

This is provisional English translation of an excerpt from the original full report.

## **Risk Assessment Report Trans Fatty Acids in Foods (novel foods)**

Food Safety Commission of Japan (FSCJ)  
March 2012

### **Executive summary**

The Food Safety Commission of Japan (FSCJ) conducted a self-tasking risk assessment on trans fatty acids in foods, using data and findings obtained through relevant studies, e.g. epidemiological studies on humans, a study of trans fatty acids content in foods, intake estimate of trans fatty acids.

Noting that trans fatty acids can vary in chemical formulas and properties, the FSCJ conducted the risk assessment of trans fatty acids as a whole due to lack of data on individual formulas.

According to results and findings of studies carried out in other countries where the average intake level of trans fatty acids were higher than that in Japan, it was considered that increase in intake of trans fatty acids over or within the range of the average intake would lead to increase of the risk of coronary artery diseases. Likewise, it was suggested that in these countries the higher intake level of trans fatty acids would be related to obesity and allergic diseases but not to other diseases. Moreover, trans fatty acids would likely affect health of pregnant or nursing women and of fetus. By contrast, in Japan, relationship between the current average intake level and incidence risk of these diseases was unclear.

Intake of trans fatty acids in population of Japan is lower than the standard level recommended by WHO, i.e. 1% of the total volume of energy intake. In addition, the average intake level in Japan is below the minimum level at which a human health effect was observed. Therefore, health effects of trans fatty acids in population in Japan, as far as they follow a normal diet, are considered to be little. However, consideration on health risks of trans fatty acids should be given to individuals who follow lipid rich diet and can be guessed to consume trans fatty acids exceeding 1% of total energy intake.

It is desirable to minimize the intake of trans fatty acids, which are not indispensable to humans. However this does not suggest elimination of whole lipid intake, which is of important nutrients, hence well-balanced diet is recommended. While the content of trans fatty acids in the whole of food tends to decline recently, the contents of those in some of food products exceeds 10%. The FSCJ therefore recommends that food industry should make continuous efforts to reduce the content of trans fatty acids in foods.

FSCJ also suggests that risk management authorities should need to closely observe intake amount of trans fatty acids and make endeavor to collect data and findings on disease risks by trans fatty acids in Japanese population. In addition, the authorities should provide relevant risk information.

Concomitantly with decrease in the content of trans fatty acids in foods, contents of several saturated fatty acids are shown to increase. Therefore, FSCJ should draw attention to certain gender and age group of population in Japan, who may consume the saturated fatty acids exceeding the upper bound of target levels as recommended in “Dietary Reference Intakes for population in Japan-2010 edition”.