



**Oral Health  
Foundation**  
Better oral health for all

Oral Health Foundation | Policy Statement

# **Water Fluoridation**

## The Oral Health Foundation's view on water fluoridation

**The Oral Health Foundation is in favour of the fluoridation of public drinking water supplies to improve oral health.**

The Foundation believes that fluoridation is the most important single measure that the UK Government can take to bring a substantial change in the nation's oral health.

The promotional and lobbying work of the British Fluoridation Society and the National Alliance for Equity in Dental Health is backed by the Oral Health Foundation.

Currently only 11 percent of the UK population benefit from fluoridated water. The benefits of fluoridation to these communities are evidenced by their position at the top of dental health 'league tables'.

The Oral Health Foundation is campaigning for the widespread introduction of fluoridated water to the rest of the UK.

Since the privatisation of Britain's water industry, the water companies have been reluctant to introduce fluoridation, despite widespread community and political support. They fear that litigation from the small, unrepresentative, but nevertheless vociferous opponents of fluoride would be costly and time-consuming.

The Oral Health Foundation is calling for Government to facilitate the rapid introduction of fluoride into the nation's water supplies, particularly in areas of social and economic deprivation.

### Recent scientific reviews

A number of high-level scientific reviews of fluoridation have taken place recently which reinforce the Oral Health Foundation's position.

The University of York Centre for Reviews and Dissemination carried out an extensive survey of research on Fluoridation.<sup>1</sup>

The report reviewed a large number of research studies and concluded that there was an average 15 percent increase in the number of caries-free children in communities with fluoridated water. The report also said there was evidence that fluoridation helped to reduce dental inequalities in children.

---

1. NHS CRD (2000) A Systematic Review of Public Water Fluoridation (CRD Report No.18), York, UK, NHS Centre for Review and Dissemination, University of York. [Available at <http://www.york.ac.uk/inst/crd/fluorid.htm>]

The Medical Research Council's Water Fluoridation Working Group looked into a number of issues raised by the York Report and published a paper which identified a number of areas for further research:

- Links with hip fractures (because fluoride is deposited in bone);
- Links with cancer (particularly osteosarcoma);
- Dental fluorosis, and
- Potential differences in the bioavailability of naturally occurring fluoride and artificially added fluoride (because some of the current data is based on areas with naturally high levels of fluoride).

## Bone fractures

A review of 29 studies of fluoride and fractures, with 55 estimates of fracture risk, showed no effect of fluoride.

## Cancer

A review of studies – including 26 cancer studies cited in the York Report – found only two which showed a statistically significant effect from fluoridation. One of these showed a lower incidence and the other showed a higher incidence.

The largest ever study, carried out by the US National Cancer Institute, showed no increase in cancer incidence or mortality associated with fluoridation. The overall conclusion is that there is no association between fluoridation and cancer risk.

## Dental fluorosis

The York Report showed a doubling of aesthetically significant dental fluorosis in fluoridated areas. However, further investigation has cast doubt upon this because the review included studies which would have skewed the results.

They included studies of areas in the US where General Practitioner programs distributed additional fluoride supplements in fluoridated areas, and studies of areas with high levels of natural fluoride in developing countries with significant malnutrition in the population. Moreover, extensive research done in the US in the 1940's in naturally fluoridated areas showed that aesthetically significant dental fluorosis

---

2. Medical Research Council (2002) Medical Research Council Working Group Report: Water Fluoridation and Health, London, Medical Research Council [Available at [http://www.mrc.ac.uk/pdf-publications-water\\_fluoridation\\_report.pdf](http://www.mrc.ac.uk/pdf-publications-water_fluoridation_report.pdf)]

did not occur until fluoride levels were over 1.9ppm – double that recommended for artificial fluoridation. Further analysis of the York data has also shown that the cases of substantial fluorosis were found in studies of naturally fluoridated water, and not in artificially fluoridated water. (This may be because naturally fluoridated water sometimes contains higher levels of fluoride than those recommended for artificial fluoride.)

## Bioavailability

Naturally occurring fluoride and artificially added fluoride both form fluoride ion in water – there is no chemical difference. Trace impurities in added fluoride are governed by CEN standards. Research has shown that fluoride added to water in the UK contains only 10% of the permitted levels of these impurities, and in water they are only 1% of the permitted level – a negligible level in practice.

An extensive review by the Irish Government into its fluoridation programme concluded that fluoridation at 1ppm has been very beneficial for the nation’s dental health, and has not adversely affected health in other ways. It also noted a rise in dental fluorosis. The report recommended fluoridation should be continued, but that the level of be reduced to 0.7ppm as this should continue to provide the benefits while reducing the incidence of fluorosis.

Dr Nigel Carter, Chief Executive of the Oral Health Foundation said “As a dental practitioner I used to work on the borders of fluoridated Birmingham and non-fluoridated Sandwell. The decay and suffering of the Sandwell children was remarkable in contrast to the decay-free mouths of the Birmingham children.

“However, since the water in Sandwell has been fluoridated it has moved from near the bottom of the dental health league to the top ten.

“The Oral Health Foundation would like to see all children throughout the country getting the treatment that they deserve to improve overall dental health.”

For further information, contact the Oral Health Foundation Public Relations department by telephone on 01788 53979, or by email at [pr@dentalhealth.org](mailto:pr@dentalhealth.org).

---

3. Forum on Fluoridation (2002) Report of the Forum on Fluoridation 2002, Stationery Office, Dublin. [Available at: <http://www.doh.ie/publications/fluoridation/pdfs/forum.pdf>]