Chromium

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Chromium was named after the Greek word "chroma" due to the characteristically intense colors of the chromium compounds.

Chromium is a trace element essential to the metabolism of fats we consume (*e.g.* cholesterol), as well as carbohydrates, that are broken down in our body to the simple sugar, glucose. As a result, chromium is involved in insulin regulation, and hence important in the prevention and treatment of adult-onset diabetes.

The long-term effects of a sub-optimal intake of chromium in the diet has been related to

1) A decrease in tissue chromium levels associated with progressive aging, and,

2) An increased incidence of all forms of diabetes and atherosclerosis.

How is chromium deficiency associated with atherosclerosis? Tissues of humans who have died of heart disease have been found to have less chromium than tissue of humans who died of accidental causes. Also, in those patients with atherosclerotic plaque who died of heart disease, no detectable concentrations of chromium were found in their tissue.

In addition, chromium along with selenium, copper, potassium, magnesium, and calcium reduces the risk of cardiovascular disease by having a beneficial effect on serum cholesterol and triglyceride levels.

Chromium may also be important to the health of the skin.

Food sources of chromium include: brewer's yeast, nuts, molasses, cheese, and most whole grains. Since the amount of chromium found in the diet may often times be inadequate to supply one's daily chromium requirement, chromium supplementation may be warranted. In general, 200 micrograms a day of chromium from a dietary supplement is a reasonable amount to supplement the diet.

The current recommended dietary allowance (RDA) for chromium for healthy individuals consuming a mixed North American diet is

Children	200 mcg.
Males (11-18)	200 mcg.
Males (adults)	300 mcg.
Females	300 mcg.
Females (post menopause)	300 mcg.

Pregnant	300 mcg.
Lactating (1st 6 mos.)	300 mcg.

Chromium References

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3. Recommended Dietary Allowances, 10th Edition. National Research Council. National Academy Press: Washington, D.C., 1989