

Oral health and general health

Our bodies are in complete equilibrium to work and function as effectively as possible. Every bodily system is in sync and one can impact the other when the balance is tipped into ill health. Research has shown that ill health from anywhere in the body can have a knock on effect to our oral health and vice versa.

A person's oral health can act like a window into what is occurring in the rest of the body. General diseases can affect the mouth, e.g. diseases of the gastrointestinal tract and diabetes, and oral health can influence the other organs, e.g. diabetes, obesity, cardiovascular and respiratory illness. To put it simply, whatever is put in the mouth has implications for the body and oral health. Poor oral health can affect appetite and the ability to eat, result in malnutrition, and hence compromise general health and well-being.

Poor oral health usually starts with a build-up of plaque triggering an inflammatory response. Plaque is a sticky, soft film that builds up on the teeth and contains a variety of bacteria, saliva and food by-products. It plays a central role in the cause of dental decay, gingivitis (gum inflammation) and periodontitis (more severe form with bone loss). Recent evidence suggests that periodontitis may be associated with heart disease, diabetes and other health conditions.

Heart disease



Oral inflammation and bacteria associated with periodontitis (advanced gum disease) may be associated with the development of heart disease. Oral bacteria may enter the bloodstream and attach to fatty deposits in the blood vessels of the heart. Another theory is that inflammatory proteins may enter the bloodstream and may stimulate inflammation in blood vessels. Both theories suggest that these conditions may lead to blood clots and contribute to heart disease.

It is vital to maintain good oral health especially if you have a heart problem. You should make sure your dentist and hygienist know you have a heart problem and if you are taking any medications as a result. It is important to maintain good oral health by brushing twice and flossing once a day, and to ensure you are doing this adequately by having the teeth checked regularly by the dentist or hygienist. This should be supplemented by a healthy diet and regular exercise. If you smoke you are putting your heart and also general health at increased risk and you should seek professional help to stop - see below for further information.



Lung disease

Some respiratory illnesses such as pneumonia can arise from the inhalation of bacteria from the oral cavity. Therefore it is essential that you keep your teeth and gums clean especially if you have a respiratory disease.

Diabetes

A diet with too much sugar and calories can cause obesity and dental decay that could eventually lead to diabetes. Diabetes is a disease whereby the body's ability to produce or respond to the hormone insulin is impaired. This means that the body then cannot process and breakdown carbohydrates (simple sugars) which in turn causes higher levels of glucose (sugars) within the blood stream. Diabetes can have an impact on your oral health, and your oral health may affect your diabetes. The two are need to be balanced so one does not affect the other. The increase in blood sugar level, which occurs in diabetes, can cause damage to nerves, blood vessels, the heart, the kidneys, the eyes and the feet. In the same way, the gums can also be affected. Gum disease affects the control of diabetes, and equally, diabetes has adverse effects on the blood vessels and immune response which can exacerbate the bodies gum disease. Studies show that gum disease may be more difficult to manage in patients with diabetes. Poorly controlled diabetes can result in periodontitis, tooth loss, thrush (a fungal infection of the mouth), and xerostomia (dry mouth). Uncontrolled diabetes can be made worse by periodontitis.

Smoking & tobacco use

Any tobacco use is directly related to a number of medical problems including cancer, low birth weight babies, pulmonary and cardiovascular problems. As health care professionals, we would encourage you to quit smoking which will benefit both your general and oral health. Smoking is one of the most significant risk factors in the development and progression of gum disease. Smokers are up to six times more likely to show periodontal destruction than non-smokers and also show a poorer response to treatment. Smokers are also at increased risk of recurrence of gum disease. This is thought to be due to a reduction in gingival blood flow, impaired white blood cell function, impaired wound healing and an increased production of inflammatory cells that cause tissue destruction and breakdown. Many studies have shown that persistent smoking leads to greater tooth loss and reduced response to periodontal therapy (gum treatment). So it is part of our job as dental professionals to ask about your smoking habits. This is not to lecture you but to merely inform you that gum treatment is less successful in a smoker than it is in a non-smoker and it is unlikely that we would see much resolution in the disease but can hope to halt and slow its progression. Even smoking one to four cigarettes a day will increase your risk of developing periodontitis (advanced gum disease with irreversible damage) by almost 50%. Smoking also increases the likelihood of developing oral cancer by up to seven times. The effects of tobacco use, heavy alcohol consumption, and a poor diet are combined this is thought to account for more than 90 per cent of cases of head and neck cancer. For more on oral cancer, please see our oral cancer page.

As dental professionals we have a duty of care to make you aware of the effects the smoking will have on the health of your gums, how you will respond to gum treatment, the risk of recurrence of gum disease and the risk of tooth loss. A number of studies have shown that smokers do not show as good a response to periodontal treatment (even in the presence of good oral hygiene) as non-smokers. Smokers are also twice as likely to lose teeth in the longer term. If a patient does manage to stop smoking there is a benefit to treatment response.

We understand that quitting smoking is a lot easier said than done and you need to be in the right mind set and motivated to want to quit. Stopping smoking is a process, not a single event and may require several serious attempts before you achieve success. On average, it can take a person up to seven serious attempts to fully quit smoking. Therefore, every 'failed' attempt should be viewed as victory rather than a failure and one step closer to that end goal. If you do manage to quit smoking, you may notice that your gums start to bleed. This is due to the blood vessels in your gums becoming oxygenated and responding to the gum disease, this is only temporary once a good oral hygiene routine is established the bleeding will soon cease.

For information on how to quit smoking get in touch with your GP or follow the link below:

[Find stop smoking services in England](#) - Call the free Smokefree National Helpline on 0300 123 1044.

Alcohol

The NHS recommends you drink no more than 14 units of alcohol a week. If you drink as much as 14 units a week, it's best to spread it evenly over 3 or more days. Binge drinking can cause damage to teeth by wearing them away through a process called erosion. Smoking and alcohol consumption combined drastically increases the chances of oral cancer. A lot of alcoholic drinks are really high in sugar too which will put you more at risk of developing dental decay.

Drinkline is the national alcohol helpline. If you're worried about your own or someone else's drinking, you can call this free helpline in complete confidence. Call 0300 123 1110 (weekdays 9am to 8pm, weekends 11am to 4pm).

For more information on oral cancer, tooth wear and dental decay please see our other pages on these topics.

Prescribed medications

All drugs/medications come with side effects. Some drugs can cause your gums to overgrow making brushing more difficult. Speak to your GP to see if there is an available alternative medication that doesn't give this side effect. Examples are blood pressure tablets such as nifedipine, felodipine, amlodipine. An anti-epileptic medication known as phenytoin, and an immunosuppressant drug called Ciclosporin.

Pregnancy

When you are pregnant there are lots of hormonal changes going on in your body which can have a knock on effect to the health of your gums. You may experience bleeding and/or gingival overgrowth, this response is worse if your oral hygiene isn't very good or there is already plaque present. Lots of myths surround pregnancy and your teeth and gums. The best thing you can do is pay extra attention and spend more time when brushing your teeth and gums and not to be put off by any bleeding. The worst thing you can do is ignore it. While you are pregnant you can receive free NHS dental treatment with your maternity exemption until your baby your baby is a year old. Take this opportunity to get registered with an NHS dentist and help keep your mouth and the rest of your body healthy to support your developing baby.

Being a healthy weight

We know that having a balanced diet and doing regular exercise is good for our general health and mental well-being however did you know it can have a positive impact on the health of our gums? Studies and research conducted showed that individuals with a BMI of 18.5-25 had a significantly lower risk of developing periodontal disease than those with a BMI of 30. Al-Zahrani MS, Et al. (2003) Obesity and periodontal disease in young, middle-aged, and older adults. J Periodontol 74:610–615.

Dental decay is caused by the same factors that can cause obesity. A high sugar diet will have high calorific content and causes obesity. For more information about being healthy visit www.changeforlife.org

Stress

Stress and mental health can impact on the health of the gums. Regular oral examinations can enable early detection of eating disorders, as early signs include the wearing away of tooth enamel and swelling of the salivary glands. When the body is stressed it has the reduced ability to fight against periodontal infection. Your body will also respond differently and can end up destroying healthy cells when trying to target bacteria. Stress can also affect your ability to brush your teeth effectively; you may find you smoke more than usual (if you are a smoker). You may also make different or unhealthy food choices which may not always be the most nutritious. If this is the case we will try to recognise this and would urge you to seek help and advice from your GP so they can find the right people to help and support you.

Useful resources:



One small step is a free service within Devon to improve health and wellbeing through smoking cessation, drinking less, being a healthy weight and being active. To find out more or to access this service visit: <https://www.onesmallstep.org.uk> call: 0800 298 2654 or email: hello@onesmallstep.org.uk

Al-Anon Family Groups offers support and understanding to the families and friends of problem drinkers, whether they're still drinking or not. Alateen is part of Al-Anon and can be attended by 12 to 17 year olds who are affected by another person's drinking, usually a parent.

We Are With You is a UK wide treatment agency that helps individuals, families and communities manage the effects of drug and alcohol misuse.

Adfam is a national charity working with families affected by drugs and alcohol. Adfam operates an online message board and a database of local support groups.

The National Association for Children of Alcoholics (Nacoa) provides a free, confidential telephone and email helpline for children of alcohol-dependent parents and others concerned about their welfare. Call 0800 358 3456 for the Nacoa helpline.

<http://www.dentalhealth.org>

<https://www.bsperio.org.uk>

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