

from the National Alliance for Equity in Dental Health  
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### Major public health bodies condemn fluoride scare claims

The National Alliance for Equity in Dental Health – an alliance of 37 organisations which includes the British Dental Association, the British Medical Association and the NHS Confederation – condemns claims made by anti-fluoridationists that fluoride is harming the population's health. None of these claims stands up to scientific scrutiny (see detailed briefing attached).

Dr June Crown, President of the Faculty of Public Health Medicine of the Royal Colleges of Physicians of the UK, said:

"The facts are that tooth decay remains a major public health problem in many parts of the UK. It is a preventable disease, and children living in poverty are at particular risk. For example, 1 in 3 children living in the most socially deprived areas of Liverpool have had a 'gas' anaesthetic for tooth extraction before the age of 5. Furthermore, the treatment of tooth decay is an avoidable and costly drain on NHS resources. Much of this disease could and should be prevented. Fluoride - in toothpaste and in water - is safe and effective, and is acknowledged to be the single most significant factor in the widespread reduction in tooth decay rates seen since the 1970s."

Around 10% of the population of the UK have enjoyed the benefits of water fluoridation for over 30 years; and in the US, where over 60% of the population drink fluoridated water, water fluoridation has been practised for over 50 years. Epidemiological studies and independent reviews of the relevant medical and scientific literature consistently support the safety and efficacy of adding fluoride to water to promote dental health.

### Notes to Editors

1. A detailed rebuttal of the claims made is attached for your information.
2. A list of supporting organisations is attached for your information.

### Rebuttal of claims made about adverse effects of fluoride

The main claims made by anti-fluoridationists are reproduced (**in bold**) below.

A brief comment follows each, supported by references where appropriate.

- 1. That Europe has never been persuaded of the efficacy and safety of water fluoridation.**

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This statement ignores the availability of fluoridated water in Ireland, Spain and Switzerland, and ignores the widespread use of fluoridated salt in France, Germany and Switzerland (Pine, 1997).

### **2. That people on dialysis cannot receive fluoridated water.**

Renal dialysis patients can safely drink fluoridated water. However, untreated tap water, whether fluoridated or not, cannot be used for renal dialysis (DHSS, 1985).

### **3. That mothers with newly-born babies are best advised not to make up compound baby feed with fluoridated tap-water.**

Parents in fluoridated Birmingham and Newcastle have been safely using fluoridated tap water to make up infant feeds for over 30 years. There is no suggestion from the Department of Health's expert panel on infant feeding that they should do otherwise (Committee on Medical Aspects of Food Policy, 1994).

### **4. The association between water fluoridation and increased risk of hip fracture.**

All the evidence on hip fracture has recently been reviewed by Professor Cyrus Cooper, Professor of Rheumatology at the MRC Environmental Epidemiology Unit at the University of Southampton Medical School. He concludes that "the burden of evidence suggesting that fluoridation might be a risk factor for hip fracture is weak and not sufficient to retard the progress of the water fluoridation programme" (Hillier et al., 1996).

### **5. Crippling skeletal fluorosis, and the suggestion that the early stages of the condition could perhaps be triggered by artificially-fluoridated water supplies. Also: a mounting toll of skeletal problems ... stiffness ... pain in the joints ... backache ... osteoarthritis.**

Neither the early nor late stages of skeletal fluorosis are seen in areas with fluoride at 1 ppm. Large epidemiological surveys of radiographs in the British population show no evidence of skeletal fluorosis. Nor is there any evidence that other skeletal problems such as stiffness, pain in the joints, backache or osteoarthritis are associated with water fluoridation (Professor Cyrus Cooper, personal communication 1997).

### **6. That the risk of osteosarcoma is between two and seven times greater in fluoridated water areas.**

The evidence on fluoridation and cancer - including bone cancer - has been reviewed by expert committees on a number of occasions; none supports the claim that fluoridated water is associated with an increase in cancer (Knox, 1985; National Research Council, 1993). Recently Dr Paula Cook-Mozaffari of the Cancer Epidemiology Research Group at the University of Oxford has concluded once again that "no effect has been demonstrated of fluoride in drinking water on cancer risk" (Cook-Mozaffari, 1996).

### **7. That fluoride impairs the functioning of the immune system.**

Gibson's work on the effects of fluoride on the immune system has been shown on numerous

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occasions to be seriously flawed in terms of scientific method, and of no relevance to water fluoridation (Challacombe, 1996). Indeed, Gibson herself admitted to serious errors in the 1992 Complementary Medical Research paper (Gibson, personal communication 1993).

### **8. The genotoxicity of fluoride, and its possible role in the cause of increased levels of infant mortality and Down's Syndrome.**

Fluoride has been tested extensively for its genotoxicity. There are no concerns about genotoxicity at the levels of fluoride to which humans are exposed. (National Research Council 1993, pages 91-108). The Royal College of Physicians Review (1976) concluded that "careful case-finding studies, both in the USA and Britain, have found no difference in the incidence" of Downs Syndrome in fluoridated and non-fluoridated areas.

### **9. That Birmingham has significantly higher rates of stillbirth and neonatal mortality than the national average.**

There is no evidence of an association between mortality rates at any age and water fluoridation (Murray, Rugg-Gunn and Jenkins, 1991). UK neonatal mortality rates are strongly associated with social deprivation and ethnicity (Townsend, Davidson and Whitehead, 1992). It is therefore not surprising that rates in Birmingham are higher than average. Other, more affluent, parts of the West Midlands which have been fluoridated as long as Birmingham (for example Solihull) have lower than average rates.

### **10. That fluoride adversely affects the brain.**

The study by Mullenix on the behaviour of caged rats fed very high and toxic doses of fluoride is not relevant to the human situation. Furthermore, a recent expert critique of the study reveals serious flaws - particularly in the fluoride measurements (Whitford, personal communication 1997).

### **11. That there has never been a single long-term, scientifically inviolable study of fluoridation.**

The evidence that fluoride in water reduces dental caries safely is overwhelming; many hundreds of published studies and reviews support this view. In the Strathclyde court case, Lord Jauncey, after considering all the evidence for and against fluoridation, concluded "with evidence such as this available it is not surprising that the majority of the dental profession in the United Kingdom favour the fluoridation of water supplies" (Jauncey, 1983).

### **12. That dental fluorosis is considered a cosmetic and not an adverse health effect (and thus treatment cannot be obtained on the NHS).**

Dental fluorosis is a cosmetic and not a health problem. In the UK, cosmetically unacceptable dental fluorosis is rare and those relatively few cases are probably related to the over-zealous use of fluoride supplements and/or fluoride toothpaste. The condition is treatable on the NHS. The dental profession encourages parents of children under seven years of age to supervise their

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brushing, and to use a small pea-sized amount of fluoride toothpaste. The British Dental Association and other specialist organisations keep fluoride tablet dosage regimes under regular and careful review.

### **13. That the dental lobby has been cowardly in not confronting the huge commercial sugar interests.**

The dental profession has consistently campaigned against the food industry's promotion of health damaging foods and drinks, and in collaboration with the Health Education Authority has encouraged parents and children to reduce their intake of sugar (HEA, 1996). The profession has also worked closely with government to ensure that the hazards of sugar in the diet are officially recognised (Committee on Medical Aspects of Food Policy, 1989).

### **14. That fluoridation risks so much for the sake of so little**

This statement trivialises tooth decay and illustrates the anti-fluoridationists' complete lack of understanding of the extent of dental caries as a public health problem – both in terms of health risks: for example, 1 in 3 children living in the most socially deprived areas of Liverpool have had a 'gas' anaesthetic for tooth extraction before the age of 5; and in financial terms: the treatment of tooth decay is an avoidable and costly drain on NHS resources.

In addition, the anti-fluoridation campaigners' claims perpetuate the illusion of a scientific controversy. In 1978 the US Consumers Union stated "the survival of this fake controversy represents, in CU's opinion, one of the major triumphs of quackery over science in our generation" (Consumers Union, 1978). Their statement is as true today as it was in 1978.

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