

# Tooth Wear

**TOOTH WEAR CAN AFFECT CHILDREN, YOUNG ADULTS, AND OLDER PEOPLE. WORN TEETH LOOK SHORTER, ARE SOMETIMES DISCOLOURED AND CAN BE QUITE SENSITIVE TO COLD OR SWEET FOODS AND DRINKS.**

Sometimes it's not just the length of a tooth that wears down, but also its neck near the gum can abrade to leave sensitive notches and grooves. Worn teeth can give the impression that a person is "tooth-less" as they do not show much, if any, of their teeth when they smile. It makes the person look older and the problem appears to be becoming more prevalent in our modern society.

So, what causes tooth wear? Dentists used to think that tooth wear occurred simply because people ground their teeth too much as a result of stress. Or, perhaps they were brushing their teeth too hard, resulting in notches and grooves by the gum-line. We now know that sound, healthy teeth will not wear down very easily with toothbrushes, or by tooth-to-tooth clenching and grinding. Enamel is the hardest substance in the body and not easily worn. However, if enamel is diseased or "softened", then it is much more susceptible to being worn away. The problem most commonly seen that softens enamel, is acidity of the saliva.

Our mouths normally function with a neutral pH balance and as our teeth are hard, mineralised structures, they are happy in this non-acid environment. However, when you eat, the bacteria in your mouth also eat the food and as a result, they produce acids. The pH in your mouth then quickly falls (becoming more acidic) and the very superficial layers of enamel (at a microscopic level), will begin to dissolve. If you then clench, brush or grind your teeth, you will wear away the now softened enamel. You might only wear away a few fractions of a millimetre of enamel by doing this, but... a few fractions per day over many months or years will result in a significant shortening of your teeth. Then it may be necessary to rebuild or even crown all of your teeth. Fizzy soft drinks, sports drinks or a diet high in other acidic foods and drinks, will also lead to tooth wear.

But, there is some good news. As easily as enamel can dissolve in acid, it can also reform on the tooth in a neutral or slightly alkaline (higher pH) environment. Saliva contains calcium and phosphate which is very effective at neutralising acids. These salivary minerals will then settle onto the enamel surface, replacing the mineral that was lost to the acid attack, and harden the teeth back up.

In fact, if you can stimulate significant saliva flow following a meal, it will quickly reverse the effects of the acid attack and repair any damage that might have just occurred to your teeth. Saliva is indeed the great protector of teeth!

So, why does tooth wear occur in some people but not others? Well, there are many reasons. In a healthy mouth, with a normal, balanced diet, good oral hygiene and good saliva flow, little damage is usually seen. However, if a person's body does not produce enough saliva, they may experience significant tooth wear. If the same person also consumes acidic foods; lemon or citrus; cola or other fizzy drinks; sports drinks; wine; salad vinegarettes...the list goes on! (see over – our prepared table of acidic foods and drinks) then their teeth are at great risk of acid attack and tooth erosion. Some people do not consume enough water and become dehydrated, whilst others are very active or consume too much caffeine (a diuretic) and also become dehydrated. There are many questions and some tests we can do to determine the cause of tooth wear. Simple measures including changes to your diet or habits and the use of a supplement, may be all that is needed to address and prevent the problem, before it gets so advanced that major restorative procedures are needed.



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