

Introduction and Background

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This is a paper for discussion. This does not represent the views of the Committee and should not be cited.

Introduction

1. The COT is requested by a number of Government Departments and Agencies to review toxicity information with respect to fluoride in relation to neurotoxicity, effects on bone and effects on the thyroid, and to consider the potential risks in the context of UK exposure levels through dental products, drinking water, and other exposure sources.

2. There has been renewed scientific discourse on effects of fluoride in particular relating to neurotoxicity. While this has not suggested concerns below current regulatory limits, there is an opportunity to revisit and consolidate the evidence, including on total exposure.

Background

3. Fluoride is present in:

- Dental products, commercially and on prescription, to support dental health,
- In drinking water, naturally and where it is added as part of fluoridation schemes to support dental health,
- And in food as a contaminant and via its naturally occurring presence in water.

4. In 2003, COT considered the results of the 1997 Total Diet Study (TDS) with respect to fluoride following publication of the report of the Expert Group on Vitamins and Minerals (EVM). The overall conclusion at that time was that “based on the current information available and the dietary intakes estimated from the 1997 TDS, no adverse effects other than mild to moderate dental fluorosis would be expected to be associated with fluoride intake from food, either in adults or in children, at the intake levels in the UK.” ([COT, 2003](#)).