

What Is Vitamin A Deficiency?

Vitamin A is found in many foods, including leafy green vegetables, orange vegetables (carrots, sweet potatoes, pumpkin), eggs, and cantaloupes. A lack of access to a balanced diet with enough vitamin A can lead to vitamin A deficiency.

Vitamin A plays an important role in your vision. To see the full spectrum of light, your eye needs to produce certain pigments for the photoreceptor cells in your retina to work properly. Vitamin A deficiency stops the production of these pigments, leading to [night blindness](#). Your eye also needs vitamin A to nourish other parts of your eye, including the cornea, the clear covering on the front of your eye. Without enough vitamin A, your eyes cannot produce enough moisture to keep them properly lubricated.

Vitamin A deficiency is the leading cause of preventable blindness in children worldwide. An estimated 250,000 to 500,000 children become blind every year because of vitamin A deficiency. Half of these children die within a year of losing their sight.

In [pregnant women](#), vitamin A deficiency causes night blindness and may contribute to maternal mortality. Vitamin A deficiency also compromises the immune system, increasing the chance of death from malaria, measles and diarrhea.

Vitamin A deficiency risks

Vitamin A deficiency is a significant problem in developing nations in Africa and Southeast Asia. Young children and pregnant women in low-income countries are at highest risk.

Vitamin A Deficiency Symptoms

The main symptom of vitamin A deficiency is vision loss and blindness.

Vision loss often begins as a problem adjusting to seeing in the dark, or [night blindness](#). People with night blindness do not see well in the dark, but are able to see normally if enough light is present. As the vitamin A deficiency worsens, the conjunctiva, the covering on the white of the eye that helps lubricate your eye, dries out, and [corneal ulcers](#) appear. The progression of the deficiency eventually leads to vision loss and blindness.

Vitamin A Deficiency Diagnosis and Treatment

Vitamin A deficiency is diagnosed by an [eye exam](#) and by reviewing medical history. A blood test can measure the amount of vitamin A in the blood. However, because vitamin A deficiency is most common in areas with limited medical access, the diagnosis is often made on the basis of information provided by the parent about the child's vision, particularly the appearance of [night blindness](#).

Vitamin A deficiency treatment

Vitamin A deficiency can be treated with vitamin A supplements. The amount of supplements depends upon the age of the child. Vitamin A supplements can reverse night blindness and help the eyes become properly lubricated again. However, vision loss caused by scarring from [corneal ulcers](#) cannot be reversed. International organizations are working to address vitamin A deficiency in at-risk populations, and seek to promote prevention through [adequate diet](#) and vitamin supplements.