



Authoritative facts about the skin from the [New Zealand Dermatological Society Incorporated](#).

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Albinism

What is albinism?

Albinism is a condition in which people have little or no melanin pigment (compound that creates colour) in their eyes, skin or hair. Because of this people with albinism look a little different from other members of their family without albinism. They have very fair skin which is prone to sunburn, their hair is white or a very light colour, and they may squint a lot as their eyes are sensitive to sunlight.

Classification of albinism

There are two main categories of albinism:

Oculocutaneous

- involves dilution of the colour of the hair, skin and eyes
- most common form of albinism

Ocular

- melanin pigment mainly missing from the eyes while the skin and hair appear normal or only slightly lighter
- accounts for 10–15% of all albinism cases

Oculocutaneous albinism (OCA) make up a group of different types of albinism based on the specific albinism gene involved. Oculocutaneous albinism type 1 and type 2 are the most common types of oculocutaneous albinism.

Types of oculocutaneous albinism
<p>Type 1 (tyrosinase-related albinism)</p> <ul style="list-style-type: none"> • Sub-groups include OCA1, OCA1A and OCA1B • Very little or no pigmentation • Genetic defect of the tyrosinase enzyme that helps the body to change the amino acid tyrosine into melanin pigment
<p>Type 2 (P-gene related albinism)</p> <ul style="list-style-type: none"> • Slight pigmentation • Genetic defect of the P gene on chromosome 15
<p>Hermansky-Pudlak syndrome</p> <ul style="list-style-type: none"> • Variable pigmentation • Genetic defect of the P gene on chromosome 10 • Also associated with abnormal platelets leading to bleeding, lung fibrosis and gastrointestinal problems
<p>Other less common OCA types</p> <ul style="list-style-type: none"> • Chediak-Higashi syndrome • Prader-Willi and Angelman syndrome

- TRP1-related OCA

How do you get albinism?

Albinism is mostly a recessively inherited disease, which means that you have inherited two albinism genes (one from each parent). If your parents are only carriers of albinism (each having one albinism gene and one normal gene) they will have enough genetic information to make normal pigment and will not show any signs of albinism.

Who is at risk of albinism?

Albinism occurs worldwide and affects people of all races. Males and females alike can have the condition although ocular albinism occurs primarily in males.

About 1 in 70 people have a gene for albinism. Couples whom are each carriers of the recessive albinism gene have a 1 in 4 chance of producing a child with albinism.

What are the problems associated with albinism?

The main problems of albinism are caused by the inability of the body to produce melanin pigment (whose major role in the skin is to absorb UV light from the sun so skin is not sun-damaged). It also has a role in the development of normal vision of the eye. Having white or light coloured hair due to lack of melanin is no cause for concern, however, lack of melanin in the skin and eyes can cause the following problems:

Skin problems

- Easily sunburn
- Increased chance of getting skin cancers

Eye problems

- Impaired vision: although not "blind", vision is impaired and may not be fully corrected with glasses. Varying degrees of near-sightedness or far-sightedness exist.
- Photophobia: sensitivity to light or glare
- Nystagmus: involuntary movement of the eyes back and forth
- Strabismus: eyes do not fixate and track together
- Retinal involvement: this is an important area of the eye as it is responsible for sending signals to the brain. Impaired transmission of signals causes various vision disorders

Other less common types of albinism may also involve problems with blood clotting, immune deficiency or problems with hearing.

One concern that should not be overlooked is the risk of isolation in people with albinism. People with albinism, especially children need to be treated normally and included in all activities. They develop normally and have normal intelligence, it is a myth that people with albinism are mentally impaired or intellectually-challenged.

What treatment or precautions can be taken?

It is important for people with albinism to protect themselves from UV exposure and thus prevent the damaging effects it can have on the skin.

- Sun avoidance methods
 - Wear [protective clothing](#) (long sleeves and pants, shirts with collars, tightly woven fabrics that don't let light through), hats (wide-brimmed) and eyewear (specifically made to protect from UV rays)
 - Use broad-spectrum [sunscreens](#) with SPF of 15 or greater: apply to all exposed areas

- Undergo frequent skin examinations by someone who has been taught to recognise signs of [skin cancer](#).

Because the patients has no, or little, pigmentations, skin cancers will often have no or little pigmentation. Report to your doctor any suspicious spots or growths immediately.

Specialist eye doctors cannot cure eye problems but can help with various optical aids to improve vision for people with albinism.

Related information

On DermNet NZ:

- [Skin cancer](#)

Other websites:

- [International Albinism Center](#) University of Minnesota. Facts about albinism.
- [NOAH](#) The National Organization for Albinism and Hypopigmentation (USA)
- [Albinism Trust](#) (New Zealand)
- [Albinism](#) - emedicine dermatology, the online textbook

Author: Vanessa Ngan, staff writer

DermNet does not provide an on-line consultation service.

If you have any concerns with your skin or its treatment, see a [dermatologist](#) for advice.

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