COMMITTEE ON TOXICITY OF CHEMICALS IN FOOD, CONSUMER PRODUCTS AND THE ENVIRONMENT

COT statement on potential risks from acrylamide in the diet of infants and young children: lay summary

1. The Scientific Advisory Committee on Nutrition (SACN) is undertaking a review of scientific evidence that will inform the Government's dietary recommendations for infants (0 to 12 months) and young children (1 to 5 years). The Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment (COT) was asked to review the risks of toxicity from chemicals in the diet of infants. This document gives an overview of the potential risks from acrylamide. There are currently no Government dietary recommendations for infants and young children relating to acrylamide.

2. Acrylamide forms naturally in starchy food products during cooking at high temperatures, such as frying, baking, roasting and also during industrial processing. Its presence in food was first reported in 2002, although it is very likely that it has been present in food since cooking began. Acrylamide also has industrial uses, particularly in the production of polyacrylamide. Acrylamide is present in tobacco smoke.

3. The key toxicological effects of acrylamide in laboratory studies are:
   - changes in the genetic material of cells;
   - induction of cancer;
   - damage to the nervous system;
   - alterations in the male reproductive system.

4. Although the results of human studies provide no reliable evidence that acrylamide causes cancer in humans, based on what is known about the way it causes cancer in animals it is possible that it could also cause cancer in humans.

5. The COT assessed the possible health risks arising from acrylamide exposure from different sources. Acrylamide has the potential to pass from the mother's blood into breast milk, but only at very low levels, which are unlikely to represent a risk to the breast-fed infant.

6. For infant formula and foods eaten by infants and young children, the assessment indicated a potential concern for cancer risk as in other age groups. However the currently available scientific information does not allow quantification of any risk. The levels in food do not indicate a concern for the

other effects of acrylamide such as those on the nervous system or reproductive system.

7. The major sources of dietary exposure to acrylamide include potatoes (particularly home cooked potatoes), other cooked vegetables and cereal-containing foods (such as breakfast cereals and sweet biscuits). Dietary acrylamide exposure of infants and young children in the UK is similar to that in other European countries..

8. There have been efforts in the UK and Europe to reduce concentrations of acrylamide in food over recent years, but the evidence so far is not sufficient to demonstrate whether these have resulted in a decrease in dietary exposure. Therefore, efforts to reduce acrylamide exposure should be continued, with respect to both home cooked and commercially produced food.

9. Acrylamide concentrations in soil, water and air are low and therefore exposures from these sources are likely to be low in comparison to dietary exposure. There is a lack of information on potential exposure of infants and young children from some other sources; for example exposure from passive smoking could be an important contributor for some children.

Lay summary to COT Statement 2016/07
November 2016

The full statement is available here:
https://admin.food.gov.uk/sites/default/files/finalacrylamidestatement.pdf