

### Average Intake of Aluminum from Food by Americans

ACCORDING TO THE AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY (ATSDR) THE MINIMAL RISK LEVEL (MRL) OF ALUMINUM HAS BEEN ESTABLISHED AT 2.0 MG/KG/DAY OR APROXIMATELY 140,000 MCG OR 140 PARTS PER MILLION (PPM). EXPOSURES ARE FROM FOOD, AIR, AND WATER. THE FOLLOWING ARE THEIR VALUE LEVELS OF AVERAGE INTAKE OF ALUMINUM FROM FOOD BY AMERICANS. 1000 MCG=1 PART PER MILLION

| SOURCE                |             | QUANTITY (PPM)             |
|-----------------------|-------------|----------------------------|
| NATURAL SOURCES       |             | 3-10                       |
| FOOD ADDITIVE         |             | 25-50                      |
| ALUMINUM PANS         |             | 2.5                        |
| DRINKING WATER        |             | 1.0                        |
| FOOD GROUPS:<br>GRAIN |             | QUANITITY PER 100G<br>FOOD |
|                       | RICE        | .073-.210                  |
|                       | BROWN RICE  | .120-.430                  |
|                       | WHEAT       | .460-.960                  |
| MEAT                  | BEEF        | .026-.260                  |
|                       | PORK        | .110-.280                  |
|                       | CHICKEN     | .190-.670                  |
| VEGETABLES            | RADISH      | .260                       |
|                       | POTATO      | .250                       |
| OTHER                 | CARROT LEAF | 7.30                       |
|                       |             |                            |
|                       |             |                            |
|                       |             |                            |

DR. DODD'S COMMENTS: I have many challenges to this data.

1.ALUMINUM SOURCES. The listed food and water sources do not indicate location source. I have found foodstuffs and water from clay soil exposed to Acid Rain, have a much higher content of aluminum. Acid Rain chemically frees the bound aluminum in clay to be a free agent to be taken up by roots of the plants and filter down into the underground aquifers.

Nothing is mentioned of certain food groups, (and grossly lacking from the table), known to be concentrators of aluminum: i.e. Cereal crops such as corn, wheat, oats, barley, rice and Legumes: alfalfa herbal supplements, soybeans, peas, beans and string beans. We have found these crops grown in clay soils exposed to acid rain will concentrate the aluminum in their tissues 100 fold over other crops.

Aluminum content in water varies immensely; municipal (tap water) is treated with aluminum hydroxide to precipitate out solids and retains the aluminum in the drinking water. Each municipal water plant establishes its own levels of how much aluminum hydroxide to use. Wells located in clay soils drainage would also have very high aluminum content. Bottled spring water sources vary in aluminum content again with location source. Renal dialysis patients have developed Senile Dementia when municipal water was used in the dialysis treatment. These findings have been published in the Lancet. Other important sources not mentioned: antacids, anti-perspirants, buffered aspirin, vaginal douches, antidiarrheal drugs, pickling salts, hemodialysis, drying agents, cosmetics, aluminum pop and beer cans (a BIG SOURCE IN OUR CULTURE! the phosphoric acid leaches the aluminum from the can into the liquid), paints, all bread and pastries, cake mixes, processed cheese, baking powder, food starch modifiers, anti-caking agents, foods wrapped with aluminum foil and along with mercury, as a preservative in vaccinations. Researchers find the majority of the human population in industrialized nations ingest a minimum of 30 to 50 mgms daily, but we get aluminum by inhalation as well. Inhalation sources: clay cat litter, talcum powder, cement, asphalt mixes, tobacco smoke and ashes contain aluminosilicates. They go directly to the brain through the olfactory and respiratory system via vascularized mucous membranes in the nasal and bronchial tissues.

2. MRL given by the ATSDR is open to challenge also. Numerous sources of research (please see referenced list) have found much lower values than 140 PPM to be the average tolerable levels for people.

Much lower levels of aluminum tolerance would depend upon the person's age, medical history, and environmental health hazards. The very young, and the very old tolerate the least amount of aluminum; people with kidney, liver, heart and immune system impairments would be affected by much lower values of aluminum. Dr. Jeffrey Bland, Professor of Nutritional Biochemistry at the Univ. of Puget Sound in Tacoma, WA. and Director of the Bellevue-Redmond Medical Labs has found in his clinical experience that hair aluminums above 60 PPM are highly significant in terms of elevated body burdens, other labs are reporting a low toxic level under 10 PPM and borderline toxicity between 10 and 20 and toxicity above 20 PPM.

Elizabeth Reese, MD, reports hyperactivity and psychotic adolescents between 12 and 18 years of age subjected to hair analysis showed aluminum ranging from 29 to 87 PPM. Adults with psychosis, depression loss of hair, brittle hair and behavior or learning disabilities were related to hair aluminum levels at or below 130 PPM. She has also found a high correlation of aluminum to mental disease: paranoia, schizophrenia, and dementia.

Dr. Dr.R.Crapper-McLachlan of the Univ. of Toronto, Dr. Daniel Perl, Vermont College Of Medicine, Dr. Jarvik of U. of Calif, Dr. Leopold Liss of Ohio State, Dr. Richard Casdorph, U C Medical School and many others have found chelation of aluminum from Alzheimer patients have produced marked improvement in their patients.

Dr. Eck (with medical researchers), at ARL labs in Phoenix Arizona has published his work on aluminum and has found no tolerable levels (as found in hair content) in humans.

For 31 years, I have been conducting research correlating illness with aluminum content in hair analysis, and aluminum levels in food and water consumed by horses, dogs and cats. I have found no tolerable levels in the dog and cat and in the horse (average weight 1500 pounds) to be 49 mg%. During these 18 years I have found increasing toxic levels of aluminum in foods, water and in hair analysis of sick animals as the pollution of our environment has worsened.

Therefore I take serious issue with the report and tolerable levels of aluminum in man as established by ATSDR.

References:

Gloria Dodd DVM website [www.holisticvetpetcare.com](http://www.holisticvetpetcare.com), published 3 part article research results, "Chronic Heavy Metal Poisoning- The Silent Killer"

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Mineral Tolerance of Domestic Animals, National Academy of Sciences, 1980