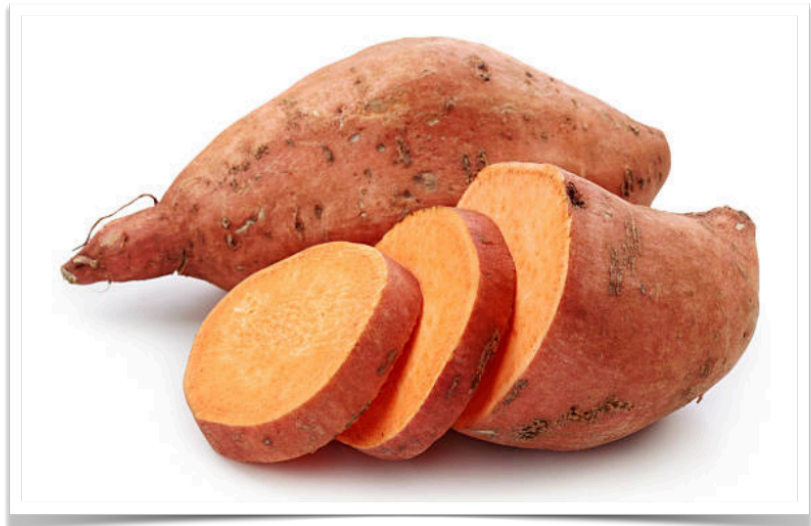


# VITAMIN A

*"Food is our common ground, a universal experience. –James Beard*

## Vitamin A - Basics

- Required for healthy vision, proper immune function, normal cell development.
- Requires fat for absorption, hence consuming low-fat diet could lead to vitamin A deficiency. Excess is stored in the liver, these levels can accumulate and lead to toxicity.
- Excessive heat (e.g., boiling) destroys vitamin A.
- Two forms of vitamin A: *Retinoids*, the bioavailable form, found in animal foods (liver or eggs)
- *Carotenoids*, pre-vitamin A, found in plant foods, must be converted into retinol. This reaction requires fat.
- Food sources: Beef liver, milk, egg yolks, salmon, sweet potatoes, carrots, spinach, parsley, apricots, peaches, citrus, tomatoes.
- Deficiency: Night blindness leading to permanent blindness, infections (esp. diarrhea & measles), low iron leading to anemia.



## Role of vitamin A in health

- Higher intakes of carotenoids, fruits and vegetables are associated with a lower risk of lung cancer. Always get your vitamin A from real food as supplemental (synthetic) beta-carotene and/or vitamin A carries risks of toxicity, heart disease, cancer, all-cause mortality, and detrimental effects in current or former smokers and workers exposed to asbestos.
- Prevents and treats age-related macular degeneration, major cause of vision loss in elders. Please note, vitamin A requires zinc for healthy vision.
- Vitamin A deficiency lowers immune function and is a known risk factor for measles. Deficiency also increases severity and mortality risk of infections (particularly diarrhea and measles). At risk: Diabetics, alcoholics, infants, people with compromised bile production.