Thiamin deficiency is rare in developed countries, but still occurs in poorer countries where white (aka polished) rice is a staple food. During the polishing process thiamin, and many other nutrients, are removed. Some people also have a mutation in their THTR1 that causes them to become thiamin deficient\(^1\). Thiamin deficiency is known as beriberi, which translated means "I can't, I can't." The symptoms of beriberi are illustrated in the link below.

There are two major forms of beriberi: dry & wet. Dry beriberi affects the nervous system, with symptoms such as loss of muscle function, numbness, and/or tingling. Wet beriberi affects the cardiovascular system resulting in pitting edema, along with enlargement of the heart\(^1\). A picture of a person with beriberi is shown below.

Another group that is at risk for thiamin deficiency is alcoholics. There are three reasons why alcoholics are prone to becoming deficient\(^3\):

1. Alcohol displaces foods that are better sources of thiamin
2. Liver damage decreases TPP formation
3. Increased thiamin excretion

The thiamin deficiency found in alcoholics is known as Wernicke-Korsakoff Syndrome. Symptoms of this condition include paralysis or involuntary eye movement, impaired muscle
coordination, memory loss and confusion\textsuperscript{3}. The following video shows some of the symptoms of this condition.

**Web Link**

**Video: Wernicke-Korsakoff Syndrome (First 1:50)**

Thiamin toxicity has never been reported as a result of oral intake. Thus, there is little worry about thiamin toxicity\textsuperscript{4}.

**References & Links**


**Links**

Beriberi - http://www.moondragon.org/health/graphics/beriberi1.jpg
Wernicke-Korsakoff Syndrome - http://www.youtube.com/watch?v=wDcyBXJAZNM