

Dental benefits for younger adults who have spent over half their lives in fluoridated areas

Longer lifetime exposure to optimally fluoridated water is associated with substantially lower caries experience in younger adults living in rural areas of Australia, a study has found.¹

The teeth of just under 500 adults born between 1960 and 1990, and aged between 15 and 46 at the time of the study, were examined. Details of their residential histories were recorded and matched with known fluoride levels in the water supplies of the communities where they had lived.

Possible confounding factors that might otherwise affect their risk of tooth decay, including toothbrushing with a fluoride toothpaste, socio-economic status, use of sugar-free gum and smoking, were also taken into account.

About half of the adults had lived in fluoridated areas for 50% or more of their lives. About half brushed their teeth twice a day or more often. Only 44% visited a dentist at least annually, and around a third said they avoided or delayed dental care because of its cost.

The study found that those who had spent over half their lives in fluoridated areas (both intentionally and naturally fluoridated) had 34% fewer decayed, missing and filled teeth than those who had spent over half their lives in non-fluoridated areas (6.01 DMFT compared with 9.14 DMFT).

Numbers of filled teeth accounted for a large part of the difference. On average, adults who had lived longer in fluoridated areas than non-fluoridated ones had 42% fewer filled teeth than those who had lived longer in non-fluoridated areas than fluoridated ones.



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The authors conclude that higher than necessary experience of dental caries can be expected among adults in non-fluoridated areas of Australia which, they point out, leads eventually to higher treatment costs.

1. LA Crocombe, DS Brennan, GD Slade, JF Stewart, AJ Spencer (2015): *The effect of lifetime fluoridation exposure on dental caries experience of younger rural adults*. Australian Dental Journal, 60, 30-37.



Younger adults who had lived over half their lives in fluoridated areas:

Average DMFT: 6.01

Younger adults who had lived over half their lives in non-fluoridated areas:

Average DMFT: 9.14