

ALUMINIUM AND HEALTH

Fact sheet 5

ALUMINIUM IN MEDICINES

Medical practitioners have been prescribing large amounts of aluminium compounds to their patients for many years and much greater amounts are taken in non prescription drugs as regulatory authorities conclude that such medication can be made safely available without prescription.

The main aluminium compound used in medicine is aluminium hydroxide. This is used as an antacid in the treatment of gastric ulcers and as a phosphate binder in cases of long-standing renal failure. Alternative antacids do exist but they are not all as effective.

Aluminium compounds are particularly effective, safe antacids. Several studies that have been undertaken comparing those who have taken large quantities of aluminium hydroxide as antacids with control subjects, have found no adverse effects (such as increased incidence of Alzheimer's Disease).

The long term administration of oral aluminium antacids to patients with renal failure has the tendency to increase the level of serum aluminium.

In modern dialysis aluminium build up in the body is not a problem, indeed aluminium hydroxide is sometimes given to these patients to stop them from absorbing unwanted phosphate from the intestines. Aluminium will bind this to form insoluble aluminium phosphate.

Aluminium compounds are also used in antiperspirants, antiseptic solutions and as adjuvants in vaccines. Aluminium is not known to produce any adverse effects and is recognised for such use by the WHO.

See separate fact sheets on vaccines and cosmetics.

References :

Colin-Jones D, Langman MJ, Lawson DH, Vessey MP – Alzheimer's Disease in antacids users . The Lancet ; I ; 1989 ; 1453.

Flaten T. P, Glatre E., Soreide O. 1991. Mortality from dementia among gastro duodenal ulcer patients. J. Epidemiol. Community Health 45:203-206