



**Bite**

# Word of mouth



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## Featured

# The “Sunshine Vitamin” —Could Vitamin D be the secret weapon in fighting decay in kids?

Dental caries continues to be a prominent disease in children. Past scientific studies, conducted around World War II, demonstrated a 50 percent reduction in dental caries in children by increasing intake of Vitamin D. Recently these studies were reviewed and indeed still show promise for the control of early childhood caries; indicating that Vitamin D could be a secret weapon in the battle against cavities in childhood and beyond.<sup>1</sup>

Vitamin D most notably increases bone health and helps to prevent osteoporosis. It facilitates the absorption of calcium and phosphate through the intestines. According to an article in the *Journal of Nutrition* by G. Wolf, Adolf Windaus discovered the Vitamin in sterols of fatty tissue of animals and in plants in 1928. At the time, it was understood that certain dietary deficiencies could lead to diseases such as rickets and scurvy. The recognition that Vitamin D could help with common childhood ailments evolved to the connection with tooth decay. Twenty-four clinical trial studies



were published from the 1920s to the 1980s relating to Vitamin D and dental health. These studies were conducted in the USA, UK, Canada, Austria, New Zealand and Sweden and included approximately 3,000 children. Overall, the results showed that

Vitamin D supplementation led to a 50% drop in the incidence of tooth decay, perhaps because Vitamin D helps the body absorb the tooth-building calcium it needs. These results were promising; however, contradictory interpretation between the American Dental Association and the American Medical Association as well

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## This month...



*The heat is turning up outside and I can't wait to use my new surfboard this summer!*

*This month, we discuss vitamin D and its benefits to dental health and tooth development in children.*

*Also, this is the time for you to speak up about your satisfaction or dissatisfaction regarding your health fund rebates. At Bite, we are passionate about people not being bullied by the big 'health' insurance companies. We believe that Australians who are paying thousands of dollars in premiums should not be punished for choosing who they want to see.*

*Jenna has an interesting tip for those hard to reach spaces.*

*Dr Simon Franks*



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as the US National Research Council caused these earlier results to be dismissed and categorized as 'unresolved'. Feeling that the results were promising despite the flaws and varying methodologies, Dr. Philippe Hujuel, at the University of Washington, began a systematic review of the historical studies saying his main goal was to summarize the existing research, so dental professionals could "take a fresh look at this Vitamin D question".

The review revealed a decrease in tooth decay by up to 47% when Vitamin D supplementation was introduced in pregnant women and young children. Also, recent studies looking at tooth development in utero and the effects of deficiencies in Vitamin D, recognized a link to enamel hyperplasia in children. Simply increasing Vitamin D during pregnancy and early childhood could give kids a better chance of fewer cavities and stronger bones.

There was no difference found in the type of exposure, whether from ultraviolet (UV) light, or with the supplements of Vitamin D2 or Vitamin D3. Additionally, looking at the results retrospectively revealed that the effects of Vitamin D supplementation were ineffective after the age of 13, especially in girls. This could be attributed to changes in the body during growth that included increased body fat that reduced the effect of this fat-soluble Vitamin. Hujuel also noted that children who are Vitamin D deficient experience late teething and a higher risk of tooth decay.

Hujuel summarized the benefits of Vitamin D introduced in childhood as the following:

- Improved tooth development
- Better formation of dentin with lifetime effects
- A topical protection similar to fluoride
- Changes in the amount and components of saliva that enhanced enamel strength
- Enhanced whole body immunity

Therefore, revisiting these past studies has reaffirmed the importance of Vitamin D in dental health. Dental caries, or decay, among children is increasing while Vitamin D levels among many populations have dropped; whether this is more than just a coincidence is open to debate.<sup>1</sup> In the meantime, pregnant women or young mothers can do little harm by realizing that Vitamin D is essential to their offspring's health.

References:

1. Hujuel, PP. 'Vitamin D and dental caries controlled clinical trials: systematic review and meta-analysis.' Nutr Rev. 2013 Feb (2):88-97.

**Community**

**Don't be bullied**

If there's one thing that gets us heated at Bite it's that our clients are being short-changed by Health Insurance companies.

What many don't understand, is that the health insurance industry compromises your health by controlling and limiting resources. This means that while you may get a slightly better rebate by going to a 'health fund contracted dentist', you may end up paying the price with inferior, rushed service and the use of lower quality treatment materials. Your health is not 'one size fits all'—everyone's needs are different and treatments should reflect this. To add insult to the cost of premiums keeps increasing (some by 75%) without improvements in rebates.

The Australian Government has announced a much needed review into Health Insurance. Public consultation has now closed but we look forward to reading and reporting the findings.



"Laughter is the best medicine, but your insurance only covers chuckles, snickers and giggles."

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Celebrate everyday heros. Let us know if you have a cause you'd like us to shout about.

*Healthy Hygiene Hints*

**Hard to reach places**

Finding a toothbrush head small enough to access those hard to reach places can be very difficult.

So sometimes—believe it or not—the best option can be a children's toothbrush!

Any brand in the age range of 4-5 years is a great size and texture for those back corners, especially if your mouth is small or if arthritis pain in the hands is preventing your technique.

*Jenna*

**Team**

**Christmas wishes**

The team would like to thank everyone for another fantastic year! We wish you a very happy Christmas and look forward to seeing you in 2016!



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