

Take the Gum Disease Toothpick Test

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The number of medical self-tests is increasing rapidly. In the comfort of their homes, people now check their blood pressure, blood sugar levels, prothrombin times, pregnancy and answer questionnaires to measure stress levels. In dentistry we now have a periodontal self-test in the form of a toothpick test or Eastman Interdental Bleeding Index (EIBI). The toothpick test can also be used in the office for a quick periodontal screening. If full-mouth probing is done once a year in your practice, the toothpick test can be used at visits in between.

Here's how it works. Simply insert a triangular-shaped wooden toothpick between the teeth from the facial and push it in so it's tight between the teeth and rub in and out four times. Move from one interproximal to another and then look back to check for bleeding on both facial and lingual surfaces. It's quick, easy to do and easy to teach patients.

Periodontal disease begins between the teeth, where tissue in the col area is not keratinized and thus, more susceptible to bacterial endotoxins. Bleeding is a good indication of periodontal infection, but bleeding upon probing scores are time-consuming and can only be done by the dentist or hygienist. The toothpick test can be done easily by patients at home.

The EIBI is named for the research center where it was developed: Eastman Dental Center in Rochester, New York. Researchers microscopically evaluated papilla to determine the correlation between gingival bleeding and cell level infiltrate. Patients scheduled for periodontal surgery donated papilla for this evaluation. Before removing the papilla, a triangular wooden toothpick was placed into the interdental area from the facial aspect. While keeping the toothpick perpendicular to the long axis of the tooth and depressing the papilla one to two millimeters, it was rubbed in and out four times. Bleeding within 15 seconds was recorded.

Microscopic evaluation of the tissue samples confirmed a correlation between bleeding and inflammation. The sites that bled with the toothpick test had significant inflammatory infiltrate visible microscopically. Those that didn't bleed appeared histologically healthy. Although both facial and lingual sections of the bleeding papilla demonstrated some inflammatory infiltrate, the greatest break-

down of collagen was noted in the mid-interproximal section – the col area, right under the contact.

This study not only provided the first histological correlation between interproximal bleeding and the mid-interproximal location of the inflammation, but also introduced a convenient bleeding index which can be used by both clinician and patient.

The uniform pressure exerted across the col area by the triangular toothpick seems to be more reliable than the traditional bleeding on probing method. Use of the probe can be influenced by probe size, location and pressure. Where the toothpick fits, the EIBI has fewer variables to influence results and reports a low frequency of false positives. This is in contrast to an evaluation of bleeding on probing where pressure was repeatedly increased until bleeding was achieved. The harder the probing pressure, the more likely you are to elicit bleeding. Based on several studies, the EIBI is a reliable index for clinical evaluation of interproximal inflammation. Teaching patients to monitor their own gingival health has a side effect. Rubbing the triangular wooden stick between the teeth also removes plaque, leading to lower bleeding scores over time. The easy toothpick test provides valuable periodontal information in just minutes.

On a completely unrelated but very important note, it's time for Townie Choice Awards again! This is the sixth annual opportunity for Hygienetown Townies to vote for their favorite products and services. Even if you don't post in the discussions online, your vote is important. Click the Townie Choice Awards icon on the home page to access your personal ballot. From there, simply select your favorite product in each section. You can complete the entire ballot in one sitting or over several days. Thank you and remember, your vote matters! ■

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