DENTAL ECONOMICS®

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I HAVE IT— YOU WANT IT!

Image courtesy of Ortek Therapeutics

Ortek-ECD by Ortek Therapeutics

While clinical and radiographic examinations often reveal decay that requires treatment, there may be times when either the radiograph does not indicate anything or it's inconclusive. This is where a great new device, the Ortek-ECD (electronic caries detection) can save the day, or rather, the tooth.

With both a numeric readout and audible signal, this portable device can often find carious lesions before they're visible via radiograph, and better yet, before the patient develops a toothache. As with most diseases (and decay *is* a disease), early detection and intervention are very important. If we're able to detect the decay process early, we can ensure minimal loss of tooth structure using instruments like SS White's Fissurotomy burs to remove the decay and preserve the integrity of the tooth.

How this works and differs from other detection systems is quite unique. The Ortek-ECD measures the conductivity of the enamel through the pits and fissures on the occlusal surface(s) of posterior teeth. If the dentinoenamel junction is breached by demineralization, then even minuscule amounts of dentinal fluid will enter into the enamel. It is this small amount of fluid that is measured by completing the electrical circuit. The higher the amount of dentinal fluid detected, the higher the level of demineralization requiring a restorative treatment. The key to using this device is to start with dry occlusal surfaces, which is easily accomplished by using an air syringe. The patient has a bent "lip clip" similar to that used with an apex locator, which completes the circuit as the dentist or hygienist uses a single-patient-use tip that is placed at the bottom of pits and fissures. These tips are inexpensive and provide access into the smallest of crevices. I find the Ortek-ECD to be an excellent device for detecting decay and providing minimally invasive treatment.