Dear Alice,

Why do you need vitamin A?

**Answer**

Dear Reader,

You ask a vital question, and worth responding to without delay. Vitamin A is a fat-soluble vitamin that has many diverse benefits for humans. It promotes eye health and helps you see in the dark; aids in the differentiation of cells of the skin (lining the outside of the body) and mucous membranes (linings inside of the body); helps the body fight off infection and support the immune system; and supports growth and remodeling of bone. Sounds pretty vital, right? But before you stock up on supplements or make your way to the store to get your vitamin A fix, it’s also good to be aware of how best to get it and how much is safe to take to get the most out of this nutrient.

Vitamin A can be found both in the flora and the fauna of the world — and that’s good, because it’s recommended that folks get their fill of it through their diet. Because vitamin A is fat-soluble, cooking (but not overcooking) and making sure to get some fat within the same meal can help your body to absorb the vitamin properly. Carotenoids, the plant-based form of vitamin A, are found in dark leafy greens and in yellow and orange fruits and veggies (e.g., sweet potatoes, carrots, winter squash, mangos, and peaches). They’re (including beta-carotene) often referred to as the “precursor” type of vitamin A, which means that once it’s in the body, it's then transformed into vitamin A. High intake of dietary beta-carotene has been linked to lower risk of age-related macular degeneration and lower risk of certain cancers, including cancers of the breast, colon, esophagus, and cervix. Retinol, on the other hand, is the active or “preformed” type of vitamin A, which comes from animal sources such as beef and chicken liver, eggs, dairy products, and fish liver oil. Medications that are related to this type of vitamin A (called retinoids) are used to treat acne and other skin conditions such as psoriasis.

Though everyone needs vitamin A, the specific need for each person may vary. The recommended dietary allowance (RDA) for adults assigned male at birth (ages 19 and older) is 900 micrograms (mcg) per day and for adults assigned female at birth (ages 19 and older), it’s 700 mcg per day. Pregnant and breastfeeding people 19 years old and older have different daily...
dietary intakes, which are 770 mcg and 1,200 mcg respectively.

In either extreme of too little or too much vitamin A, there is potential for risks to your health. Vitamin A deficiency (when a person doesn’t have enough of the vitamin) is characterized by dry eyes, decreased night vision (which may eventually result in blindness), diarrhea, and skin issues. Those who are deficient are also more susceptible to infection. Folks with this deficiency are prime candidates for vitamin A supplements. On the flip side, excessive intake of vitamin A from food may result in a yellowing of the skin, but isn't usually harmful. It's noted, however, that taking vitamin A supplements or medicines can contribute to taking too much. Symptoms of excess intake depend upon whether or not high vitamin A intake was over a long period of time (chronic) or a single excessive dose at one point in time (acute) and may include dry skin, rash, nausea, vomiting, fatigue, weakness, headaches, and hair loss. Large doses of preformed vitamin A (particularly in retinol supplements) can interfere with the function of vitamin D in the body, and increase the risk for bone fractures and birth defects. Beta-carotene supplements seem to carry less risk, but some studies have found that large doses as a supplement have been linked to higher risk of lung cancer among smokers. Both types of supplements have been found to increase triglycerides (fats in the blood) as well.

Even when vitamin A supplements are taken within a recommended dose, it still may not be appropriate for everyone. For those with diabetes or liver disease, it's recommended to take vitamin A supplements under the supervision of a health care provider. Those who smoke or drink heavily are advised not to take beta-carotene supplements. Women who are pregnant or hope to be soon are advised not to have additional vitamin A (there is some in prenatal vitamins already) and to avoid synthetic forms of vitamin A. Children are at a greater risk for experiencing side effects from too much vitamin A at much lower levels, so it's wise to monitor their use as well. Additionally, there are a number of recognized drug interactions that may hinder or amplify the effects of the medication when used in conjunction with vitamin A. Other medications may block the absorption of vitamin A. In any case, it's always a good idea to talk to a health care provider before taking vitamin A in supplement form.

Hope this helps supplement your vitamin knowledge!

Alice!

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