Magnesium

- Low magnesium levels have been linked with asthma[1,2]

- Patients with asthma who reported a high dietary intake of magnesium had better lung function and a reduction in the relative risk of wheezing[3,4]

- Intravenous infusion of magnesium produces a rapid and marked bronchodilation in both mild and severe asthma and may be a unique bronchodilating agent[5,6]

- Signs of low magnesium:
  - Chest Tightness
  - Muscle cramps
  - Weakness
  - Insomnia
  - Kidney stones
  - Osteoporosis
  - Nervousness
  - Restlessness
  - Irritability
  - Depression
  - Anxiety
  - Confusion

References:

1. Fantidis P, et al. Intracellular (polymorphonuclear) magnesium content in patients with bronchial asthma between attacks. **J R Soc Med** 1995;88:441-445.
2. Fox CH, et al. An investigation of hypomagnesemia among ambulatory African Americans. **J Fam Pract** 1999;48:636-639.
3. Hill JM; Britton J. Effect of intravenous magnesium sulphate on airway calibre and airway reactivity to histamine in asthmatic subjects. **Br J Clin Pharmacol** 1996;42:629-631.
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Vitamin D

- More time spent indoors as a society has led to less sunlight exposure and more vitamin D deficiency[1]
- Asthma is widely thought to be an "over immune response" in the airways and vitamin D has been shown to be an immune system regulator[2,3]
- Vitamin D in the fetus is responsible for the development of the bone, immune system, brain and lungs[4]
- Vitamin D helps the immune system function more correctly and may help to reduce asthma exacerbations and upper respiratory tract infections[1]
- Illnesses associated with low Vitamin D:
    - Rickets
    - Osteomalacia
    - Osteoporosis
    - Heart disease
    - Hypertension
    - Autoimmune diseases
    - Certain cancers
    - Depression
    - Chronic fatigue
    - Chronic pain

Refereces:

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4. Nguyen M, Trubert CL, Rizk-Rabin M, Rehan VK, Besancon F, Cayre YE, et al. 1,25-Dihydroxyvitamin D3 and fetal lung aturation: immunogold detection of VDR expression in pneumocytes type II cells and effect on fructose 1,6 bisphosphatase. J Steroid Biochem Mol Biol 2004;89-90:93-7.

Yeast Overgrowth

- Antibiotic therapy, diets that contain refined sugars and processed ingredients, and weakened immune systems can make you prone to yeast overgrowth[1]

- Asthma is widely thought to be an “over immune response” in the airways

- Referneces:
  1.