

Mouth watering

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DAVID MENADUE examines the importance of saliva and good oral hygiene for people with HIV.

Last year my dental bills came to \$4000.

It sounds unbelievable, but the state of my receding gums, the rate of tooth decay and erosion in my mouth and the instability of my fillings led my dentist to do some major reconstructive work where my bite was built up with an adhesive resin to protect the [enamel](#) [1]The extremely hard covering on the exterior of the teeth. from further wear and tear. Add a considerable number of fillings and a couple of root canals and you've got a credit card bill to cry about.

Why have my teeth and gums gone into self-destruct mode in the last few years in particular?

According to Mary Stephens, coordinator of Dental Plus in Prahran in Melbourne (a free dental service for HIV-positive people — for which unfortunately I am not eligible as it's only for people on the DSP), the lack of sufficient saliva in the mouth is the cause of a lot of my problems.

Saliva helps neutralise the acids produced in the mouth by eating and drinking (particularly sweet foods and drinks) and restores the pH balance in the mouth. It contains ions that can recalcify areas of early decalcification.

Persistent [plaque](#) [2]A sticky substance that forms on the surface of the teeth, helping bacteria growth and acid formation beneath its surface, and causing tooth decay. Plaque build-up can irritate the gums and cause gum disease. Removal of plaque through regular brushing and flossing is the key to good oral hygiene.

The lack of saliva in the mouth gives [bacteria](#) [3]A microscopic organism composed of a single cell. Many bacteria can cause disease in humans. (or plaque) a much longer period to interact with the sugars and acid to form tooth decay and for periodontal [gum disease](#) [4]Disease of the tissues that support the teeth, including the gums, the periodontal membrane and the underlying bone. Periodontal disease, which includes gingivitis and the more serious periodontitis, is the most common cause of loss of teeth in adults. People with HIV/AIDS are at increased risk of developing periodontal disease, even with good oral hygiene. (like [gingivitis](#) [5]Inflammation of the gums (the gingiva) caused by poor oral hygiene. Chronic gingivitis can worsen to become periodontal disease.) to develop.

As well as decay, which is the bacterial softening of the tooth structure, excess acid in the mouth contributes to erosion of the enamel, the development of grooves in the teeth and in the gum margins, which can make good oral hygiene more difficult to maintain. The loss of enamel is also a cause of increased sensitivity as it exposes the dentine of the tooth.

Mary explained that people have a very individualised response to bacteria in the mouth. Some people can neglect dental hygiene, eat lots of sweets and junk foods and still not need a lot of fillings, whereas someone who tries hard to brush and get rid of the plaque can still have a lot of problems.

It seems that we acquire the type of bacteria we have in our mouths from our mothers or early caregivers — it's the luck of the draw to some extent whether you have good or troublesome mouth bacteria. Even so, there are clearly a lot of reasons why these bacteria can become more aggressive in the mouth. One of these reasons is a decrease in immune function.

Lowered immune system

"People with HIV who have low T-cell counts present with similar problems to other people with lowered immune defences," said Mary. "The effects of the bacteria in the mouth can become much more aggressive when there is

a lack of blood circulation or in times of illness or psychological stress.” In the early days of the HIV epidemic, she explained, it was common to see people with a rapid and aggressive periodontal disease, greater decay and tooth loss, with gums receding rapidly and high levels of ulceration.

“Added to this if individuals were undergoing chemotherapy or certain types of radiotherapy [for cancer in the head and neck region], the interference with this treatment on teeth can be catastrophic,” she said. “Some people had to have all their teeth out in this situation because the effect of the therapy meant that their salivary glands never quite worked properly again.”

Role of HIV treatments

The advent of [HAART](#) [6] Highly Active AntiRetroviral Therapy ??? aggressive treatment of HIV infection using several different drugs together. has generally improved the health of the clients Mary sees at her very busy clinic (which can be booked out months ahead, so great is the demand).

“The oral health of a lot of people with HIV is better generally than a lot of the other clients we see here who don’t look after their diet and general health, such as people who experience episodes of homelessness,” said Mary, “but there are new issues which HIV treatments have introduced into the equation.”

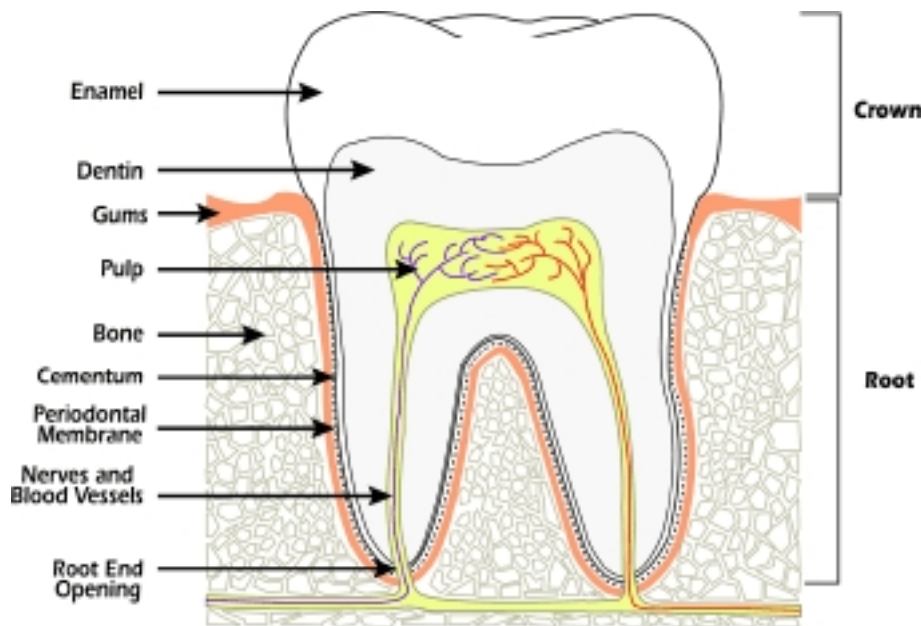
Anti-HIV medications can contribute to the development of a dry mouth, especially ddI and indinavir (but dry mouth has at least occasionally been reported as a [side effect](#) [7] An unwanted effect caused by the administration of drugs. Onset may be sudden or develop over time. for most others). This also happens with other medicines — some antidepressants, antihistamines and anti-blood pressure treatments, to name a few.

Some people with HIV have reduced saliva levels even if they aren’t on treatments and despite having fairly good T-cell counts. This condition is referred to as HIV-associated salivary disease.

“On top of that you have some people with HIV developing [diabetes](#) [8] [Diabetes mellitus] A disorder in which sugars in the diet cannot be metabolised into energy due to a lack of the enzyme insulin. Late-onset diabetes mellitus may be a long-term side effect of some anti-HIV drugs. which is often associated with a worsening of periodontal disease,” Mary said.

Dental services for people with HIV are a crucial issue that NAPWA hopes will be taken up by the government as part of the next National Strategy. Positive people need to see a dentist regularly because of the particular problems presented by the [virus](#) [9] A small infective organism which is incapable of reproducing outside a host cell.

Along with specific issues with some dentists not wanting to treat HIV-positive patients, the need for special clinics like Dental Plus is high. Patients there don’t have to pay for treatment, which is important given the high costs of living with HIV. But it is also about the provision of a welcoming, non-judgemental and HIV-experienced service that has been greatly appreciated by the HIV-positive patients who use the service.



Waiting periods have become

lengthy at Dental Plus and it would seem there is a strong case for extending funds to such services rather than reducing or cutting them, as it's rumoured the Victorian government has contemplated.

Dental care tips

Because people with HIV need to take extra care of their teeth, Mary lists the following tips as the best way to keep your mouth healthy — and your credit card bills low

- don't smoke. Smoking effects the circulation of blood in the mouth and hinders it from getting rid of harmful substances in the mouth.
- Drink plenty of water — most people don't drink enough to keep properly hydrated.
- Limit your intake of caffeine. Caffeine (in tea, coffee, chocolate and some soft drinks) affects the salivary glands and is a diuretic (makes you pee more), leading to a loss of water. A suggestion for coffee drinkers is to drink a glass of water along with your coffee.
- don't drink Coke, Pepsi and other cola drinks. As well as being very high in sugar, caffeine and acid, they diminish salivary flow due to their caffeine content.
- Limit your alcohol intake — alcohol is also a diuretic and contributes to hydration problems
- Daily fluoride rinses or gels (e.g. Colgate Gel-Kam) can decrease decay rates and help with tooth sensitivity, but they can be expensive.
- A new product called Tooth Mousse is now available in Australia. It is a better-tasting alternative to fluoride rinses as it contains casein (a milk by-product) and also works very well as an adjunct to fluoride. It can be applied on the finger and swished around on your teeth before bedtime. Originally developed at a laboratory at Melbourne University, it looks promising as a protector against tooth decay, erosion and as an aid in strengthening teeth. It is currently only available from dentists.
- Mouth rinses such as Listerine and Savacol contain alcohol and while they are good at treating infection, should be used sparingly because they can make a dry mouth worse.
- Use a soft toothbrush and brush and floss regularly. Toothpicks are not a good idea unless you have wide gaps in your teeth — and an interdental or interproximal brush (a narrow brush which cleans between the teeth) is probably a better idea then anyway.
- An electric toothbrush (brushing one tooth at a time) is a good idea particularly to maintain the gums although a manual one used properly can be just as good.
- don't brush your teeth immediately after eating, particularly if you've been eating acidic foods (such as oranges). This can contribute to enamel loss because your saliva hasn't had a chance to neutralise the food acid. It is also important not to brush immediately after vomiting because of the high amount of acid in your mouth. Rinse your mouth out with water, put some fluoride gel on your finger and rub it over your teeth if you want to freshen your mouth.
- A rinse, after eating, with half a teaspoon of bicarbonate of soda in half a glass of water can be very helpful for people with a particular problem with a dry mouth, as it helps neutralise acids.
- Sugar-free chewing gum is a good idea as it helps stimulate saliva and decrease the amount of acid in the

mouth.

Following the advice above can help ensure that you don't end up with the sorry sight that I presented to my dentist last year when my dental problems were becoming serious — as it seems is the case for a lot of HIV-positive people around the country.

My dentist did major restorative work to build up the teeth and protect the fillings and the enamel for the time being but I still need to be vigilant to keep problems at bay. Constant hydration, chewing sugar free gum and the purchase of an electric toothbrush have been the most important things that have brought my gums back from the brink! So I hope after reading this, you too are salivating!

- [oral health](#)

Links:

[1] <http://www.napwa.org.au/glossary/term/117>

[2] <http://www.napwa.org.au/glossary/term/107>

[3] <http://www.napwa.org.au/glossary/term/410>

[4] <http://www.napwa.org.au/glossary/term/115>

[5] <http://www.napwa.org.au/glossary/term/116>

[6] <http://www.napwa.org.au/glossary/term/96>

[7] <http://www.napwa.org.au/glossary/term/469>

[8] <http://www.napwa.org.au/glossary/term/95>

[9] <http://www.napwa.org.au/glossary/term/125>