



ALUMINUM

Sources, Detection & Effects

Compliments of Dr. Donna F. Smith

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Sources Of Aluminum

- beverages from aluminum cans (soda pop and beer)
- food cooked in aluminum cookware
- use of aluminum-containing antacids
- use of anti-perspirants.
- drinking water (aluminum is frequently added to municipal water)
- baking powders
- drying agents in salt and other products
- processed cheese
- bleached flour
- fluoridated water increases leaching of aluminum from aluminum pots and pans.



Today children are often born with elevated aluminum that is passed from mother to fetus through the placenta.

Detection Of Aluminum

There is debate whether blood testing for aluminum has much value. Blood levels definitely do not indicate total body load of aluminum.

Hair aluminum levels appear to correlate well with bone levels of aluminum. Several hair tests may be needed before aluminum is revealed on the test. This is because the aluminum may be tightly bound within body tissues, and several months on a nutrition program may be required to mobilize the aluminum.



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How Aluminum Affects Health

Nervous System: in animal studies, aluminum blocks the action potential or electrical discharge of nerve cells, reducing nervous system activity. Aluminum also inhibits important enzymes in the brain (Na-K-ATPase and hexokinase). Aluminum may also inhibit the uptake of important chemicals by nerve cells (dopamine, norepinephrine, and 5-hydroxytryptamine).

Behavioral Effects: dementia resulting from kidney dialysis related to aluminum toxicity causes memory loss, loss of coordination, confusion and disorientation.

Digestive System: aluminum reduces intestinal activity, and by doing so can cause colic.