

Chromium

Biologically active is Cr^{3+} , Cr^{6+} is toxic.

Function

The trivalent form of chromium is used as a glucose tolerance factor. It stimulates the action of insulin and increases glucose tolerance. It increases HDL levels in healthy people.

Conversely, professional exposure to **hexavalent chromium** has allergic effects and is carcinogenic.

Sources

Sources of chromium can be:

- yeast (brewer's);
- meat;
- cheeses, wheat germ and nuts.

Recommended daily dose

The recommended daily dose of chromium is **150-200 μg** .

Deficiency

Chromium deficiency can result in:

- reduced glucose tolerance to type 2 diabetes mellitus;
- hyperlipidemia;
- acceleration of atherosclerotic changes.

Toxicity

It is mainly hexavalent - it easily passes through membranes and connects DNA → DNA-DNA crosslinks – contributing to mutagenesis. It enters the body through emissions from the air and damages the respiratory tract, conjunctiva, and kidneys.

Links

Related articles

- Trace elements

External links

- Chrom (Czech Wikipedia)
- Chromium (English wikipedia)

Source

- BENEŠ, Jiří. *Studijní materiály* [online]. ©2007. [cit. 2009]. <<http://www.jirben.wz.cz/>>.

Used literature

- SCHNEIDERKA, Petr. *Kapitoly z klinické biochemie*. 2. edition. Karolinum, 2004. ISBN 80-246-0678-X.



Chromium in periodic table



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