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Chromium in diet

Chromium is an essential element that is not made by the body. It must be obtained from the diet.

Function

Chromium is important in the breakdown of fats and carbohydrates. It stimulates fatty acid and cholesterol synthesis. They are important for brain function and other body processes. Chromium also aids in insulin action and glucose breakdown.

Food Sources

The best source of chromium is brewer's yeast. However, many people do not use brewer's yeast because it causes bloating (abdominal distention) and nausea. Meat and whole grain products are relatively good sources. Some fruits, vegetables, and spices are also relatively good sources.

Other good sources of chromium include the following:

- Beef
- Liver
- Eggs
- Chicken
- Oysters
- Wheat germ
- Broccoli

Side Effects

Lack of chromium may be seen in people with impaired glucose tolerance. It occurs in older people with type 2 diabetes and in infants with protein-calorie malnutrition. Taking a chromium supplement may help improve insulin resistance but is not recommended as the sole treatment for people with diabetes.

Because of the low absorption and high excretion rates of chromium, toxicity is not common.

Recommendations

Dosages for chromium, as well as other nutrients, are provided in the Dietary Reference Intakes (DRIs) developed by the Food and Nutrition Board at the National Academies of Sciences, Engineering, and Medicine. DRI is a term for a set of reference intakes that are used to plan and assess the nutrient intakes of healthy people. These values, which vary by age and sex, include:

- **Recommended Dietary Allowance (RDA)**: The average daily level of intake that is enough to meet the nutrient needs of nearly all (97% to 98%) healthy people. An RDA is an intake level based on scientific research evidence.
- **Adequate Intake (AI)**: This level is established when there is not enough scientific research evidence to develop an RDA. It is set at a level that is thought to ensure enough nutrition.

The AIs for chromium are as follows:

Infants

- 0 to 6 months: 0.2 micrograms per day (mcg/day)
- 7 to 12 months: 5.5 mcg/day

Children

- 1 to 3 years: 11 mcg/day
- 4 to 8 years: 15 mcg/day
- Males age 9 to 13 years: 25 mcg/day
- Females age 9 to 13 years: 21 mcg/day

Adolescents and adults

- Males age 14 to 50: 35 mcg/day
- Males age 51 and over: 30 mcg/day
- Females age 14 to 18: 24 mcg/day
- Females age 19 to 50: 25 mcg/day
- Females age 51 and older: 20 mcg/day
- Pregnant females age 19 to 50: 30 mcg/day (age 14 to 18: 29 mcg/day)
- Lactating females age 19 to 50: 45 mcg/day (age 14 to 18: 44 mcg/day)

The best way to get the daily requirement of essential vitamins is to eat a balanced diet that contains a variety of foods from the food guide plate.

Specific recommendations depend on age, sex, and other factors (such as pregnancy). Women who are pregnant or producing breast milk (lactating) need higher amounts. Ask your health care provider which amount is best for you.

Alternative Names

Diet - chromium

References

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Updated by: Stefania Manetti, RD/N, CDCES, RYT200, My Vita Sana LLC - Nourish and heal through food, San Jose, CA. Review provided by VeriMed Healthcare Network. Also reviewed by David C. Dugdale, MD, Medical Director, Brenda Conaway, Editorial Director, and the A.D.A.M. Editorial team.