VITILIGO:

<http://www.medicinenet.com/vitiligo/article.htm>

### What is vitiligo, and what causes it?

Vitiligo (pronounced vit-ill-EYE-go) is a [pigmentation](http://www.medicinenet.com/script/main/forum.asp?articlekey=26383) disorder in which melanocytes (the cells that make pigment) in the skin are destroyed. As a result, white patches appear on the skin in different parts of the body. Similar patches also appear on both the mucous membranes (tissues that line the inside of the mouth and nose) and the retina (inner layer of the eyeball). The hair that grows on areas affected by vitiligo sometimes turns white.

The cause of vitiligo is not known, but doctors and researchers have several different theories. There is strong evidence that people with vitiligo inherit a group of three genes that make them susceptible to depigmentation. The most widely accepted view is that the depigmentation occurs because vitiligo is an autoimmune disease -- a disease in which a person's immune system reacts against the body's own organs or tissues. People's bodies produce proteins called cytokines that, in vitiligo, alter their pigment-producing cells and cause these cells to die. Another theory is that melanocytes destroy themselves. Finally, some people have reported that a single event such as [sunburn](http://www.medicinenet.com/script/main/art.asp?articlekey=92015) or emotional distress triggered vitiligo; however, these events have not been scientifically proven as causes of vitiligo.

### Who is affected by vitiligo?

About 0.5 to 1 percent of the world's population, or as many as 65 million people, have vitiligo. In the United States, 1 to 2 million people have the disorder. Half the people who have vitiligo develop it before age 20; most develop it before their 40th birthday. The disorder affects both sexes and all races equally; however, it is more noticeable in people with dark skin.

Vitiligo seems to be somewhat more common in people with certain autoimmune diseases, including [hyperthyroidism](http://www.medicinenet.com/script/main/art.asp?articlekey=391) (an overactive thyroid gland), adrenocortical insufficiency (the adrenal gland does not produce enough of the hormone called corticosteroid), [alopecia areata](http://www.medicinenet.com/script/main/art.asp?articlekey=9294) (patches of baldness), and [pernicious anemia](http://www.medicinenet.com/script/main/art.asp?articlekey=1966) (a low level of red blood cells caused by the failure of the body to absorb [vitamin B12](http://www.medicinenet.com/script/main/art.asp?articlekey=6307)). Scientists do not know the reason for the association between vitiligo and these autoimmune diseases. However, most people with vitiligo have no other autoimmune disease.

Vitiligo may also be hereditary; that is, it can run in families. [Children](http://www.medicinenet.com/script/main/art.asp?articlekey=22404) whose [parents](http://www.medicinenet.com/script/main/art.asp?articlekey=64087) have the disorder are more likely to develop vitiligo. In fact, 30 percent of people with vitiligo have a family member with the disease. However, only 5 to 7 percent of children will get vitiligo even if a parent has it, and most people with vitiligo do not have a family history of the disorder.

NHS-Vitiligo

There is no known cure for vitiligo, but treatment may improve your skin’s appearance by restoring pigment (colour) to your patches. However, the effects of treatment are not usually permanent, and it cannot control the spread of the condition.

Treatment for vitiligo is not always successful. See [Vitiligo - complications](http://www.nhs.uk/Conditions/Vitiligo/Pages/Complications.aspx) for more information about this.

Your GP may begin treating your condition with:

* sun safety advice
* a referral for camouflage creams
* topical corticosteroids

Your GP may suggest that no further treatment is necessary if, for example, you only have a small patch of vitiligo or you have very fair skin anyway. If you need further treatment, you may be referred to a dermatologist (specialist in treating skin conditions).

**Protection from the sun**

If you have vitiligo, you must protect your skin from the sun and avoid sunbeds.

When skin is exposed to sunlight, it produces a pigment called melanin to help protect it from ultraviolet light. If you have vitiligo, there is not enough melanin in your skin, so it is not protected. Sunburn is a real risk.

Always apply a high-factor sun cream, ideally with sun protection factor (SPF) 30 or above, to protect your skin from sunburn and long-term damage. This is particularly important if you have fair skin.

See the Health A-Z topic about [Sunburn](http://www.nhs.uk/conditions/sunburn/Pages/Introduction.aspx) for more information and advice about protecting your skin.

Protecting your skin from the sun will also minimise tanning, which will make your vitiligo less noticeable.

**Skin camouflage**

Skin camouflage involves applying coloured creams to the white patches on your skin. These creams are specially made to match your natural skin colour. The cream blends in the white patches with the rest of your skin, making them unnoticeable.

For advice about skin camouflage, your GP may refer you to the British Red Cross. It runs more than 250 skin camouflage clinics throughout the UK. See [Red Cross: skin camouflage](http://www.redcross.org.uk/What-we-do/Health-and-social-care/Social-support-in-the-UK/Skin-camouflage) for more information.

You need to be trained in using the camouflage creams, but the service is free (although donations are welcome) and some creams are can be prescribed on the NHS. Camouflage creams are waterproof and can be applied anywhere on the body. They last up to four days on the body and 12-18 hours on the face.

You can also get skin camouflage cream that contains sun block or has an SPF rating.

Self-tanning lotion (fake tan) may also help to cover vitiligo. Some types can last for several days before you need to reapply them. Self-tanning lotion is available from most pharmacies.

**Topical corticosteroids**

Corticosteroids are any type of medicine that contains steroids, a type of hormone. Hormones are chemicals produced by the body that have a wide range of effects. Topical means the medicine is applied to the skin, such as a cream or ointment.

See the Health A-Z topic about [Topical corticosteroids](http://www.nhs.uk/conditions/Corticosteroid-preparations-%28topical%29/Pages/Introduction.aspx) for more information about this type of medicine.

Topical corticosteroids are unlicensed for the treatment of vitiligo (see box, left). But they can sometimes stop the spread of the patches, and may restore some of your original skin colour. Your GP may prescribe a topical corticosteroid cream to adults if:

* you have non-segmental vitiligo on less than 10% of your body
* you want further treatment (sun protection advice and camouflage creams are enough for some people)
* the treatment is not for your face
* you are not pregnant
* you understand and accept the risk of side effects

**Using topical corticosteroids**

Your GP may prescribe a cream or an ointment, depending on what you prefer and where it will be used. Ointments tend to be greasier. Creams are better in your joints – for example, inside your elbows. Possible corticosteroids that may be prescribed include:

* fluticasone propionate
* betamethasone valerate
* hydrocortisone butyrate

Your GP will tell you how to apply the cream or ointment to the patches and how much you should use (see the box, left). You normally need to apply the treatment once a day.

After one month your GP will ask you to return so that they can see how well the treatment is working and check for any side effects. If your vitiligo is not improving or the treatment is causing side effects, you may need to stop using the corticosteroids.

After another month, your GP will see how much your vitiligo has improved. If it has not, you may be referred to a dermatologist (see below). If your vitiligo has improved slightly, you may continue treatment but have a two-week break from treatment every three weeks. You may also be referred to a dermatologist.

If the vitiligo has improved, treatment will be stopped.

Your GP may take photos of your vitiligo throughout your treatment to monitor any signs of improvement. If you have a camera, you may also want to take photos to keep an eye on your condition.

**Side effects**

Side effects of topical corticosteroids include:

* streaks or lines in your skin (striae)
* thinning of your skin (atrophy)
* visible blood vessels appearing (telangiectasia)
* excess hair growth (hypertrichosis)
* [contact dermatitis](http://www.nhs.uk/conditions/eczema-%28contact-dermatitis%29/pages/introduction.aspx) (inflammation of your skin)
* [acne](http://www.nhs.uk/conditions/acne/pages/introduction.aspx) (spots)

**Referral**

You GP may refer you to a dermatologist if:

* they are unsure about your diagnosis
* you are pregnant and need treatment
* more than 10% of your body is affected by vitiligo
* you are distressed about your condition
* your face is affected and you want further treatment
* you cannot use topical corticosteroids because of the risk of side effects
* you have segmental vitiligo and want further treatment
* treatment with topical corticosteroids has not worked

Children with vitiligo who need treatment will also be referred to a dermatologist, particularly if their parents are distressed about their condition.

In some cases, you may be prescribed strong topical corticosteroids (see above) while you are waiting to be seen by a dermatologist.

Some treatments that your dermatologist may recommend are described below.

**Topical pimecrolimus or tacrolimus**

Pimecrolimus and tacrolimus are a type of medicine called calcineurin inhibitors that are normally used to treat eczema. They are unlicensed for the treatment of vitiligo (see box, left).

Pimecrolimus or tacrolimus may be used to treat vitiligo in children or adults. They can cause side effects, such as:

* burning or pain
* making the skin more sensitive to sunlight
* facial flushing (redness) and skin irritation if you drink alcohol

**Phototherapy**

Phototherapy (treatment with light) may be used for children or adults if:

* topical treatments have not worked
* the vitiligo is widespread
* the vitiligo is having a significant impact on their quality of life

Evidence suggests that phototherapy, particularly when combined with other treatments, has a positive effect on vitiligo.

During phototherapy, your skin is exposed to ultraviolet A (UVA) or ultraviolet B (UVB) light from a special lamp. You may first take a medicine called psoralen, which makes your skin more sensitive to the light. You can take psoralen by mouth (orally), or you can add it to your bath water.

This type of treatment is sometimes called PUVA (psoralen and ultraviolet A light).

Phototherapy may increase the risk of [skin cancer](http://www.nhs.uk/Conditions/Cancer-of-the-skin/Pages/Introduction.aspx) because of the extra exposure to UVA rays. Your dermatologist should discuss this risk with you before you decide to have phototherapy.

Although you may be able to buy special sunlamps to use at home for light therapy, these are not recommended. They are not as effective as the phototherapy you will receive in hospital. The lamps are also not regulated, so they may not be safe.

**Skin grafts**

A skin graft is a surgical procedure that involves removing healthy skin from an unaffected area of the body and using it to cover an area where the skin has been damaged or lost. To treat vitiligo, a skin graft can be used to cover the white patch.

Skin grafts may be considered for adults in areas that are affecting your appearance if:

* no new white patches have appeared in the last 12 months
* the white patches have not gotten worse in the last 12 months
* your vitiligo was not triggered by damage to your skin, such as severe sunburn (the Koebner response)

This type of treatment is time-consuming and is not widely available in the UK. It has a risk of scarring and will not be considered for children.

**Depigmentation**

Depigmentation may be recommended for adults who have vitiligo on more than 50% of their bodies. It may not be widely available.

During depigmentation, a lotion is painted onto the normal skin to bleach away the pigment and make it the same colour as the depigmented (white) skin. A hydroquinone-based medication is used, which has to be applied continuously to prevent the skin from re-pigmenting.

Hydroquinone can cause side effects, such as:

* redness
* itching
* stinging

Depigmentation is usually permanent and leaves the skin with no protection from the sun. Re-pigmentation (when the colour returns) can occur, and may differ from your original skin colour.

**Other treatments**

Your dermatologist may recommend trying more than one treatment: for example, phototherapy combined with a topical treatment. Other possible treatments include:

* **excimer lasers** – high-energy beams of light that are used in laser eye treatment, but may also be used in phototherapy
* **vitamin D analogues,** such as calcipotriol, may also be used with phototherapy
* **azathioprine,** a medicine that suppresses your immune system (the body’s natural defence system), may be used with phototherapy
* **oral prednisolone,** a type of corticosteroid, has also been used with phototherapy, although it can cause side effects

**Complementary therapies**

Some complementary therapies claim to relieve or prevent vitiligo. But there is no evidence to support their effectiveness, therefore more research is needed before they can be recommended.

There is very limited evidence that Ginkgo biloba, a herbal remedy, may benefit people with non-segmental vitiligo. However, there is currently not enough evidence to recommend it.

If you decide to use herbal remedies, check with your GP first, as some remedies can react unpredictably with other medication or make it less effective.

Last reviewed: 03/12/2010

Next review due: 03/12/2012

<http://www.nhs.uk/Conditions/Vitiligo/Pages/Treatment.aspx>

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<http://www.thewellnesswell.net/cart/>

<http://www.vitiligoherb.com/>

<http://www.vitiligoorganics.com/>

<http://www.antivitiligo.com/>

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