**Albinism**

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I. Introduction:

Albinism is a genetic disorder that occurs when the body cannot produce or distribute melanin. The gene that results in albinism is protective pigment in their skin, and can burn easily from exposure to the sun as a result. Melanin is a natural substance that gives color to your hair, skin, and eye. This is a rare genetic disease and it affects less than 200,000 people in the US population. All over the world, 1 in 17,000 people are albinos but up to 1 in 75 may be carriers for this genetic disorder. Albinism can affect any race and have been known to affect many species of animals such as mammals, birds, reptiles, and amphibians. Albinism does not affect intellectual development but many people with albinism feel and experience a lot of discrimination.

II. Symptoms:

There are many symptoms and signs that help doctor diagnose a person with albinism. A person with albinism will have the following symptoms:

* Pale skin
* White hair
* Blue eyes/white eyes/red eyes
* Impaired vision
* Skin is sensitive to sunlight

Skin

People with albinism have a milky white skin but the skin shade can range as a result of the severity of the disorder. Because of the lack of melanin, when people with albinism go into the sunlight, their skin is often burned by the sun and damaged. This can eventually lead to skin cancer

Hair

Hair color can range depending on the severity of the disorder. It ranges from white to brown. People with albinism may have hair color that changes in adulthood.

Eye Color

Eye color can range from light blue to brown and it can change, as people with albinism grow older. Because there is no pigmentation in the irises of albino’s eyes, their eyes can’t completely block out many harmful rays and light from damaging their eyes. This leads to rapid back-and-forth movement of the eyes. It also causes extreme nearsightedness or farsightedness.

III. Causes

The cause of albinism is a result of a mutation in a few genes. These genes provide information and codes for the production of melanin. Melanin is produced by melanocytes, which are cells found in your skin and eyes. This mutation can cause little to no production of melanin because that part of the gene is damaged. Albinism occurs when people inherit two copies of a mutated gene. The person inherited one mutated gene from mom and one mutated gene from dad. In order for albinism to occur, the person must have two recessive alleles for albinism. This means that if the person only has one recessive allele, he or she won’t have the disorder but will be a carrier for it.

IV. Prevention

Albinism is a genetic disorder so it generally cannot be prevented. It often happens in families who had no history of the disorder since this is a recessive disorder. However, if parents suspect or think that they may be carriers or have a family history of the disease, genetic testing can help to see if either or both of the parents carry the mutation in genes that causes albinism. Furthermore, if both parents know they are carriers, test can be done during pregnancy to check if the fetus (baby) has inherited the mutations that causes albinism.

V. Treatment/Medicine

There is no cure for albinism but there is treatment to help relieve or reduce the symptoms that a person with albinism experiences. Treatment depends on how severe the disorder is for that person. Treatment includes protecting the skin and eyes from the sun. Some things that person living with albinism can do to help reduce the symptoms are:

* Avoid the sun to reduce sunburn
* Use sunscreen everyday before going outside
* Covering up as much as possible to protect from the sun
* Sunscreen with higher protection factors
* Sunglasses to protect eyes
* Glasses can be prescribed to help with vision problems
* Skin cancer screenings to test for cancer every year
* Eye and skin check-ups with doctors

**Sources**

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