

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



STATEMENT ON THE RESULTS OF MULTIELEMENT SURVEYS

1. We have considered estimates of intakes by adults in the United Kingdom of:

antimony, barium, bismuth, germanium, gold, iridium, palladium, platinum, rhodium, ruthenium, strontium and thallium in the diet;[1]

antimony, barium, bismuth, germanium, gold, strontium and thallium in certain dietary supplements (not including germanium supplements),[2] and in marine fish and shellfish;[3]

antimony, indium and thallium in vegetables and milk collected near potential point sources of pollution.[4]

The estimates of intakes have been made available to us in draft Food Surveillance Information Sheets.[1-4]

2. We have been provided with the available information on the toxicology of these elements relevant to their oral administration or ingestion. In evaluating the implications for human health, we *note* the following assumptions and limitations:

- a) the chemical forms of the elements in food are not known. The relevance of the available toxicity data is therefore uncertain;
- b) the estimates of intake assume that, where an element has not been detected, it is present at the limit of detection. Intakes in these cases are therefore dependent on the limit of detection (or other limit) assigned and can be regarded as overestimates, possibly by a considerable margin;
- c) the toxicity data available to us are inadequate for complete evaluation of any of these elements in the diet, particularly germanium, gold, indium, iridium, palladium, platinum, rhodium and ruthenium;

- d) the data are insufficient to allow the identification of groups of individuals who might be particularly susceptible to any adverse health effects from dietary intakes of these elements. Consequently, our evaluation applies only to healthy adults.
3. Acknowledging these limitations, we have seen no evidence to suggest that any of the estimated intakes should be a cause for concern.
 4. The estimated intakes of germanium from the dietary supplements tested (which did not include germanium supplements) were very small in comparison with intakes from germanium supplements. The longstanding advice from the Department of Health, that it is not safe to take any preparation containing germanium (ie germanium supplements), remains appropriate.

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References

1. Ministry of Agriculture, Fisheries and Food, Joint Food Safety and Standards Group (1998). 1994 Total Diet Study (Part 2) - Dietary intakes of metals and other elements. Food Surveillance Information Sheet no.149.
2. Ministry of Agriculture, Fisheries and Food, Joint Food Safety and Standards Group (1998). Concentrations of metals and other elements in dietary supplements. Food Surveillance Information Sheet no.156.
3. Ministry of Agriculture, Fisheries and Food, Joint Food Safety and Standards Group (1998). Concentrations of metals and other elements in marine fish and shellfish. Food Surveillance Information Sheet no.151.
4. Ministry of Agriculture, Fisheries and Food, Joint Food Safety and Standards Group (1998). Metals and other elements in cows' milk and vegetables produced near industrial sites. Food Surveillance Information Sheet no.150.