

Advice 09-2010 of the Scientific Committee of the FASFC on carcinogenic and/or genotoxic risks in food: *process contaminants*

The Scientific Committee started a self tasking study on carcinogenic and/or genotoxic risks in food. In a first advice (Sci Com Advice 26-2008), the issue was introduced and an overview of relevant carcinogenic and/or genotoxic contaminants in food was presented. This second advice focuses on the group of "process contaminants", i.e. undesired chemical substances that are formed during food processing, such as heating, fermentation, storage. The dietary exposure to these contaminants (in particular of the Belgian population) and the coupled risk, as well as the gaps in the current knowledge are considered. Other aspects, such as occurrence and formation, toxicity, mitigation, etc. are briefly discussed in the annexe of this advice by means of scientific flash cards.

Based on the available information following relative riskranking is proposed:

- First priority: acrylamide, furan, 3-chloropropanediol (3-MCPD) and the 3-MCPD and glycidol esters;
- Second priority: benzene, 1,3-dichloropropanol (1,3-DCP), N-nitrosamines (NDMA), polyaromatic hydrocarbons (PAHs);
- Third priority: heterocyclic aromatic amines, ethyl carbamate, formaldehyde, semicarbazide, nitro-PAHs.

The proposed riskranking concerns only the presence of these contaminants in food. However, there might be different, and sometimes more important exposure pathways for the considered contaminants. In addition, it is noted that besides the carcinogenic and/or genotoxic effects, other potentially harmful properties of these contaminants could be relevant (e.g. endocrine disrupting properties).

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