Early Detection and Remineralization: A New Approach to Treating Tooth Decay using 

The Canary System

Detecting and monitoring stained enamel has been difficult in clinical practice. Brown spots in grooves or on smooth tooth surfaces could be simply surface stain or early areas of tooth decay. X-Rays and visual examination do not provide the answer. Here is one example of detection and remineralization of a brown stain on a tooth surface. We have seen this beneficial effect regularly in our lab work but this is one of the first in-vivo examples.

Over the last few years, this patient in our clinical practice, had developed brown stain along the gum line of the lower back molar. The stain was small (1.5 mm. tall and 3 mm. long) in an area that was difficult to brush or to do an accurate visual examination. X-rays could not image this area and we were not sure of the depth of the stain. The patient took good care of her teeth and had a low risk for developing tooth decay, but the question still remained, what was the status of these brown stains and could we alter or harden the tooth. Our Canary readings in July indicated an early area of tooth decay had developed.

![Enamel Surface](image1)

**July 23, 2009  
Canary Reading 36.1**

![Enamel Surface](image2)

**November 2, 2009  
Canary Reading 16.2**

Based upon The Canary findings, we recommended remineralization therapy. We applied fluoride varnish in the office on all the molar teeth and provided the patient with Prospec MI Paste and Prevident Tooth Paste to use at home for a three month period. This combination would stabilize the enamel shell and create a harder new enamel surface.

Our patient returned in November for a Canary Scan and further remineralization treatment. The Canary readings indicated early remineralization and the area did not appear as dark or stained. The patient will be returning in another three months for a Canary Scan and application of fluoride varnish.

The Canary provides the dentist with tools for a non-invasive preventive dental program.