

Chrome

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

Function

Trivalent form of chromium is used as a glucose tolerance factor. It stimulates the effect 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.

Source

The source of chromium might be:

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

Recommended daily intake

Recommended daily intake of chrome is **150-200 μg** .

Deficiency

Chromium deficiency can result in:

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

Toxicity

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

Links

Related articles

- Trace elements

External links

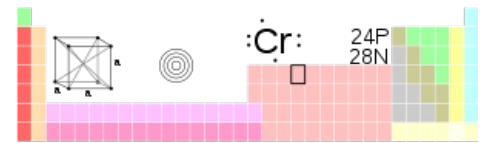
- Chrom (česká wikipedie)
- Chromium (anglická wikipedie)

Source

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

Reference

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



Chromium in periodic table



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