



## Aluminum

### Introduction

Risk factors are characteristics of people, their lifestyle and environment that contribute to the likelihood of getting a disease. They can include family genetics. Some risk factors can be modified (for example, lowering one's blood pressure); other risk factors can not be modified (for example, one's age or one's genes).

Most researchers no longer regard aluminum as a risk factor for Alzheimer's disease. However, some researchers are still examining whether some people are at risk because their bodies have difficulties in handling foods containing the metals copper, iron, and aluminum.

### What is aluminum?

We usually think of aluminum as a light silvery metal used to make pots and pans, airplanes or tools, but it also has a non-metallic form. This form of aluminum makes up eight per cent of the earth's surface.

### Where is it found?

#### In the environment

Aluminum in its non-metallic form is found everywhere. Because it is in the earth, it occurs naturally in the foods we eat. It is found in drinking water as a natural component and in some municipalities as an additive in the water treatment process. Aluminum is added to many food products during the manufacturing process. Some cosmetics contain aluminum. It is also used in some drugs to increase their effectiveness or make them less irritating. Aluminum is present in the air we breathe as a result of dry soil, smoke, and sprays.

#### In the body

Aluminum is present in the body, but its role is not fully understood. Very little of the aluminum taken in by a healthy individual is actually absorbed; most is flushed out of the body by the kidneys.

### What has led some scientists to believe there is a connection between aluminum and Alzheimer's disease?

Aluminum has been studied for over 40 years as a substance that might be linked to Alzheimer's disease. However, there have been many conflicting findings.

Some studies show increased levels of aluminum in the brains of people with Alzheimer's disease while others do not.

Research has not found an increased incidence of Alzheimer's disease in people with occupational exposure to aluminum.

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Tea is one of the few plants whose leaves accumulate large amounts of aluminum that can seep into the brewed beverage. However, there is no evidence that Alzheimer's disease is more prevalent in cultures that typically drink large amounts of tea.

Unfortunately, earlier animal studies focused on one animal that is particularly susceptible to aluminum poisoning, thus leading to incorrect conclusions about the general effects of aluminum on the body.

### **What about the pots and pans?**

It would be difficult to significantly reduce exposure to aluminum simply by avoiding the use of aluminum cookware, foil, beverage cans and other products. Even if aluminum were clearly implicated in the development of Alzheimer's disease, these means of exposure contributes only a very small percentage of the average person's intake of aluminum.

### **In summary**

At this point, there is no convincing evidence that aluminum increases a person's risk of developing Alzheimer's disease.

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