

# Occlusal disease: the silent destroyer

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Occlusal disease is the third member of the triad of factors that cause tooth loss; the other two factors are tooth decay and periodontal disease. While occlusal disease is not a problem for everyone, for

those that have it, the consequences can be devastating.

Identifying occlusal problems should be an important part of the initial dental exam. Patients may or not present with specific complaints related to occlusion, but it is still critical to record any findings. Areas to focus on include the health of the temporomandibular joint and the muscles, as well as the teeth. Occlusal disease can manifest itself with pathological consequences in any or all of these areas. For example, the TMJ may exhibit a limited range of motion, pain or popping and clicking on opening or closing; the muscles of mastication may also exhibit tenderness to palpation or may restrict mandibular function; and the teeth may exhibit abnormal signs of occlusal wear, abfractions, cracks or fractures. Unless there are significant fractures or pain present, many patients are unaware of any of these problems. Some problems are caused or aggravated by occlusal discrepancies,

parafunctional habits such as clenching or bruxing, or both. These habits often occur while the patient is sleeping and totally unaware of the habit or the damage. It is important to document the findings during the exam and then educate the patient about them and the potential outcome if the damage goes untreated.

Here are some recommendations for occlusal disease evaluation:

- 1 Check the joint first. Does it click and pop or does it open quietly? How wide can the patient open his mouth? Does his jaw deviate to one side or open straight?

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**2** Check the teeth in maximum intercuspation (MI). Do the anterior teeth touch, especially the canines? Do the posterior teeth touch on both sides?

**3** Look for wear facets on the anterior and posterior teeth. When the patient grinds side to side, do the anterior teeth guide the jaw or do you see posterior teeth in contact?

**4** Are there any gingival notches on the facial surfaces of the teeth, with or without sensitivity, caries or excessive tooth loss?

**5** Is there a difference in the tooth contacts when the joint is in centric relation compared with MI?

**6** Are there any working and non-working posterior interferences on the teeth as they move from their MI?

**7** Does the patient have a history of headaches, muscle pain or tired jaws. Does he know if he grinds his teeth at night (or has someone told him)?

**8** Has anyone told the patient he snores? Does he wake up several times at night and go to the bathroom or wake up tired? Have the patient say “ah” and see if the uvula is visible. Does he have a long soft palate?

**9** Do you see any cracked marginal ridges or fractured restorations? How does the occlusion relate to those areas?

**10** Does the patient bite his cheek or tongue often? Does he have adequate horizontal or vertical overlap of the teeth?

Once the patient has been made aware of his occlusal condition, you can discuss treatment options. Treatment possibilities range from doing nothing, to conservative reversible treatment, to definitive occlusal therapy, to extensive alterations to the occlusion “Doing nothing” is truly a misnomer, because in fact you are doing the most important part of any therapy — diagnosing the problem

and educating the patient as to the extent of the problem and the prognosis. Then the patient can determine how far to proceed with further treatment. Often, the patient’s signs and symptoms will dictate the treatment to which he agrees.

The next level of treatment would involve conservative reversible treatment such as an occlusal splint. The treatment does not cure the patient of anything, but it does limit any further damage to the teeth and can relieve the level of stress placed on the joints and musculature. Then, definitive occlusal therapy can include a limited or complete occlusal adjustment (equilibration) designed to eliminate harmful excursive contacts and maximize occlusal efficiency. Finally, extensive alterations to the occlusion may require restorations fabricated to the new occlusal scheme. All of these options serve to benefit the patient as you halt or retard the progression of occlusal disease. ♦



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