

- Changes to your nails. Your nails may look pitted or they may separate from the skin underneath. This happens to about one-third of people with psoriasis.
- Painful, stiff joints (arthritis). Doctors call this psoriatic arthropathy. It usually affects the joints at the ends of your fingers and toes. It happens to 1 in 10 people with psoriasis. We don't know why this happens.
Psoriasis

Many people with psoriasis are upset by the way their skin looks. If you feel self-conscious and unhappy about your appearance, you might stop taking part in social activities or you might avoid going out. This can make you depressed and stop you enjoying your life. But there are treatments that can help with psoriasis. To read more, see What treatments work for psoriasis?

People with psoriasis may also be at higher risk for developing heart disease, stroke, or narrowing of the arteries (peripheral arterial disease). Because of this your doctor may want to check for signs of these, for example by taking your blood pressure.

How common is psoriasis?

Psoriasis is a common condition.

Between 1 in 100 and 2 in 100 people have psoriasis. People from African and Asian backgrounds seem less likely to get psoriasis. But there hasn't been enough good-quality research to say for sure whether your ethnic group affects your chance of getting psoriasis.

What treatments work for psoriasis?

There's no cure for psoriasis. But it can be kept under control. With the right treatment, your skin should become less scaly, red, and itchy. Even if your psoriasis clears up with treatment it is likely to return. So you'll probably need treatment from time to time.

There's no treatment for psoriasis that works for everyone. Your treatment will depend on how bad your psoriasis is. Your doctor may suggest another treatment if the first one you try doesn't work well.

This information is only about the treatments for chronic plaque psoriasis. We don't describe the treatment of nail psoriasis or scalp psoriasis, or of other less common forms of psoriasis. To learn more about the different forms, see Types of psoriasis.

Key points about treating psoriasis

- Lots of creams and ointments are used to treat psoriasis. If you have mild psoriasis you may not need any other treatment.

- If creams and ointments don't clear your psoriasis your doctor may suggest a treatment using ultraviolet light. You'll probably have this treatment twice a week for several weeks. Some people find that sunlight helps.

- If your psoriasis is severe and not helped by creams, ointments, or light treatment you may need to take strong medicines. They usually come as injections or tablets. These medicines affect the way your immune system works.

- Some treatments for psoriasis work better if you use them together. There are lots of possible combinations of treatments.
Psoriasis

We've split the treatments for chronic plaque psoriasis into groups.

• **Creams and ointments**: These include moisturisers, vitamin D creams, and coal tar ointments. [More...](#)

• **Light treatment**: Ultraviolet lamps can be used to treat psoriasis. There are two types of ultraviolet light, called UVA and UVB. If you have treatment with UVA, you'll probably also take a drug called psoralen. It helps to make your skin more sensitive to light. Sunlight also seems to help some people with psoriasis. [More...](#)

• **Drug treatments**: Doctors can use several drugs to treat severe psoriasis. These drugs include methotrexate, ciclosporin (brand name Neoral), acitretin (Neotigason), etanercept (Enbrel), and infliximab (Remicade). [More...](#)

• **Combined treatments**: These include combining light treatments with drugs and ointments. [More...](#)

• **Other kinds of treatment**: These include acupuncture, water baths (balneotherapy), fish oil supplements, and psychotherapy. [More...](#)

**Treatment Group 1**

**Creams and ointments**

There are several ointments and creams that can be useful if you have psoriasis.

• Vitamin D creams and ointments work well. They are easy to use and less messy than some other treatments.

• A vitamin A gel called tazarotene can help to clear mild to moderate psoriasis. But it may irritate some of the normal skin surrounding your patches of psoriasis. Pregnant women shouldn't use tazarotene.

• Moisturising creams (emollients) moisturise dry skin and help keep it supple and moist. They may be all you need for very mild psoriasis.

• Dithranol cream can improve psoriasis in about six weeks. You have to apply this cream carefully so that it doesn't irritate the skin surrounding your patches. It can also stain your skin and clothing.

• Steroid creams can also help. But they can have side effects if you use them for a long time.

• Salicylic acid cream can loosen and 'lift' the scales of psoriasis from your skin or scalp.
Coal tar creams and ointments have been used to treat psoriasis for many years. The stronger preparations can be messy and stain your clothes.

We’ve looked closely at the research on creams and ointments for psoriasis and ranked these treatments into categories according to whether they work. You can use this information to talk to your doctor and decide which treatment is right for you.

**Creams and ointments for treating psoriasis**

**Treatments that work**
- Vitamin D creams
- Tazarotene

**Treatments that are likely to work**
- Moisturisers (emollients)
- Dithranol
- Salicylic acid

**Treatments that work, but whose harms may outweigh benefits**
- Steroid creams

**Treatments that need further study**
- Tar

**Treatment Group 2**

**Light treatment**

Light treatment can help with psoriasis. Options include sunlight and ultraviolet lamps.

- Sunlight seems to help some people with psoriasis. But if you’re going out in the sun you need to be careful not to get sunburn.

- Your doctor may suggest ultraviolet B (UVB) light treatment if creams and ointments haven’t worked. UVB light treatment can also be useful if you have lots of scattered patches of psoriasis that are difficult to treat with a cream.

- Doctors agree that taking a drug called psoralen to make your skin very sensitive to ultraviolet A (UVA) light treatment can clear severe psoriasis. But there’s a chance...
your skin will age faster if you have this treatment for a long time. It also increases your chance of getting a type of skin cancer called squamous cell cancer.

- Light treatments have sometimes been used along with water treatments, such as mineral or salt water baths. To read more, see Other kinds of treatment.

We've looked closely at the research on light treatments for psoriasis and found that they are likely to work. You can use the information below to talk to your doctor and decide which treatment is right for you.

**Light treatment for psoriasis**

**Treatments that are likely to work**

- Sunlight
- Ultraviolet B light
- Psoralen plus ultraviolet A light (PUVA)

**Treatment Group 3**

**Drugs for psoriasis**

There are several drugs that can help with severe psoriasis, but there's a risk of side effects.

- If you are a woman you mustn't take these drugs if you are pregnant or planning to get pregnant. They can harm your baby.
- Treatment with acitretin, ciclosporin, or methotrexate may help severe psoriasis. But there is a risk of serious side effects.
- New biological drugs can help severe psoriasis. They affect your immune system (your body's own system of defence) and reduce inflammation. These drugs include etanercept and infliximab.

We've looked closely at the research on drugs for psoriasis and ranked these treatments into categories according to whether they work. You can use this information to talk to your doctor and decide which treatment is right for you.

**Drug treatments for psoriasis**

**Treatments that work, but whose harms may outweigh benefits**

- Methotrexate
Psoriasis

- Ciclosporin
- Acitretin
- Adalimumab
- Etanercept
- Infliximab
- Ustekinumab

Treatments that need further study
- Leflunomide

Treatment Group 4

Combined treatments for psoriasis

Doctors sometimes recommend combinations of treatments for people with psoriasis.

- Applying dithranol cream each day and having ultraviolet B (UVB) light treatment can improve psoriasis. This is called the Ingram regimen.

- Taking the drug acitretin while you have light treatment is more likely to clear your psoriasis than having light treatment on its own.

- If you have Goeckerman treatment, you apply coal tar to your skin each day, then have UVB light treatment. But we don’t know how well these treatments work together.

We’ve looked closely at the research on combined treatments for psoriasis and ranked these treatments into categories according to whether they work. You can use this information to talk to your doctor and decide which treatment is right for you.

Combined treatments for psoriasis

Treatments that are likely to work
- Ingram treatment

Treatments that work, but whose harms may outweigh benefits
- PUVA plus acitretin
- Ultraviolet B light plus acitretin
Treatments that need further study

- Goekerman treatment

Treatment Group 5

Other kinds of treatment for psoriasis

Some people try other kinds of treatments or complementary therapies (such as acupuncture) to improve their skin.

We don't know how well these treatments work, because there has not been enough research. All these treatments need further study.

Other kinds of treatment for psoriasis

Treatments that need further study

- Acupuncture
- Water baths (balneotherapy)
- Fish oil supplements
- Psychotherapy

What will happen to me?

Mild psoriasis can be treated with creams and ointments. If you have more severe psoriasis, you will need to see a skin specialist (a dermatologist) for stronger treatment. Once you've started getting psoriasis, you'll probably carry on getting it.

You can get different types of psoriasis. Here we talk about chronic plaque psoriasis. We don't look at nail psoriasis, scalp psoriasis, or other kinds of psoriasis.

You may find your psoriasis comes and goes. It isn't dangerous, and chronic plaque psoriasis isn't likely to affect your general health. Most people can control their symptoms with treatment.

If you have mild psoriasis you may be able to control your symptoms with creams or ointments. You probably won’t need to see a specialist doctor (a dermatologist).

If you get more severe attacks of psoriasis you should see a dermatologist. They can recommend stronger treatments that may help if creams and ointments don't control your symptoms. Less than 1 in 100 people get severe psoriasis that needs to be treated in hospital. [10]
For most people with psoriasis the main problem is that they feel upset about the way their skin looks. If you are feeling bad about the way you look you might feel less confident. You may stop going out and find it hard to go to work or do everyday activities.

Having psoriasis, especially if it's severe, can stop people fully enjoying their lives.\[^{11}\]

Even though your psoriasis can make you feel isolated you should remember you're not alone. Hundreds of thousands of people have psoriasis. And many of them have the same feelings about it.

Although there isn't any cure for psoriasis it can be controlled. So you can live your life the way you want to. It may take time to find the right treatment for you, but it's worth the effort.

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**Treatments:**

**Vitamin D creams**

In this section

There's good evidence that creams containing vitamin D work well to clear up psoriasis. They can help you by reducing the itching, redness, and patches of scaly skin.\[^{12}\] They are likely to work at least as well as most other creams and ointments.

Vitamin D creams include:

- Calcipotriol (Dovonex)
- Calcitriol (Silkis)
- Tacalcitol (Curatoderm).

Calcipotriol and calcitriol seem to work about as well as each other.\[^{13}\] But calcipotriol seems to work better than tacalcitrol.\[^{14}\]

You apply calcipotriol and calcitriol twice a day. You apply tacalcitol once a day. You'll need a prescription from your doctor for these treatments.

Vitamin D creams are easy to use and less messy than some other creams and ointments. You can also use them long term, unlike some creams.\[^{15}\]

We found one summary of the research (a systematic review) and another smaller study that looked at vitamin D cream and other treatments that you put on your skin. The research found that vitamin D creams: \[^{12}\] \[^{16}\]

- Work well to clear up psoriasis
- Can stop your psoriasis coming back so soon
Psoriasis

- Work better than some other treatments such as coal tar
- Have few side effects.

But some people find the creams make their skin sore or itchy. You shouldn't apply vitamin D creams to your face unless your doctor recommends this.

Strong steroid creams probably work just as well as vitamin D creams, and they may be less likely to irritate the skin. And using the two together may work well in the short term. But you can't use strong steroid creams for a long time, because of side effects. One of the newer treatments, Dovobet, combines a strong steroid with calcipotriol. It is available as a gel and ointment.

Tazarotene

In this section

There's some good evidence that tazarotene (a vitamin A gel) can improve your psoriasis. It can reduce redness and scaly skin.

You apply tazarotene once a day. The brand name is Zorac. You'll need a prescription from your doctor for this treatment.

If you're a woman you shouldn't use tazarotene if you are pregnant or trying to become pregnant. Tazarotene may harm your baby.

We found lots of research on tazarotene. Here's what it found:

- Tazarotene improves mild to moderate psoriasis in the short term
- It works well for about half the people who use it
- It can work as well as a strong steroid cream
- Combining tazarotene with a steroid cream works better than using tazarotene on its own
- Using tazarotene with a steroid cream improves psoriasis in between 70 and 90 in 100 people.

Tazarotene does have side effects. Most people find the normal skin around the patches of psoriasis gets itchy or sore when they use this cream.

Moisturisers (emollients)
In this section

Emollients help to moisturise dry skin. They may be all you need for very mild psoriasis. Or you can use an emollient along with other treatments to keep your skin supple and moist.

We couldn’t find any studies to say whether moisturisers work. But most doctors agree that they can help reduce the itching and scaling, and soften the cracked areas of your skin. Because they soften the skin they help other creams and ointments to get into your skin. If your skin is very dry it may not absorb creams and ointments well.

There are many kinds of moisturising ointments and creams to put on your skin. They include ointments containing white soft paraffin, lanolin or petrolatum, and aqueous cream. Some brand names are Diprobase, E45 cream, Oilatum, and Unguentum M. You need to be careful when you use creams and ointments that contain white soft paraffin (including Diprobase), as these can make fabrics catch fire easily (for example, when they soak into dressings, bandages, clothes, and bedding). Don’t smoke or use a naked flame when using these products. Also, change your clothes and bedding regularly to reduce the risk of fire.

Some people find certain moisturisers make their skin feel sore or itchy. If that happens it's worth trying different ones until you find one that's right for you.

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**Dithranol**

In this section

Some good research has found that dithranol cream can improve psoriasis patches in about six weeks. Your doctor may recommend this treatment if you've tried a vitamin D cream but it hasn't helped or it irritated your skin.

Brand names for the cream include Dithrocream and Micanol. You'll need a prescription from your doctor for this treatment.

You put dithranol cream on your psoriasis patches for 15 to 60 minutes and then wash it off. You'll need to check with your doctor about how long you should keep it on your skin. Also, you need to apply this cream carefully to avoid soreness around the treated areas of your skin.

We found one summary of the research (a systematic review) that looked at three small studies on dithranol. The summary found that dithranol can improve your psoriasis if you apply it every day for several weeks.

Dithranol may stain your skin, clothes, bedding, and bath. The normal skin around the patches can get inflamed and sore. You should protect your hands with gloves when you put on dithranol, or wash your hands well afterwards.

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**Salicylic acid**

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In this section

Creams and ointments that contain salicylic acid can loosen and 'lift' the scales of psoriasis from your skin or scalp. But there hasn’t been much research to show whether they help.

There isn't much good research on salicylic acid for psoriasis. One small study looked at people who used salicylic acid for three weeks. There wasn’t much evidence that the cream helped. But doctors agree that salicylic acid can work. They sometimes use it with other treatments for psoriasis.

You might get some skin irritation if you use salicylic acid.

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Steroid creams

In this section

Some good research has found that using strong steroid creams can improve your psoriasis. But because of their side effects you can use steroid creams only for short periods.

Steroid creams work by making your skin less inflamed. You can buy low-dose steroid creams from a pharmacy. But it’s best to talk to your doctor about this treatment. They can give you advice on using steroids and prescribe stronger creams if you need them. You’ll need a prescription from your doctor for stronger creams. Steroids are drugs that help to reduce inflammation. They’re similar to chemicals your body makes to deal with inflammation. They’re not the same as the anabolic steroids that some bodybuilders use.

Brand names for the stronger creams include Betnovate, Dioderm, and Locoid. A newer treatment, Dovobet, combines a strong steroid with a vitamin D treatment (calcipotriol). It is available as a gel and ointment. Strong steroid creams should not be used on the face, genitals, or body creases (for example, on the inside of your arm where your elbow bends).

One summary of the research found that strong steroid creams can improve psoriasis. We also found one study that found that applying a steroid cream once a week can help to keep an area of your skin clear. Also, using a steroid cream together with another type of cream or ointment (for example, a vitamin D cream ) can work better than applying either treatment on its own. If you have psoriasis on your body or limbs your doctor will recommend trying a strong steroid plus a vitamin D cream as your first treatment.

Strong steroid creams should only be used for up to four weeks at a time. You then need to take a four-week break before using these creams again. During this time you may be offered another treatment, such as vitamin D or coal tar. Taking a break reduces the chance that you will get side effects from the steroid cream. A main concern is that the steroids will make your skin thinner. That's more likely to happen if you use a stronger cream and if you wear a dressing over a treated area of your skin. Also, if you use a
steroid cream continuously, your body won’t produce so much of its own natural steroids. So your psoriasis might flare up again when you stop using the cream.

Some people worry that steroid creams may become less effective the longer you use them. But we couldn't find any evidence to show this. [29]

**Tar**

In this section

Doctors have used coal tar ointments to treat psoriasis for many years. But there hasn't been much research to show that they work.

Coal tar ointments help to remove loose scales from patches of psoriasis. Stronger preparations can be messy and stain your clothing. But newer ones are easier and more pleasant to use.

Coal tar is often used with other treatments. There are various brands and types. They seem to work by making your skin less inflamed and by lifting the scales of psoriasis from your skin or scalp.

But there isn't much evidence from studies that coal tar can help. [12] [30] Studies have found that coal tar doesn't work as well as vitamin D creams. [12] But your doctor may recommend trying this treatment if a vitamin D cream hasn't helped or if it has irritated your skin. [15]

Some people complain that coal tar ointments smell unpleasant, and stain their skin and clothes. Some people also feel they get a burning feeling after using them. [30] But your doctor can prescribe the newer preparations that don't have these side effects.

**Sunlight**

In this section

Some people find that sunlight helps their psoriasis. There hasn't been much research on using sunlight as a treatment. [31] But many people find it works for them. Doctors often recommend it.

It's a good idea to talk to your doctor about how much sun you should be getting. Sunburn increases your chance of skin cancer, so you need to be careful in the sun. Getting a little sun regularly may be safer than spending long periods in the sun. And make sure you:

- Use sunscreen on the parts of your body that aren't affected by psoriasis
- Use a sunscreen that's at least factor 15. Choose one that says it's 'broad spectrum'. This means it blocks two kinds of ultraviolet light (UVA and UVB)

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- Apply sunscreen 15 minutes to half an hour before you go in the sun
- Re-apply your sunscreen at least every two hours, or more often if it's washed or sweated off
- Wear sunglasses to protect your eyes from the sun. Make sure the ones you buy have a label saying they offer 100 percent ultraviolet protection. Wraparound styles offer more protection.

You need to be especially careful with children's skin. Children have more delicate skin and burn more easily. People with fair skin are also more likely to burn in the sun.

Some drugs can make you more sensitive to sunlight and more likely to burn. Ask your doctor if any medicines you're taking could cause this side effect.

It may be hard to get much sun at some times of the year, depending on where you live. But doctors don't usually recommend using sunbeds in winter. That's because it's hard to measure how much light you're getting. Ultraviolet sunlamps can be used to treat psoriasis, but they're different to ordinary sunbeds.

Psoralen plus ultraviolet A light (PUVA)

In this section

PUVA is the term that is used for a combination of psoralen drugs and long-wavelength ultraviolet A (UVA) light. Doctors have found that PUVA works if you have severe psoriasis. But there isn't much evidence to prove that it works.

Psoralen drugs make your skin highly sensitive to UVA light. Psoralens are chemicals found naturally in more than 30 plants, including lemons and celery. But the amounts in these plants are too small to treat psoriasis.

There are several ways of taking psoralen drugs.

- You'll probably take a psoralen drug in a capsule two hours before the treatment with UVA light.
- You can also add psoralen to your bath water. You need to soak for about 10 to 15 minutes before exposure to UVA.
- You can apply psoralen gel or cream to small areas of psoriasis, such as on your hands or feet, about half an hour before light treatment.

You have the UVA treatment in a hospital dermatology department. You'll be asked to enter a box like a shower cubicle. This contains the ultraviolet light lamps. Your light treatment sessions will gradually increase from a few minutes to a maximum of half an
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Doctors usually suggest people have this treatment twice a week for five to eight weeks. You won’t need to stay in hospital overnight.

There are some things you need to be aware of if you’re having PUVA treatment.

• You shouldn’t use perfumes or aftershaves on treatment days because they can cause a skin reaction with the UVA light.

• Some medicines can also make your skin more sensitive to light, so you need to let your doctor or nurse know about any other drugs you are taking.

If you’re a woman you shouldn’t get pregnant while having PUVA treatment. There’s a risk your baby could be harmed.

We didn’t find any studies that compared people having PUVA for their psoriasis with people having no treatment. But two good-quality studies (randomised controlled trials) found that higher doses of psoralen work better to clear psoriasis than lower doses. Also, psoralen baths help clear psoriasis just as well as psoralen capsules.

One study found that people who use PUVA were more likely to be clear of psoriasis compared with people having UVB light treatment. But not all studies find this. We’re not sure which treatment works best.

One large study found that psoriasis is less likely to flare up again if you continue to have treatment every couple of weeks, even when your skin is clear. But doctors usually prefer to stop PUVA treatment once the psoriasis has cleared. There’s a risk of side effects, especially if you have PUVA for a long time.

• Your skin may age faster than it normally would.

• You may get a type of skin cancer called squamous cell cancer.

One study found that one-quarter of people exposed to 300 or more PUVA treatments had this type of cancer. People with fairer skin were most at risk. Another study found that people who had psoralen baths instead of taking psoralen capsules didn’t have a bigger risk of skin cancer.

Some research suggests that UVB treatment may carry a lower risk of skin cancer than PUVA treatment. So your doctor will probably recommend trying UVB treatment first.

One study looked at people using ultraviolet A light on its own, without taking psoralen. It found that ultraviolet A might help a little on its own. But there hasn’t been enough research to be sure.
Ultraviolet B light

In this section

Doctors agree that ultraviolet B (UVB) light improves psoriasis even though there hasn't been much research. UVB light also occurs naturally in the sun's rays.

Your doctor may suggest UVB treatment if:

- Creams and ointments haven't worked for you.
- You have lots of scattered patches that are difficult to treat with creams.

You have UVB treatment as an outpatient in a hospital dermatology department. You have the treatment in a machine with fluorescent tubes. They look like those used in sunbeds. But the type of light is different from the light used in sunbeds. You can have UVB treatment two or three times a week. Treatment may work more quickly if you have it three times a week. [8]

Each treatment takes only a few minutes. UVB treatment is sometimes combined with other treatments, such as creams.

We couldn't find much good research that compared having UVB treatment with not having any treatment for psoriasis. But we found one good-quality study (a randomised controlled trial) that showed that having UVB treatment three times a week may clear psoriasis faster than having UVB treatment twice weekly. [39]

One study suggests UVB treatment doesn't work as well as PUVA treatment for clearing psoriasis patches. [34] But not all studies show this. We don't really know which works best.

Some research suggests that carrying on with UVB treatment over several months may make it less likely that your symptoms will come back. [40] [41] But doctors don't usually recommend continuing this treatment once the psoriasis has cleared.

You may get side effects with UVB treatment that last a short time. Quite often, people's skin gets red and inflamed after treatment. This is more likely to happen with UVB treatment than with PUVA treatment. [39]

One summary of the research (a systematic review) had shown that UVB light may age your skin and slightly increase your chances of getting skin cancer. [42] But a more recent summary looked at people who'd had UVB treatment 25 years previously. [43] They were no more likely to have skin cancer than people who hadn't had the treatment.

Some research suggests that UVB treatment may carry a lower risk of skin cancer than PUVA treatment. So your doctor will probably recommend trying UVB treatment first. [15]
Etanercept

Some research has shown that this newer medicine can improve your psoriasis. And that improvement may help you enjoy life more.

Etanercept is a drug that works on your immune system. It blocks chemicals called cytokines that produce inflammation in your body. This can help your psoriasis. Etanercept is sometimes called a biological drug. The brand name is Enbrel.

You inject etanercept under your skin twice weekly. A nurse or doctor will teach you how to do this.

We found several good-quality studies (called randomised controlled trials) that looked at nearly 3,000 people in total. Some people in the studies had injections of etanercept every week for 10 to 24 weeks. Other people had dummy (placebo) injections. The studies found that about half of the people using etanercept improved, with much less of their body affected by psoriasis. These people also said they felt more able to enjoy life.

In the UK, etanercept is given only to:

- Adults with severe psoriasis who can't have light treatment or take other drugs such as acitretin, ciclosporin, and methotrexate
- Adults who have tried these other treatments and found they haven't worked.

Etanercept can cause side effects. About 1 in 10 people get a skin reaction where they inject the drug. Studies of people who took this drug for other conditions (such as rheumatoid arthritis and Crohn's disease) suggest that the treatment may make you more likely to get chest infections.

Medicines such as etanercept that affect your immune system can cause serious side effects. But this is quite rare. These serious side effects include severe infections, nervous system diseases, blood problems, heart problems, and allergic reactions. We need more research to know how safe etanercept is in the long term.

If you have had tuberculosis in the past, then there is a slight risk that drugs like etanercept will make your tuberculosis come back. Across the world, tuberculosis has been reported in about 1 in 10,000 people taking this treatment.

Your doctor may need to check you regularly to make sure you are not getting any serious side effects from this treatment.

Infliximab
In this section

Some research has found that infliximab can improve your psoriasis. And that improvement may help you enjoy life more.

Infliximab blocks chemicals called cytokines, which are produced by the immune system. Cytokines cause inflammation in your body. Blocking the inflammation may help your psoriasis. Infliximab is sometimes called a biological drug. Its brand name is Remicade.

The National Institute for Health and Care Excellence (NICE), the body that says which treatments should be available in the NHS, says that infliximab should only be used in adults whose psoriasis is very bad or has not been helped by other drugs or light treatments. If your psoriasis has not improved noticeably after 10 weeks then your treatment should stop.\[55\]

You take infliximab through a drip into a vein (an IV or intravenous infusion). It takes about two hours for you to get the full dose of infliximab through the drip. Afterwards you'll probably be asked to wait for a while before going home, to make sure you don't get an allergic reaction. You'll be given one infusion at the start of your treatment, another one after two weeks, then one more after six weeks. After that you'll probably have an infusion every eight weeks.

We found three good-quality studies (called randomised controlled trials) of about 650 people with severe psoriasis.\[56\] \[57\] \[58\] \[59\] People in two of the studies had treatment for 10 weeks. The third study lasted 24 weeks. Here's what the studies found:

- At least three-quarters of people noticed some improvement after being given infliximab
- The people found much less of their body was affected by psoriasis after treatment
- The people also said they enjoyed their life more.

You may get side effects from treatment with infliximab. It's quite common to get a headache.\[56\] \[57\] Some people taking infliximab get more serious side effects, including skin cancer.

Infliximab is also used for other conditions, including rheumatoid arthritis and Crohn's disease. In studies, some people with these conditions got serious problems when taking infliximab, including cancer, severe infections, and a disease affecting the immune system called lupus.\[60\] \[61\]

We need more research to find out about the risk of rare side effects and how safe infliximab is in the long run.

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**Methotrexate**

In this section

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Methotrexate is often the first drug treatment people are offered. The research shows methotrexate may help if you have severe psoriasis. But there is a chance of serious side effects. You need to have blood tests to check for signs of liver damage if you take this treatment for a long time.

Methotrexate works by slowing down the turnover of your skin cells that cause patches of psoriasis. (To learn more about turnover of your skin cells, see What is psoriasis?) This drug also reduces inflammation by altering the way your immune system works.

Methotrexate is usually taken as a tablet, once a week. Some people take it for years. We found one good-quality study (a randomised controlled trial) that found that people who took methotrexate had less psoriasis. Another study found that 6 in 10 people had much less psoriasis after 16 weeks of treatment. And 4 in 10 people were completely clear of psoriasis. But both studies were small so their results might not be reliable.

If you are a woman you mustn't get pregnant if you're taking methotrexate or for six months after you stop taking it. And if you are a man you shouldn't father a child while you are taking this drug, or for six months afterwards. It could harm your baby.

There's also a chance of other serious side effects. Methotrexate can affect your bone marrow, which is where blood cells are made. This can mean you get anaemia, a condition in which you don't produce enough red blood cells. You may also be more likely to get infections and bleeding. So you will need regular blood checks at first.

Methotrexate can also damage your liver if you take it for a long time. So people using methotrexate should have regular blood tests to check for signs of liver damage. And your doctor will advise you not to drink too much alcohol. But you're not likely to get serious liver disease if you are taking a low dose of methotrexate.

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**Ciclosporin**

In this section

There's good evidence that ciclosporin can clear psoriasis within a few weeks. But you might get kidney problems and high blood pressure if you take it for a long time.

Ciclosporin is also used for patients who've had organ transplants. It can help stop the body rejecting the donated organ. It works on your immune system. It can reduce the inflammation you get with psoriasis.

If you are a woman you mustn't get pregnant while you are taking this drug. It could harm your baby.

You take ciclosporin as capsules or as a liquid. The brand name is Neoral.
We found one summary of the research (a systematic review) that looked at 289 people with bad psoriasis. It found that taking ciclosporin can clear psoriasis. Continuing to take it every day may keep your skin clear of psoriasis patches.

Two good-quality studies (randomised controlled trials) found that a higher dose of ciclosporin worked best. Among people who took a higher dose for their weight, about 40 in 100 had a smaller area of psoriasis. But only 20 in 100 had the same improvement if they took a lower dose. Doctors usually work out the dose based on how much you weigh.

There's a chance of serious side effects if you take ciclosporin, especially if you take higher doses.

One study found that people who take ciclosporin have a greater chance of getting a type of skin cancer called squamous cell skin cancer. People had taken the drug for two years on average. About 2 in 100 people got this kind of cancer within five years of taking ciclosporin. Squamous cell skin cancer is a serious condition, but it isn't the most dangerous kind of skin cancer. Melanoma is more serious. The study didn't show a higher risk of melanoma for people taking ciclosporin.

Other side effects of ciclosporin include kidney problems and high blood pressure.

You're probably more at risk of side effects if you take this drug for a long time. In one study:

- 14 in 100 people dropped out of the study because of side effects after taking ciclosporin for a year
- 41 in 100 people dropped out of the study because of side effects after taking ciclosporin for four years.

Many other medicines can interfere with ciclosporin. They may stop it working so well or increase side effects. So it's important to tell your doctor about all the medicines you are taking, including any you've bought yourself from a pharmacy.

**Ustekinumab**

In this section

Ustekinumab is a drug that affects your immune system. It's given as injections just under your skin. The brand name is Stelara.

When you start treatment with ustekinumab you'll have one injection, followed by another a month later. After that you'll have injections every three months.
Psoriasis

The National Institute for Health and Care Excellence (NICE), which decides whether particular treatments should be offered by the NHS, says people should only take ustekinumab if:

- They have severe psoriasis
- Other treatments haven’t worked or can’t be used because of side effects. Other treatments you might be offered first are ciclosporin, methotrexate, and PUVA (the drug psoralen plus UV light treatment).

NICE recommends that treatment be stopped if someone hasn’t improved after the first 16 weeks.

Research has found that ustekinumab reduces the symptoms of psoriasis. Symptoms improved by at least 75 percent for between 60 and 70 in 100 people who took it. Hardly anyone improved by the same amount if they took a dummy treatment (a placebo).

One large study also found that ustekinumab worked better than etanercept, with more people seeing their psoriasis improve by at least 75 percent with ustekinumab.

Ustekinumab stops your immune system from working as strongly, so could increase your risk of getting infections. In studies, more than 10 in 100 people got symptoms of a cough or cold. It's also possible you could get a serious infection, such as tuberculosis.

Drugs that affect your immune system can increase the risk of some kinds of cancer. There hasn't been enough long-term research on ustekinumab yet, so it's difficult to say whether it could affect your chances of getting cancer.

Some people get irritation at the spot where they have the injection.

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**Adalimumab**

In this section

Adalimumab is a newer treatment for psoriasis. It comes as an injection that's usually given every two weeks. The brand name is Humira.

The National Institute for Health and Care Excellence (NICE), which advises the government on health care, has issued some guidance about who should be treated with adalimumab. NICE says people should only use this drug if:

- They have severe psoriasis and
- They have not been helped by treatments including ciclosporin, methotrexate, and PUVA, or have been unable to use them because of side effects.
Psoriasis

Your treatment will be stopped if you’ve seen no improvement in your symptoms after 16 weeks.\textsuperscript{[70]}

If you’re a woman, it’s important that you don’t get pregnant while you’re taking this drug and for at least five months after your treatment finishes.\textsuperscript{[71]}

Two studies have found that after 12 to 16 weeks of treatment, adalimumab helped skin symptoms improve by at least three-quarters for between 70 and 80 in 100 people. Less than 10 in 100 people who took a dummy treatment (a placebo) were helped in this way.\textsuperscript{[72]} \textsuperscript{[73]}

Adalimumab can cause redness or swelling where you have the injection. It can also cause headaches, rashes, and nausea. You might also get a blocked nose, diarrhoea, vomiting, and other stomach problems, as well as heart problems.\textsuperscript{[71]}

Sometimes adalimumab can also cause more serious side effects. It affects the way your immune system works. So you may be more likely to get infections, which can be severe.\textsuperscript{[71]} You’ll need to be checked for infections before and after treatment.

The US Food and Drug Administration (FDA), which checks the safety of drugs in the US, says doctors should warn patients that they may get serious fungal infections if they take adalimumab.\textsuperscript{[74]}

There have been reports that adalimumab may be linked to a very rare type of blood cancer called hepatosplenic T-cell lymphoma. But we don’t know for sure that this medicine caused the cases. Two of the three people who got the illness were taking other types of medicines as well.\textsuperscript{[75]}

\underline{Acitretin}

In this section

Some research has found that acitretin can improve severe psoriasis. But there’s a chance of serious side effects with this drug.

You take acitretin daily as capsules, either on its own or combined with another treatment, such as ultraviolet A (UVA) light treatment. The brand name is Neotigason.

If you’re a woman, you mustn’t get pregnant while you’re taking acitretin, or for two years after you stop taking it.\textsuperscript{[76]} Acitretin can cause severe damage to your baby.

Studies show that people taking lower doses of the drug didn't improve much. But almost two-thirds of those given higher doses of acitretin improved. Only one-quarter of those people who took a dummy drug (a placebo) got better.
Psoriasis

We found one big summary of the research (a systematic review) that looked at a group of drugs called retinoids, including acitretin. The summary found some evidence that acitretin may improve severe psoriasis.

But as many as 20 in 100 people stop taking retinoid drugs because of side effects. Most people get dry skin, eyes, and face.

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**Leflunomide**

In this section

This treatment is still experimental for psoriasis. We need more research to know how well it works and how safe it is.

Leflunomide is a drug that's usually used to treat joint pain or stiffness (arthritis) that's caused by psoriasis. One study looked at whether it can also help with the skin problems caused by psoriasis. But it isn't usually used in this way.

Leflunomide comes as tablets. Its brand name is Arava.

If you're a woman, it's important that you don't get pregnant while you're taking this treatment and for two years afterwards. It could harm your baby. If you're a man, you shouldn't father children while you're taking leflunomide. And you need to wait three months after you stop taking it before you try to get your partner pregnant. If you're taking leflunomide and you want to have children, talk to your doctor.

One study looked at 190 people who took leflunomide for 24 weeks. Skin symptoms got better by at least three-quarters in 17 in 100 people. But only 8 in 100 people who took a dummy treatment (a placebo) had the same improvement.

Treatment with leflunomide has side effects. In the same study, one-quarter of the people taking it got diarrhoea. And some people got liver problems or felt very tired.

Leflunomide can also cause some serious side effects. It affects the way your immune system works. So you may be more likely to get infections, which can be severe.

Rarely, this treatment can cause dangerous lung or liver damage. You'll need regular checks to make sure that treatment doesn't cause problems with your blood or your liver. And if you have trouble breathing or a cough that gets worse, see your doctor straight away.

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**Ingram treatment**

In this section
Psoriasis

The Ingram treatment combines dithranol cream and ultraviolet B (UVB) light treatment. It sometimes uses coal tar baths too. Doctors agree that it can improve psoriasis even though there hasn't been much good-quality research on this combination of treatments.

We found three small, poor-quality studies. They don't give much information about how well this combined treatment works.

The studies also didn't tell us about side effects. But we do know that dithranol, tar, and UVB light can have side effects when they're used on their own.

PUVA plus acitretin

In this section

Combining the drug acitretin with psoralen and ultraviolet A light treatment is more likely to clear your psoriasis than having these treatments on their own. But there are side effects.

Psoralen is a drug that makes your skin more sensitive to the light treatment. Having psoralen with ultraviolet A is sometimes called PUVA.

Acitretin is a drug that can help psoriasis, but it has side effects. The brand name for acitretin is Neotigason.

If you're a woman and you take acitretin when you're pregnant, it can harm your baby. You need to wait at least two years after you stop taking this drug before you try to get pregnant.

We found one summary of the research (a systematic review). It showed that using an acitretin drug with PUVA light treatment works better than using PUVA on its own. Your psoriasis is more likely to clear with this combined treatment.

The summary didn't tell us about the side effects of this combined treatment. But we do know that treatment with either acitretin or PUVA on its own has risks.

Ultraviolet B light plus acitretin

In this section

Taking the drug acitretin at the same time as having ultraviolet B (UVB) light treatment seems to work better than having either of these treatments on their own. But there are side effects.

You have UVB treatment using a machine that's a bit like a sunbed.

Acitretin is a drug that can help psoriasis, but it has side effects. The brand name for acitretin is Neotigason.
If you're a woman and you take acitretin when you're pregnant, it can harm your baby. You need to wait at least two years after you stop taking this drug before you try to get pregnant. [76]

One summary of the research (a systematic review) found that UVB treatment and acitretin worked better together than on their own. [64] One study found that more than half of the people who had both treatments saw a big improvement in their psoriasis. Less than one-quarter of people who just had light treatment had the same improvement.

The research on using these treatments together didn't mention any side effects. But acitretin and UVB light can have side effects when they're used on their own.

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**Goeckerman treatment**

In this section

Goeckerman treatment involves applying coal tar each day, then having ultraviolet B (UVB) light treatment. But we don't know if it works. The research doesn't tell us.

We found two small good-quality studies (randomised controlled trials) comparing Goeckerman treatment with UVB light treatment on its own. [64] [79] There was no evidence that adding coal tar to UVB treatment worked better. But we need more research to know for certain.

The studies don't tell us about side effects. But we do know that treatment with either coal tar or UVB light on its own has some risks.

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**Acupuncture**

In this section

Some people think acupuncture can help psoriasis. But there's not enough evidence to say.

Acupuncturists insert thin, sterile needles through the skin at certain points on the body. Traditional acupuncturists believe that this improves the flow of energy around the body. Some modern doctors think that putting needles in the skin could encourage the release of natural chemicals that block pain and help you feel relaxed.

We found one small, good-quality study (a randomised controlled trial) of 56 people with mild to moderate psoriasis. [80] But acupuncture didn't have any effect on their psoriasis.

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**Water baths (balneotherapy)**

In this section
Water treatments for psoriasis include baths using salt water, water from hot springs, or sea water. Water treatments are sometimes called **balneotherapy**.

Some spas offer water treatments for psoriasis, but these can be expensive. You can buy bath salts to use at home, but we didn't find any research on these.

One study looked at 50 people who took baths in natural hot springs (thermal baths). The water from these springs contained several minerals, including magnesium and calcium. Two-thirds of the people having thermal baths had less psoriasis three months later. Only 10 in 100 people who bathed in tap water improved. But this was a small study. We need more research to know whether thermal baths are any better than tap water.

Some research has looked at combining water therapy with **light treatments**. But most of this research wasn't done very well, or looked at just a few people. So we can't say whether these treatments are any better together than they are individually.

Most of the research didn't mention side effects from thermal baths. In one study, some people found that the baths irritated their skin.

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**Fish oil supplements**

In this section

There hasn't been enough research to say if taking fish oil supplements reduces psoriasis. We don't know if taking extra fish oil has any side effects.

We found six good-quality studies (called **randomised controlled trials**) of people with psoriasis who took fish oil in capsules or from a spoon. But the results were unclear. Most of the studies showed that taking the supplements didn't help.

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**Psychotherapy**

In this section

Psoriasis may be linked to stressful things that happen in your life. **Psychotherapy** might help with these underlying problems. But we couldn't find any good studies to show if psychotherapy improves psoriasis.

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**Further informations:**

**Types of psoriasis**

You can get different types of psoriasis. We've given the main ones here.
Psoriasis

- **Chronic plaque psoriasis.** This is the most common type of psoriasis. You get flaky red patches on your skin. Doctors call them plaques. The plaques can appear anywhere on your skin. But they're most common on the knees, elbows, lower back, and scalp. They don't often appear on your face.

- **Nail psoriasis.** This happens to about half the people with chronic plaque psoriasis. But you can also get nail psoriasis without the skin rash. Pinhead-sized pits form in your nails. Your nail might also lift away from the skin underneath. This makes your nail look discoloured.

- **Scalp psoriasis.** You can get this on its own or with psoriasis on other parts of your body. It looks like bad dandruff. You may have thick patches of flaky skin.

- **Guttate psoriasis.** This type is most common in children. It sometimes starts after a sore throat. The patches appear over most of the body but are usually small: less than 1 centimetre (one-third of an inch) across. They mostly fade away after a few weeks. If you've had guttate psoriasis, you may never get another attack. But you have a higher chance of getting chronic plaque psoriasis later on in life.

- **Erythrodermic psoriasis.** This type is rare. Your skin gets red all over.

- **Pustular psoriasis.** There are two main sorts. The more common type appears as red areas studded with pus spots. The spots happen on the palms of your hands and soles of your feet. The less common type of pustular psoriasis can affect any part of your skin. It's also more severe.

**Glossary:**

- **genes**
  Your genes are the parts of your cells that contain instructions for how your body works. Genes are found on chromosomes, structures that sit in the nucleus at the middle of each of your cells. You have 23 pairs of chromosomes in your normal cells, each of which has thousands of genes. You get one set of chromosomes, and all of the genes that are on them, from each of your parents.

- **mania**
  If you have mania, you feel extremely happy, excited or irritable for no reason. It can be a symptom of some mental illnesses. You may get insomnia, your energy levels may be unusually high and you may behave in inappropriate ways.

- **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.

- **immune system**
  Your immune system is made up of the parts of your body that fight infection. When bacteria or viruses get into your body, it’s your immune system that kills them. Antibodies and white blood cells are part of your immune system. They travel in your blood and attack bacteria, viruses and other things that could damage your body.

- **arthritis**
  Arthritis is when your joints become inflamed, making them stiff and painful. There are different kinds of arthritis. Osteoarthritis is the most common type. It happens when the cartilage at the end of your bones becomes damaged and then starts to grow abnormally. Rheumatoid arthritis happens because your immune system attacks the lining of your joints.

- **depression**
Depression is a mental illness in which your mood is low and you feel sad most of the time. It can range from a mild illness through to a severe one in which you lose interest in life and may be suicidal.

**heart disease**

You get heart disease when your heart isn't able to pump blood as well as it should. This can happen for a variety of reasons.

**stroke**

You have a stroke when the blood supply to a part of your brain is cut off. This damages your brain and can cause symptoms like weakness or numbness on one side of your body. You may also find it hard to speak if you've had a stroke.

**systematic reviews**

A systematic review is a thorough look through published research on a particular topic. Only studies that have been carried out to a high standard are included. A systematic review may or may not include a meta-analysis, which is when the results from individual studies are put together.

**steroids**

Steroids are a type of chemical. Your body naturally produces steroids, which play a part in many of its processes. For example, steroids are involved in how your immune system, reproductive system and metabolism work. Steroids can also be given as medicines and are used for a number of different conditions: including asthma, rheumatoid arthritis and eczema. Corticosteroids are not the same as the steroids used by some body builders and athletes. Those steroids are called ‘anabolic steroids’.

**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.

**squamous cell cancer**

This is the second most common type of skin cancer (basal cell cancer is the most common). Squamous cell cancer starts as a small rash on your skin. If it's not caught early, it can spread and cause serious problems. Squamous cell cancer can be treated if it is found early. Doctors often call it squamous cell carcinoma.

**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.

**placebo**

A placebo is a 'pretend' or dummy treatment that contains no active substances. A placebo is often given to half the people taking part in medical research trials, for comparison with the 'real' treatment. It is made to look and taste identical to the drug treatment being tested, so that people in the studies do not know if they are getting the placebo or the 'real' treatment. Researchers often talk about the 'placebo effect'. This is where patients feel better after having a placebo treatment because they expect to feel better. Tests may indicate that they actually are better. In the same way, people can also get side effects after having a placebo treatment. Drug treatments can also have a 'placebo effect'. This is why, to get a true picture of how well a drug works, it is important to compare it against a placebo treatment.

**rheumatoid arthritis**

If you have rheumatoid arthritis, your joints get painful, swollen, and stiff. Rheumatoid arthritis is caused by inflammation inside your joints. It happens when your immune system attacks the lining of your joints.

**Crohn's disease**

Crohn's disease causes inflammation in your bowel. It usually affects your small intestine, but can happen anywhere in your digestive tract. It causes diarrhoea and bloody stools.

**allergic reaction**

You have an allergic reaction when your immune system overreacts to a substance that is normally harmless. You can be allergic to particles in the air you are breathing, like pollen (which causes hay fever) or to chemicals on your skin, like detergents (which can cause a rash). People can also have an allergic reaction to drugs, like penicillin.

**tuberculosis**

Tuberculosis (also known as TB) is an infection caused by certain bacteria. The most common type of tuberculosis affects your lungs. This can give cause chest pain, tiredness and a severe cough.

**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.

**bone marrow**
Psoriasis

Your bone marrow is the soft material inside your bones. Bone marrow makes and stores blood cells.

**anaemia**
Anaemia is when you have too few red blood cells. Anaemia can make you get tired and breathless easily. It can also make you look pale. Anaemia can be caused by a number of different things, including problems with your diet, blood loss and some diseases.

**red blood cells**
Red blood cells are the part of your blood that makes it red. Their main job is to carry oxygen from your heart and lungs to the tissues of your body. Once these cells unload oxygen, they pick up carbon dioxide. They take carbon dioxide back to your lungs so it can be breathed out of your body.

**kidney**
Your kidneys are organs that filter your blood to make urine. You have two kidneys, on either side of your body. They are underneath your ribcage, near your back.

**high blood pressure**
Your blood pressure is considered to be high when it is above the accepted normal range. The usual limit for normal blood pressure is 140/90. If either the first (systolic) number is above 140 or the lower (diastolic) number is above 90, a person is considered to have high blood pressure. Doctors sometimes call high blood pressure ‘hypertension’.

**diarrhoea**
Diarrhoea is when you have loose, watery stools and you need to go to the toilet far more often than usual. Doctors say you have diarrhoea if you need to go to the toilet more than three times a day.

**acupuncture**
If you have acupuncture, an acupuncturist puts thin, sterile needles into your skin. People who perform traditional acupuncture believe that it removes blockages along energy channels in your body. Other acupuncturists say that the needles help your body release natural chemicals that block pain.

**psychotherapy**
Psychotherapy is a talking treatment. It is given by trained therapists (such as a psychiatrists, psychologists or social workers). Psychotherapy usually consists of regular sessions (often weekly) between the therapist and the patient. There are many types of psychotherapy, including cognitive behavioural therapy and interpersonal therapy.

**Sources for the information on this leaflet:**


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Psoriasis


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