

Talking with Patients

Noncarious Cervical Defects

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WHAT IS IT?

Noncarious cervical lesions are dental defects located at the gumline on a front or back tooth. These smooth, notch-shaped defects are not caused by dental caries. These defects are the result of tooth structure loss caused by chemical erosion, abrasion, stress from biting forces, or a combination of such factors. Since the root surfaces are softer than enamel, these defects most commonly occur at the gumline or “neck” of the tooth where the root begins.

Erosion of the tooth is generally related to the frequent consumption of acidic foods or drinks but also can be caused by gastric reflux or frequent regurgitation. The chronic presence of acidic substances in the mouth causes the tooth mineral to be slowly dissolved, contributing to noncarious defects. Abrasion of the tooth is related to the constant use of abrasive substances on its surface. The long-term use of abrasive toothpastes and improper tooth brushing can ultimately lead to wear of the tooth. Finally, stress from heavy biting forces is believed to contribute to the formation of these defects as well. Heavy biting causes the tooth to flex or bend at the neck of the tooth. This repeated insult is thought to cause micro

defects that can grow into cervical defects called abfractions. Patients who clench or grind their teeth at night are particularly susceptible to the formation of abfractions.

HOW IS IT DIAGNOSED AND TREATED?

Cervical defects are diagnosed by your dentist during regular dental examinations. Initially, the cause of the defect should be determined and, if possible, treated or controlled. Diet counseling, oral hygiene instructions, and a bite analysis are all part of a treatment plan oriented to prevent the defect from growing and to prevent future defects from developing.

The filling of the defect with a tooth-colored composite filling is sometimes recommended when the defect is getting progressively deeper and the tooth is sensitive. When the defect becomes deep and weakens the tooth, a filling also might be recommended.

Fillings to restore these defects can be done with esthetic dental materials, resulting in almost imperceptible fillings. Since there is no caries in the tooth, these fillings can be bonded directly into the defect to conservatively restore the tooth.

CONCLUSIONS

Noncarious cervical lesions are notch-shaped tooth defects located at the gumline of teeth. These defects can, at times, be sensitive, can compromise the strength of the tooth, and sometimes can be nonesthetic. A sound diet and proper tooth brushing habits, as well as a well-adjusted bite, are important to prevent such defects from developing or progressing. Once a cervical defect is diagnosed, your dentist can determine if a filling is needed, which can be done using conservative and esthetic filling materials.

The following photographs show noncarious cervical defects before and after they were filled with a composite material.



Preop. Before.



Postop. After.