

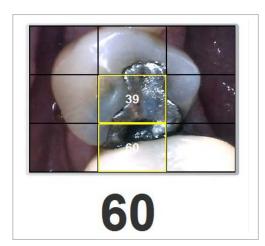
## **Quantum Dental Technologies**

# CANARY CASE REPORT: DETECTING CARIES BENEATH AN AMALGAM RESTORATION

As part of a routine recall examination, a hygienist decided to scan two areas around the margins of the amalgam on the mandibular right second bicuspid. A routine bitewing radiograph of the left side did not reveal any pathology and there were no symptoms associated with this tooth.

#### THE FINDING:

The concern was the integrity of the margins of the amalgam restoration. The hygienist obtained Canary Numbers of 60 on the mesial marginal ridge and 39 on the buccal cusp, which indicated caries and microleakage around this amalgam. This patient had resisted replacing a number of old restorations. The Canary Scan allowed the hygienist and dentist to locate the caries on this tooth (not seen on radiographs) and educate the patient about disease progression and detection.



LEFT: Canary Scan results. Canary Number 60 on mesial marginal ridge and Canary Number 39 on buccal cusp.

RIGHT: Photograph with amalgam removed.



#### THE TREATMENT:

Removal of the restoration revealed a large carious lesion under the mesial aspect of the buccal cusp (Canary Number 60) and caries also on the mesial margin (Canary Number 39). Had the caries not been detected, it would have led to either a pulp exposure or continued to undermine the buccal cusp leading to a fracture.

### THE RESULT:

An additional six minutes of hygienist's time during a recall / hygiene visit resulted in at least \$183.00 in restorative work and a patient who appreciated the opportunity to have the lesion restored before caries had spread further. This patient asked the office to scan other restorations to ensure that they are whole and sound.

