

Tooth Abfractions

Abfractions are notches on teeth that develop along the gum line, which are not caused by decay. These lesions develop as the result of mechanical stress due to excessive pressure when teeth bite together. This condition is often seen in people who have a **bad bite** and people who **grind and clench** their teeth. Other potential factors include regular biting of hard objects (ice cubes, nails, pen caps, etc.), ill-fitting fillings, crowns or bridges.

Teeth are not rigid structures, the reason why they can flex when submitted to extreme pressure, resulting in tooth wear. Use of a hard toothbrush, vigorous brushing technique and regular exposure to acids from food and drinks can cause even more damage.

Over the years, the excessive forces can cause enamel and cementum to loosen minerals and break down. If not treated, the conditions progress to expose dentin, which lies underneath enamel and cementum. Due to its softer nature, dentin wears out quicker than enamel, resulting in indentations. The forces concentrate at the gum line, the reason why those are the areas that typically develop abfraction.

With tooth grinding, even more pressure is put on the dental structures, more than they were built to handle. Grinding usually takes place during the night as an unconscious habit that can last for hours on end, hence the increased risk for tooth abfraction.

Abfractions are not unusual in adults and, if left untreated, the lesions can become deeper, affecting dentin and eventually the tooth nerve, with the potential to cause pain and lead to tooth loss.

The treatment needs to address the lesion itself and the cause of the abfraction. Sensitivity and esthetic concerns also need to be considered.

