9.72 Vitamin B₆ Deficiency & Toxicity

Vitamin B₆ deficiency is rare, but symptoms include:

- Skin or scalp ailments (seborrheic dermatitis)
- Microcytic hypochromic anemia (small cells, low color)
- Convulsions
- Depression
- Confusion

Given what we know about the functions of vitamin B₆ most of these symptoms make sense.

The microcytic hypochromic anemia is a result of decreased heme synthesis. The neurological symptoms are due to the decreased production of neurotransmitters¹.

Vitamin B₆ unlike many of the B vitamins can produce toxicity. High doses of vitamin B₆ taken for an extended period of time can lead to neurological damage². There are some potential uses of vitamin B₆ supplementation that are important to be done with consultation with a physician.

One of the conditions that people take vitamin B₆ for is carpal tunnel syndrome. The following video does a nice job of explaining and showing how this condition occurs.

**Web Link**

*Video: Carpal Tunnel Syndrome (1:02)*

While the evidence isn't conclusive, it appears that vitamin B₆ supplementation may be beneficial to those suffering from carpal tunnel syndrome and may be tried alone, or in combination with other complementary treatments, before surgery is undertaken³,⁴.

Morning sickness that occurs early in pregnancy is another condition where vitamin B₆ supplementation is utilized. The evidence again is not clear on whether it is beneficial⁵,⁶, but the American College of Obstetricians and Gynecologists makes the following recommendation:

"Treatment of nausea and vomiting of pregnancy with vitamin B₆ or vitamin B₆ plus doxylamine is safe and effective and should be considered first-line pharmacotherapy⁷."

The recommendation above received a level A rating, which is the highest level of recommendation that they believe is based on "good and consistent evidence⁷".
The last condition that vitamin B₆ is commonly supplemented for is premenstrual syndrome (PMS). A recent systematic literature review found that it is inconclusive whether vitamin B₆ supplementation is beneficial in managing PMS⁸.

References & Links

Video
Carpal Tunnel Syndrome - http://www.youtube.com/watch?v=rewDQgqU5Hg