

CFS announces risk assessment study results on Sterigmatocystin in food

The Centre for Food Safety (CFS) of the Food and Environmental Hygiene Department announced today (August 26) the results of a recently completed risk assessment study on Sterigmatocystin (STC) in food. The CFS collected 331 food samples at the retail level for testing of STC levels with the aim of estimating the exposure of the local adult population to STC through consumption of these food items, and to assess the associated health risks. The study results showed that the health concern for the local population due to dietary exposure to STC from the food items covered in the study is low.

A spokesman for the CFS said, "STC is a mycotoxin that can be formed on food commodities which are contaminated with moulds due to improper storage. The liver and kidneys are the main targets of acute STC toxicity. Animal studies showed that STC may cause cancer to animals upon chronic exposure. The International Agency for Research on Cancer classified it as a group 2B agent, which is possibly carcinogenic to humans."

The 331 food samples taken from local markets for testing of STC levels covered 12 food groups, namely flour, breakfast cereal, dried spices, grains, pasta and noodles, bakery and pastry items, coffee beans, starch substitute, peanuts and tree nuts, cheese, beer and cured meat. The study results showed that only about 10 per cent of the samples (i.e. 32 samples) were found to contain STC, from food groups of flour, breakfast cereal, dried spices, grains, pasta and noodles, bakery and pastry items and coffee beans. Among the 32 samples, 29 samples contained STC at a level of less than 1 microgram/kilogram; while STC was not detectable in all samples of the food groups of starch substitutes, peanuts and tree nuts, cheese, beer and cured meat.

For dietary exposure, according to the level of STC detected in the collected food groups, the estimates of average and high consumers were 0.00017mcg/kg body weight (bw) per day and 0.00033mcg/kg bw per day, with the Margin of Exposure (MOE) values at 940 000 and 480 000 respectively. The European Food Safety Authority considered that an MOE value of 10 000 or higher is of low public health concern. The study results showed that the MOE values for the local adult population were far above 10 000, the health concern due to their STC exposure is therefore considered low. Pasta and noodles was the major contributor to dietary exposure of STC.

The spokesman advised the public to manage the storage conditions of food properly, such as putting food in cool and dry places to prevent fungal infestation in food and reduce the risk of STC contamination.

The Codex Alimentarius Commission has not established any standard for STC in food. The CFS will continue to keep in view the relevant scientific research, risk assessments, regulatory controls and latest developments about

STC in other countries. The study report is available on the CFS website at www.cfs.gov.hk.