

PREVENTING TOOTH WEAR

DENTAL AND IMPLANT SURGEON DR JEAN PAUL DEMAJO
ON THE WEARING AWAY OF THE NATURAL TOOTH STRUCTURE

There is a high prevalence of tooth wear in the population spanning all ages and there are different types of tooth wear.

EROSION

This is caused by acidity in our mouth coming from acidic food and drink such as citrus fruit and beverages like soft drinks which reduce the pH level in the mouth, softening the enamel, causing it to decompose (Figure 1). This exposes the dentine, making the tooth more vulnerable to tooth wear. Saliva is our natural defence but the flow of saliva is often reduced due to medication resulting in higher rates of acid erosion. Acid reflux rising from the stomach may also cause enamel surface loss.

ABRASION

Abrasion is the wearing away of tooth structure by mechanical forces from a foreign element. The main cause of this is hard tooth brushing as well as the continual placement and removal of a dental appliance. This tends to occur mostly at the junction of the root and crown of the tooth. Hard brushing causes the gums to be pushed away from the crown exposing the root (Figure 2). The root, made up of softer dentine, wears away more easily, causing it to become more sensitive to food that is hot and cold.

ATTRITION

Attrition is the loss of tooth structure by mechanical forces from opposing teeth. Initially affecting the

enamel, if unchecked, it may proceed to the underlying dentine (Figure 3). Erosion is a very important contributing factor to the loss of tooth substance by attrition. The lowered pH level softens the teeth and as a result it is easier for opposing teeth to wear away on chewing or grinding. Attrition also occurs due to a reduced number of surviving teeth present in the mouth, increasing the load on the remaining teeth.

ABFRACTION

Abfraction is a theory explaining the non-carious cavities around the gum line. The theory suggests that excessive loading forces during eating or due to grinding habits (bruxism), places excessive loads on the enamel. This is mostly seen at the crown-root junction causing this pattern of destruction of the enamel.

PREVENTION OF FURTHER TOOTH LOSS

- Dietary control
- Soft brushing
- Production of a custom-made mouth guard to reduce tooth grinding at night
- Frequent use of minimally abrasive tooth-paste
- Replacement of missing teeth to dissipate the masticatory load on all teeth and not just on a few.




Figure 1: Upper dentition showing diffuse loss of enamel caused by acid erosion.



Figure 2: Gum recession caused by hard brushing exposing the roots



Figure 3: Tooth wear of lower anterior teeth. Notice the polished surfaces caused by the opposing dentition.

Tooth wear may severely demean the aesthetics of the dentition not to mention the ongoing associated symptoms of sensitivity and nerve pain. Progressive tooth wear may lead to tooth fracture and eventual tooth loss. Tooth wear should be nipped in the bud. Ask your dentist! 

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