Common Nutrient Deficiencies

Overview
A nutrient is a substance that provides nourishment to the body. These substances are essential to growth and maintenance of life. It is possible to become deficient in these nutrients, leaving the body in a less than optimal condition. The good news is that these deficiencies can be reversed, bringing the body back to a proper functioning level. Below is a list of four of the most common nutrient deficiencies, their symptoms, and suggestions on how to get more of each nutrient.

Vitamin D
Vitamin D is a key player in calcium absorption and regulation of phosphorus in the body. It is also vital to proper bone health and strength. It is estimated that 50% of the population is at risk for vitamin D deficiency.
- Who is most at risk for deficiency?
  - Older adults
  - Breastfed infants
- Individuals with limited sun exposure
- Individuals who have trouble absorbing nutrients (inflammatory bowel disease, gastric bypass surgery)
- Symptoms of deficiency
  - Fatigue
  - Weakness
  - Muscle aches
  - Poor immune function
  - Feeling “blue”
- How can I get more Vitamin D?
  - Sensible sun exposure
  - Consume vitamin D-rich foods
    - fatty fish (tuna, salmon)
    - egg yolks
    - dairy products

Vitamin B12
Vitamin B12, also known as the “energy vitamin”, is required for several vital bodily functions. It is important for energy production, blood formation, DNA synthesis, and myelin formation.
- Who is most at risk for deficiency?
  - Older adults
  - Individuals who eat a diet low in fruits and vegetables
  - Individuals who have trouble absorbing nutrients (Celiac disease, inflammatory bowel disease)
- Symptoms of deficiency
  - Mental fog
  - Memory problems
  - Mood swings
  - Apathy
  - Fatigue
  - Muscle weakness
  - Tingling in the extremities
- How can I get more vitamin B12?
  - Eat vitamin B12-rich foods
    - Beef
    - Beef liver
    - Lamb
    - Salmon
    - Shrimp
    - Scallops
**Magnesium**

Magnesium plays an important role in energy usage inside the cell. The cells in the body use a molecule called ATP for fuel, but this molecule can only work in the presence of magnesium. Magnesium is also important for bone health, development, and contraction of muscles.

- **Who is most at risk for deficiency?**
  - Individuals who eat a diet low in fruits and vegetables
  - Individuals with diabetes
  - Individuals who have trouble absorbing nutrients from food (inflammatory bowel disease, Celiac disease)

- **Symptoms of deficiency**
  - Loss of appetite
  - Sleep problems
  - Nausea
  - Fatigue
  - Migraine headaches

- **How can I get more magnesium?**
  - Eat magnesium-rich foods
    - Almonds
    - Cashews
    - Peanuts
    - Spinach
    - Black beans
    - Edamame

**Iron**

Iron is essential for several functions in the human body. Most importantly, it provides hemoglobin (protein in the blood), which allows for oxygen to be carried throughout the body. It is also important for energy production and enzyme function. While iron deficiency is common, too much iron is also a dangerous issue among our population. Due to this fact, it is important to have your iron levels checked by your doctor.

- **Who is most at risk for deficiency?**
  - Young women of child bearing age
  - Infants (especially those born premature)

- **Symptoms of deficiency**
  - Fatigue
  - Iron-deficiency anemia
  - Pale skin
  - Brittle hair
  - Trouble concentrating
  - Headache

- **How can I get more iron?**
  - Iron is best absorbed from animal sources
    - Poultry
    - Fish
    - Beef
  - Plant sources
    - Spinach
    - Nuts
    - Beans
    - Peas
    - Tofu

**Check with your doctor about dosing if taking any nutrient supplements.**

**References**

- [http://www.doctoroz.com/article/daily-dose](http://www.doctoroz.com/article/daily-dose)
- [http://articles.mercola.com/sites/articles/archive/2015/10/19/most-common-nutrient-deficiencies.aspx](http://articles.mercola.com/sites/articles/archive/2015/10/19/most-common-nutrient-deficiencies.aspx)

**If you have any suggestions for newsletter topics, please contact Dean Susan Hanrahan at hanrahan@astate.edu.**

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