

1 Tips on Chromium (VI)

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3 Chromium is a metal that naturally occurs in the Earth's crust. It exists in several forms. Chromium  
4 (VI) is toxic to humans, while chromium (III) is an essential nutrient found in many foods. Chromium  
5 (VI) is found in tobacco smoke and is used in chrome plating, dyes, leather tanning, and wood  
6 preservatives. It can contaminate air, water, and soil.

7 Acute ingestion of chromium (VI) can cause intravascular hemolysis, acute renal failure, and GI  
8 tract ulcers. Chronic inhalation can cause nasal septum ulcers and asthma and has been  
9 associated with nasal and lung cancer. Chronic dermal exposure can cause allergic dermatitis and  
10 skin ulcers.

11 Blood and urine chromium tests have limited clinical use because they cannot differentiate  
12 chromium (VI) from other forms and cannot predict health effects.

13 Treatment is primarily supportive, and ongoing exposure should be avoided or reduced when  
14 possible.

15 Counsel patients to avoid tobacco smoke and choose safe places for children to play that are away  
16 from contaminated environments. Advise patients who work with chromium (VI) that employers are  
17 responsible for informing them of their workplace hazards, providing proper PPE, and ensuring that  
18 workspaces are well-ventilated. Counsel these patients to use proper PPE, keep their work areas  
19 clean, and shower and change their clothes and shoes before returning home. Consult a specialist  
20 in occupational and environmental medicine regarding a monitoring plan as needed.

21 Visit ATSDR's website to learn more.