Albinos occur in all races of humans, most frequently among certain Native American tribes of the southwestern U.S., but nowhere in large numbers. Albinism is transmitted as a recessive hereditary genetic characteristic.

Albinism affects people from all races. Most children with albinism are born to parents who have normal hair and eye color for their ethnic backgrounds.

1. Some patients with albinism have white hair and very light blue eyes,
2. Others have blonde hair and blue eyes,
3. And some even have brown hair and eyes.
4. The findings may be subtle and a person may not even know that he or she has albinism.

The disorder is generally divided into two types. Oculocutaneous Albinism or OCA and Ocular Albinism or OA. OCA involves decreased pigment in the eyes, hair, and skin. There are 4 types of OCA that have been described as above. Ocular albinism involves primarily or only the eyes, while the skin and hair show normal or near-normal coloration. Besides of that several types of partial albinism exist, including dominant

1. piebald (spotted or patched, especially in black and white)albinism,
2. dominant white forelock (a lock of hair that grows from or falls on the forehead),
3. and chromosomal, sex-linked ocular albinism. In X-linked inheritance, the gene for albinism is located on an X chromosome. Females have two X chromosomes (XX), while males have one X chromosome and one Y chromosome (XY). X-linked ocular albinism appears almost exclusively in males as albinism is a recessive trait.

One person in 17,000 has some type of albinism.

Abnormal eye findings of albinism?

1. Nystagmus: involuntary eye movements or “shaking”
2. Abnormal Head Position: the child develops a preferred head position to reduce the involuntary eye movements (nystagmus) and optimize vision
3. Strabismus: misalignment of the eyes.
4. Photophobia: sensitivity to bright light and glare
5. Refractive Errors: Far-sightedness (hyperopia), near-sightedness (myopia) and astigmatism are very common.
6. Foveal hypoplasia: the central part of the retina (the inside part of the eye that perceives light) does not develop normally before birth and during infancy. Without normal development of the central retina, vision is decreased.

7. Optic nerve misrouting: the nerve signals from the retina to the brain do not follow the usual nerve routes. (figure 2)

8. The iris (the colored area in the center of the eye) has little to no pigment to screen out stray light coming into the eye. This is known as iris transillumination. (figure 3)

9. Vision can range from normal for those minimally affected, to legal blindness (vision less than 20/200) or worse for those with more severe forms of albinism.
   a) Near vision is often better than distance vision. Generally, those who have the least amount of pigment have the poorest vision.

- [researchgate link]
- [genespoir link]
- [wikipedia link]
Liste des gènes responsables des différentes formes d'albinisme connus en octobre 2014

<table>
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<tr>
<th>Gène</th>
<th>Classification</th>
<th>Type d'albinisme</th>
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<tr>
<td>TYR</td>
<td></td>
<td>OCA1 Albinisme oculo cutané de Type 1</td>
</tr>
<tr>
<td>OCA2</td>
<td></td>
<td>OCA2 Albinisme oculo cutané de Type 2</td>
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<td></td>
<td>OA1 Albinisme oculaire de Type 1</td>
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<tr>
<td>LYST</td>
<td></td>
<td>CHS1 Syndrome de Chediak–Higashi de Type 1</td>
</tr>
</tbody>
</table>
HPS1 HPS1 Syndrome d'Hermansky–Pudlak de Type 1
AP3B1 HPS2 Syndrome d'Hermansky–Pudlak de Type 2
HPS3 HPS3 Syndrome d'Hermansky–Pudlak de Type 3
HPS4 HPS4 Syndrome d'Hermansky–Pudlak de Type 4
HPS5 HPS5 Syndrome d'Hermansky–Pudlak de Type 5
HPS6 HPS6 Syndrome d'Hermansky–Pudlak de Type 6
DTNBP1 HPS7 Syndrome d'Hermansky–Pudlak de Type 7
BLOC1S3 HPS8 Syndrome d'Hermansky–Pudlak de Type 8
BLOC1S6 HPS9 Syndrome d'Hermansky–Pudlak de Type 9

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