

DENTAL HEALTH TRENDS OF YOUNG CHILDREN

Generally, Australian children experience good oral health. Oral health affects people both physically and psychologically and can have significant impact on their quality of life. Oral health is essential to the general health and well-being of all children. Diet and nutrition in children impacts on oral health and, if poor, can contribute to tooth decay and other health problems such as obesity and systemic diseases such as diabetes.

Trends in Australia

Australia is among the best ranking countries in the world when comparing rates of childhood dental decay.¹ Even so, dental decay has been estimated to be Australia's most expensive diet-related disease.² This is a matter for concern given that 90% of all dental disease is preventable.

In 1977 a national survey monitoring children's dental health in Australia began as part of the School Dental Scheme. Since then the surveys have been conducted on a yearly basis to provide information on the dental health of children. Over the years the surveys have shown great improvements in the dental health of Australian children, including a decline in average decay experience, and an increase in the proportion of children with no dental decay until the 1990s. Much of this improvement can be attributed to the addition of fluoride to the public water supply.³

However, in more recent years there are signs that the decay experience among young children is increasing. Changes in children's oral health were reported in the latest national survey, *The Child Dental Health Survey, Australia 1999: Trends across the 1990s*.⁴ It was evident that decay rates of primary teeth (baby teeth) across children of all age groups increased during the period from 1996-1999, reversing the trend which saw a decline in rates of decay during 1991-1996. The trend since 1996 was most significant for five-year old children who experienced a 21.7% increase in decay during this period.⁵ These statistics are disturbing given that untreated decayed teeth can cause infection and other dental problems later in life.

Trends in the United States

New research released from the US Centers for Disease Control and Prevention (CDC) in April 2007 analyzed data from two reporting periods of the National Health and Nutrition Examination Survey (NHANES), covering

1988–1994 and 1999–2004, to evaluate trends in the oral health status of the US population aged 2 years and older. The study generally showed an improvement in the oral health status of most Americans in the past ten years.⁶ However, one notable change was the increased prevalence of dental caries in the primary teeth of preschoolers. Caries' rates for youths aged 2–5 years went from 24% in 1988–1994 to 28% in 1999–2004.⁷

This is significant because up until then the CDC had documented a continual decline in tooth decay in children as well as adults since the 1960s. Despite this, dental caries has remained the most prevalent chronic disease of childhood.⁸

Parallels among Australian and US children

Dental health trends amongst Australian and American pre-school children are therefore moving along similar paths. Young children (pre-schoolers) are becoming the target group of increasing tooth decay.

Federal President of the Australian Dental Association (ADA), Dr John Matthews feels "These trends are a concern. The fact the US and Australia are experiencing similar results suggests the problem of increased decay is not restricted to Australia. Possible causes may be:

- complacency amongst parents that grew up largely caries free
- reduced fluoride intake since dentists have been advocating low fluoride toothpastes for children
- increased snacking on processed foods with high sugar content
- lower consumption of fruits and vegetables
- an increase in sweetened beverage consumption including carbonated drinks, sports drinks, juice in baby bottles and sippy cups
- drinking of unfluoridated bottled water instead of fluoridated tap water
- decreased intake of milk

We will have some hard evidence of the causes soon. In the meantime we simply recommend children brush at least twice a day with a recommended dose of fluoride toothpaste, drink plenty of tap water and avoid sugary snacks and drinks."

Working with other groups, the ADA will now be alerting the public of these changing trends and will seek to educate parents and children of the dangers of poor diet and nutrition.

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References

1. Armfield JM, Roberts-Thomson KF, Slade GD and Spencer AJ (2004) *Dental health difference between boys and girls: The child dental health survey*, AIHW DSRU (Australian Institute of Health and Welfare Dental Statistics and Research Unit), AIHW Canberra, No. 31, p 43.
 2. Crowley S, Antioch K, Carter R, Waters A-M, Conway L and Mathers C (1992) cited in NHMRC (2003) *Dietary Conditions for Children and Adolescents in Australia Incorporating the Infant Feeding Guidelines for Health Workers*, National Health and Medical Research Council, Endorsed 10 April.
 3. AIHW 1998 in AIHW (2005), *A Picture of Australia's Children*, AIHW Canberra, p 34.
 4. Armfield JM, Roberts-Thompson KF and Spencer AJ (2003) *The Child Dental Health Survey, Australia 1999: Trends Across the 1990s*, AIHW Cat. No. DEN 95, The University of Adelaide, AIHW, Dental Statistics and Research Series No. 27, p. 27.
 5. Ibid, p. 27.
 6. US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics (April 2007), *Trends in Oral Health Status: United States, 1988-1994 and 1999-2004*, Series 11, Number 248, p 1-2.
 7. Ibid, p 10.
 8. Ibid, p 1.
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