

Advice 35-2009 of the Scientific Committee of the FASFC on the estimation of the dietary intake of cadmium by the Belgian population

Cadmium (Cd) is mainly an environmental contaminant, which on one hand, is naturally present in the environment and on the other hand, may originate from industrial and agricultural sources. Food is the main source of cadmium exposure for the non-smoking and the non-occupationally exposed part of the population. Cadmium is particularly toxic to the kidneys. Recently, a tolerable weekly intake (TWI) of 2.5 µg/kg body weight (bw) was established by EFSA (2009).

The Scientific Committee was requested to estimate the exposure of the Belgian population to cadmium and to determine the contribution of different food categories to the exposure.

Based on consumption data from the Belgian food survey (2004) and results from the Cd analyses control in the framework of the control program from FASFC for 2006, 2007 and 2008, average and 95th percentile dietary exposure to cadmium of the Belgian adult population were estimated at 1.27 µg/kg bw/week and 2.80 µg/kg bw/week, respectively. The mean and 95th percentile dietary exposure of children was estimated at 4.09 µg/kg bw/week and 7.3 µg/kg bw/week.

Dietary exposure to cadmium for specific consumer groups such as consumers which follow the food recommendations for the consumption of vegetables and fish and for people who eat food produced in a contaminated area is higher than the general adult population and approaches or even exceeds the TWI of 2.5 µg/kg bw/week. The same applies to children.

Cereals (including pasta) and potatoes are the main food groups that contribute to cadmium exposure. The Scientific Committee consider that efforts should be made to limit exposure through vegetables, potatoes and cereals, especially pasta.

The Scientific Committee recommends to analyze cadmium in cereals and cereal products (bread, pasta, biscuits, breakfast cereals, ...), distinguishing the finer products (eg white bread) with whole meal product. The Scientific Committee also recommends to analyze other foods that may contain large quantities of cadmium as wild mushrooms, nuts, including pine nuts, and derived oil.

The full text is available on this website in dutch and in french, respectively under the section "Wetenschappelijk Comité/Adviezen" and "Comité scientifique/Avis".