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Recent research shows that aluminium oxide which is a heavy metal, can do far more damage to humans and plants than once thought. In soils it stops ryegrass roots from going down, so they grow horizontally which makes them vulnerable to droughts and being pulled out by grazing cattle.

Some vaccines contain aluminium (Al), so be aware of them because they may pose very significant health risks.

Aluminium is a poison easily absorbed by the body from several sources such as Al cooking utensils, drink cans, especially when drunk from, and from town waters (added to make the water clearer), and can be fatal in excessive amounts.

Aluminium toxicity increases the development of bone disorders, including fractures, renal failure and Alzheimers's.

Marijah McCain ND's personal experience: About 6 years ago, I had my hair analysis done. The tests showed a very high aluminium content in my body. This alarmed me, because high aluminium has been linked to Alzheimer's disease and other degenerating illnesses related to the nerves and brain. I had no symptoms, but I decided I would work at bringing the aluminium down. I stopped all drinks in aluminium cans, stopped using table salt, some of which contains aluminium. I got Himalayan salt, and stopped all use of deodorant products that contained aluminium. I did herbal cleansings and homeopathic aluminium detox treatments. Four years later, I had another hair analysis done. The aluminium had dramatically decreased and was now normal. Even though aluminium is known to accumulate in the body, I am proof that the body can reduce it. The danger with the metal accumulations is that it interrupts the proper cellular functions. This can lead to cancer and many other mysteriously degenerating ailments. Hair Analysis is an excellent tool that you can use to prevent diseases of the future as well as finding current problems.

Aluminium is generally not regarded as an essential element and there are no benefits of this mineral documented. It is, however, consumed by the average person mostly from processed foods such as pancakes, biscuits, cakes and waffles, as it is present in anti-caking agents, emulsifiers, thickeners and stabilisers. Al can also be found in drinking water and tea leaves (tea plants take up large amounts of Al), and intake can also be from drinking beverages out of Al cans. The absorption of Al, like many other minerals, does not usually correlate with intake: it may be enhanced in the presence of organic acids. Although tea leaves have a high Al content, it is mostly bound to organic complexes and therefore poorly absorbed.

Recent research has shown that a dietary intake of large amounts of Al in the past, increases the risk of developing Alzheimer's Disease in later life. Alzheimer's Disease is age-dependent and Al absorption has been found to increase with age. This, together with knowledge that changes in the blood-brain barrier occurs as age increases, has led to the speculation of Al being a contributory cause of Alzheimer's.

The most serious problem of aluminium toxicity involves patients with end-stage chronic renal failure managed by long-term intermittent hemodialysis. It can cause neurological disturbance known as dialysis encephalopathy syndrome (DES).

The symptoms include memory loss, malaise, tremor, jerking movements, depression and anxiety. A toxin in the untreated tap water used for dialysis is suspected to be the cause.

Aluminium poisoning has also been linked to Alzheimer's disease, a progressive neurodegenerative disorder associated with dementia. Higher concentrations of aluminium have been found in brain tissue of patients dying of Alzheimer's disease.

Health researchers have found that there could be a possible link between aluminium & the development of the following conditions (though findings are not conclusive) :

1. Alzheimer's disease - people with the disease have a higher level of aluminium in the brain.

2. Dementia in kidney dialysis patients - having to expose to high levels of aluminium in dialysis fluids & medication, people undergoing dialysis could develop dialysis encephalopathy, a form of dementia.

3. Lou Gehrig's disease & Parkinson's disease - exposure to high levels of aluminium is said to contribute to the development of this neurological disorder.

People with kidney failure are unable to excrete Al.

5. Aluminium in drinking water should be less than 50 µg L⁻¹. Silicon is relevant to aluminium toxicity and, therefore, the water silicon concentrations should be monitored in parallel.

6. The aluminium content should be declared in all food preparations and pharmacological products.

7. Citrate-containing compounds appear to increase the bioavailability of ingested aluminium. Therefore, particular care should be taken to avoid these compounds in combination with Al-containing drugs. With citric acid, the enhanced gastrointestinal absorption may be compensated for by a parallel increase in urinary Al excretion, where there is good renal function.

10. Magnesium depletion is considered a high risk for aluminium accumulation especially during pregnancy and in the neonate with possible consequent problems for normal development and growth. Magnesium depletion is also common with aging.

11. Iron depletion is considered a high risk for aluminium accumulation

The uptake of aluminium can take place through food, through breathing and by skin contact. Long lasting uptakes of significant concentrations of aluminium can lead to serious health effects, such as:

- Damage to the central nervous system
- Dementia
- Loss of memory
- Listlessness
- Severe trembling

Aluminium is a risk in certain working environments, such as mines, where it can be found in water. People that work in factories where aluminium is applied during production processes may endure lung problems when they breathe in aluminium dust. Aluminium can cause problems for kidney patients when it enters the body during kidney dialyses.

Inhalation of finely divided aluminium and aluminium oxide powder has been reported as a cause of pulmonary fibrosis and lung damage. This effect, known as Shaver's Disease, is complicated by the presence in the inhaled air of silica and oxides of iron. May also be implicated in Alzheimer's disease.

Some restaurants use aluminium cookware because it's cheap. Sometimes recipes state to use a "non-reactive" saucepan; this is particularly important for tomato sauce. Aluminium will leach out in even greater amounts with acid foods and can give food a bad taste.

It's easy to avoid cooking in or using aluminium in products because we have alternatives to use personally. The struggle is finding the right alternative (like finding an deodorant that works) and being cautious about things out of our control (eating out, for example).

Aluminium can be found in-

- Cookware
- Significant amounts of aluminium can be absorbed through the skin when anti-perspirants are used daily.
- Aluminium foil
- Things we eat
- Baking powder - buy a non-aluminium baking powder
- Some salt

- Tap water - use a filter
- Aluminium canned foods - particularly important to choose tomatoes that are in enamel-lined cans because tomatoes react with the Aluminium Cans. Aluminium Cans Beer and soft drink cans are made exclusively from aluminium. Since these beverages are often highly acidic, even one beer or cola drink per day can lead to aluminium toxicity in susceptible individuals over a period of time.
- Cosmetics-Aluminium is also used as a base for various paints and cosmetics.

Be on the safe side, with all this exposure to aluminium, take simple steps to avoid this potential danger in daily lives by switching to a safe deodorant, using fresh foods over canned, using lined cans, filtering drinking water, getting non-alum baking powder and using products that choose non-alum, and using softer cookware.

This is a problem in many regions of the world, due not only to natural weathering cycles, but also to the continuous cropping and farming of fragile soils (Clark, 1982). In Australia, intensification of agricultural practices has increased soil acidity and this can lead to an increase in active Al levels (Davidson, 1987). In Europe, the use of large quantities of nitrogenous fertilisers is causing the slow acidification of many low buffered soils.

Alzheimer's and Parkinsons diseases can be brought on and or accentuated by aluminium in any form. Wash your hands after handling it.

Al is not needed for any purpose, so a deficiency is unlikely, but an excess can increase bone fractures, mental and nervous problems, memory loss, trembling and Alzheimer's. Children with high Al levels can suffer mental problems. Everyone, and especially pregnant mothers, should avoid using Al cooking utensils and consuming from Al drink cans. It has been recommended for decades that humans avoid using Al cooking utensils, but some people still do, and don't know to avoid using aluminium foil for wrapping food and drinking out of aluminium cans.

Water, foods, skin applications, injections and medicines containing Al should be avoided.

Aluminium toxicity is a risk to workers in mines, and where aluminium is applied during production processes, and they may suffer lung problems if they breathe in aluminium dust. Aluminium can cause problems for kidney patients when it enters the body during kidney dialysis. Inhalation of finely divided aluminium and aluminium oxide powder has been reported as a cause of pulmonary fibrosis and lung damage known as Shaver's Disease.

If unsure of the above do a search for "Aluminium"+"toxicity".

Excess Al impairs bone growth and fluoride absorption in humans and can cause dental problems and other human disorders. When Al is high and Ca is low, the Al goes to the brain. Alzheimer's disease sufferers have high Al in their brain.

Aluminium and lungs

Coughs that won't go away, sore throats and head and upper chest congestion are not uncommon. Your body does not want this metal embedding itself in your respiratory tract. It becomes an irritant.

Aluminium is a known neurotoxin, and scientific evidence shows that it can play a significant role in neurological diseases, including dementia, autism, and Parkinson's disease.

For example, a case study from Keele University in the UK1 published last year unequivocally showed high levels of aluminium in the brain of an individual exposed to aluminium at work, who later died from Alzheimer's disease.

Most people are not exposed to toxic levels of aluminium at work however. Rather exposure occurs via common products such as antiperspirants, food, aluminium-based household products, and vaccines.

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*Queen's honour for services to the farming industry.

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