

Dioxin and PCB contents in game meat do not pose a health risk

BfR opinion No. 048/2011 from 16 May 2011

Game is among the foods which in some cases contain high levels of dioxins and PCB. On the basis of new data on dioxin and polychlorinated biphenyl (PCB) contents in muscular meat and in the liver of boars, roe and fallow deer as well as hares living in the wild, the Federal Institute for Risk Assessment (BfR) has assessed the health risk for consumers. Findings: The BfR assessment is based on the assumption that the average consumer eats two meals of game per year. Frequent eaters may have roughly 10 meals of game per year. There is no health risk for these groups of the population. However, people who regularly eat one to two meals of game per week (up to 90 game meals per year), as hunters and their families and people closely associated with them, a health risk is possible, if the meals frequently include organs (especially liver) with high dioxin and PCB contents. If only muscular meat is eaten, then even for this group of the population (90 meals per year) there are no health risks.

The Ministry of Environment, Nature Protection and Reactor Safety (BMU) recommends that organs of any types of animals living in the wild are eaten only at a frequency of every two to three weeks, since the organs of wild animals in some cases contain high dioxin and PCB levels. The BfR has investigated whether the recommendation of the BMU also sufficiently protects hunter families who generally eat much greater quantities of game. The institute is of the opinion that this is the case. Even consumers who eat game meat several times per week can eat organs (e.g. liver) from game every two to three weeks without putting their health at risk.

The BfR based its health risk assessment on the tolerable weekly intake (14 pg WHO-PCDD/F-PCB-TEQ per kilogramme of bodyweight) as defined by the Scientific Committee on Food of the EU. For the purpose of estimating exposure, the BfR referred to various consumption studies: the National Consumption Study II of the Max Rubner Institute, the VELS Study on determining consumption quantities in children and a study from Switzerland on the consumption behaviour of hunters and those living in hunters' households. Generally speaking, the available data is insufficient both with regard to consumption quantities and content levels. Therefore the BfR recommends to collect a quantity of data on the dioxin levels of game meat that is representative for the German market and to conduct a survey on game consumption behaviour among German hunter households.

The full version of the BfR Information in German is available on <http://www.bfr.bund.de/cm/343/dioxin-und-pcb-gehalte-in-wild-stellen-keine-gesundheitsgefahr-dar.pdf>