

# Vitamin A Deficiency

## Information for women who have vitamin a deficiency during pregnancy or breastfeeding

The information provided below is for readers based in the United States of America. Readers outside of the United States of America should seek the information from local sources.

### **What is vitamin A deficiency during pregnancy?**

Vitamin A deficiency (VAD) is a deficiency of vitamin A (all-trans-retinol), a fat-soluble vitamin that is vital, both to pregnant women and their embryos/fetuses. Worldwide, VAD is the number one preventable cause of blindness. This is because vitamin A is particularly crucial for the development and maintenance of the eye, although it also plays a major role in the skeletal system and various organs. Because of the needs of the developing, growing fetus, your requirements for vitamin A are greater during pregnancy compared with when you are not pregnant, so VAD can be an issue, if you don't receive adequate amounts of vitamin A, or a precursor to vitamin A such as beta carotene, in your diet.

### **How common is vitamin A deficiency during pregnancy?**

In a report issued in 2017, the World Health Organization reported that VAD affects approximately 19 million pregnant women in developing countries.

### **How is vitamin A deficiency during pregnancy diagnosed?**

VAD is diagnosed by an ophthalmologist, or an optometrist, by way of an ocular examination. This examination reveals very specific abnormalities in the eye, namely xerosis ([dry eyes](#)), corneal ulceration and melting (keratomalacia), retinopathy (abnormalities of the retina, the part of the eye where images are generated and converted into nervous signals), and night blindness (nyctalopia).

### **Does vitamin A deficiency cause problems during pregnancy?**

Effects of VA emerge particularly in the eyes. Mild VAD may be subclinical (not causing symptoms), or it can give you night blindness (nyctalopia). If the deficiency progresses and is not treated, this can lead to permanent blindness. Non-ocular effects of VAD include dry skin, delayed or inadequate wound

healing, exacerbation of [acne](#), [anemia](#), and problems with the immune system, leading to severe throat infections and very difficult-to-treat types of [pneumonia](#) that can be fatal.

### **Does vitamin A deficiency cause problems for the baby?**

Maternal VAD can lead to a variety of adverse outcomes for the baby, such as low birth weight, preterm birth, small for gestational age, and fetal loss, plus it elevates the risk of neonatal or infant death.

### **What to consider about taking medications when you are pregnant or breastfeeding:**

- The risks to yourself and your baby if you do not treat the vitamin A deficiency
- The risks and benefits of each medication you use when you are pregnant
- The risks and benefits of each medication you use when you are breastfeeding

### **What should I know about using medication to treat vitamin A deficiency during pregnancy?**

Mild to moderate VAD with symptoms can be treated with up to 10,000 IU (3,000 mcg) of vitamin A per day. In non-pregnant adults, severe VAD can be treated with therapeutic vitamin A doses up to 200,000 IU (60,000 mcg) daily, but such doses are thought to cause birth defects. Consequently, WHO guidelines recommend that pregnant women are given no more than 10,000 IU, or a weekly dose of 25,000 IU.

### **Who should NOT stop taking medication for vitamin A deficiency during pregnancy?**

If you suffer from VAD while pregnant, you should not exceed the limit of vitamin A dosage recommended by WHO, but you should not discontinue the therapy until your doctor tells you to do so.

### **What should I know about choosing a medication for my vitamin A deficiency during pregnancy?**

It is important to stay in communication with your health care provider as the release of new studies over time can change the outlook on the role of specific medications during pregnancy.

You may find Pregistrys expert reports about the medications to treat this condition [here](#). Additional information can also be found in the sources listed below.

### **What should I know about taking a medication for my vitamin A deficiency when I am breastfeeding?**

WHO recommends a vitamin A daily dose of 200,000 IU for lactating mothers who have severe VAD. Be aware that this is much higher than the limit that is recommended during pregnancy.

## **What alternative therapies besides medications can I use to treat my vitamin A deficiency during pregnancy?**

If your VAD is subclinical, you may be able to avoid vitamin A in pills and increase your vitamin A levels by consuming foods that are rich in vitamin A, such as beef, liver, chicken, eggs, and fortified milk, and foods that are rich in beta carotene, such as cantaloupe, tomatoes, and mangoes. Consumption of food rich in vitamin A or beta carotene is also vital for preventing VAD and its complications. One very promising development against VAD on a large scale is Golden Rice, a rice that has been genetically engineered to make beta carotene. This is a non-profit program funded by the Bill and Melinda Gates Foundation, and potentially, it can prevent blindness and death in millions of people, including many children, in places where rice dominates the diet. However, there is misinformation spread by organizations opposed to biotechnology, including various food companies and non-governmental organizations that have been pushing an increasing number of so-called non-GMO food products into consumer markets.

## **What can I do for myself and my baby when I have vitamin A deficiency during pregnancy?**

Follow the instructions of your obstetrician, ophthalmologist, and nutritionist. Learn about the Golden Rice Project and its potential benefits and work to support its use to prevent blindness and death in places where VAD is problematic.

## **Resources for vitamin A deficiency in pregnancy:**

For more information about **vitamin A deficiency** during and after pregnancy, contact <http://www.womenshealth.gov/> (800-994-9662 [TDD: 888-220-5446]) or contact the following organizations:

- [Mayo Clinic. Vitamin A](#)
- [Golden Rice Project](#)

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## **General information**

It is very common for women to worry about having a miscarriage or giving birth to a child with a birth defect while they are pregnant. Many decisions that women make about their health during pregnancy are made with these concerns in mind.

For many women these concerns are very real. As many as 1 in 5 pregnancies end in a miscarriage, and 1 in 33 babies are born with a birth defect. These rates are considered the background population risk, which means they do not take into consideration anything about the health of the mom, the medications she is taking, or the family history of the mom or the baby's dad. A number of different things can increase these risks, including taking certain medications during pregnancy.

It is known that most medications, including over-the-counter medications, taken during pregnancy do get passed on to the baby. Fortunately, most medicines are not harmful to the baby and can be safely taken during pregnancy. But there are some that are known to be harmful to a baby's normal development and growth, especially when they are taken during certain times of the pregnancy. Because of this, it is important to talk with your doctor or midwife about any medications you are taking, ideally before you even try to get pregnant.

If a doctor other than the one caring for your pregnancy recommends that you start a new medicine while you are pregnant, it is important that you let them know you are pregnant.

If you do need to take a new medication while pregnant, it is important to discuss the possible risks the medicine may pose on your pregnancy with your doctor or midwife. They can help you understand the benefits and the risks of taking the medicine.

Ultimately, the decision to start, stop, or change medications during pregnancy is up to you to make, along with input from your doctor or midwife. If you do take medications during pregnancy, be sure to keep track of all the medications you are taking.