



Treating White Spot Lesions

by Amber Auger RDH, MPH - November 2019

Orthodontic treatment with fixed appliances increases the concentration of acidogenic bacteria in the plaque and raise the levels of *Streptococcus mutans* and *Lactobacilli*.¹ This increase of acid attack increases White spot lesions (WSLs) are very common post orthodontic treatment.¹ Clinical studies demonstrate that WSLs can appear within the first four weeks of traditional orthodontic treatment. These factors provide an environment where the bacteria can rapidly progress the rate of tooth decay. Studies demonstrate that males are more likely to be affected by WSLs as they tend to lack meticulous homecare.¹ Empowering the patient to select therapeutic products to reduce their risks and improved homecare will reduce the progression of demineralization. Providing a white spot lesion treatment chairside can provide the patient with a confident smile.

Resin Infiltration

A resin infiltration, known as DMG's Icon[®] treatment is a minimally invasive restorative treatment for WSLs and hypocalified enamel lesions often found congenitally. Clinical studies demonstrate that a "resin infiltration is a micro-invasive technique, as in the process a superficial layer of less than 30 μm of demineralized and sound enamel is removed."² The goal of the infiltration treatment is to reduce the risk of multiple restorations on an area. This resin infiltration procedure can be completed on radiographically confirmed lesions that effect half of the enamel or in the outer third of the dentin.²

The Icon treatment seals micro permeability of the incipient caries and prevents the bacteria from invading further into the enamel. The low-viscosity hydrophilic light-curing material is able to penetrate the subsurface lesion to prevent the progression of the demineralization. This application is completed by cleaning and drying the tooth surface; applying a rubber dam; using a wedge to separate the teeth from one another; etching for two minutes with HCL 15%; water-air spray in order to remove any additional etch; application of 99% ethanol for 30 seconds to assist dryness and application of resin infiltrate.

Patient Selection

Resin infiltration is a minimally invasive treatment that any patient with a WSL can benefit from. This is especially important in the prevention of the progression of decay through blocking the bacteria from entering into an area that is already compromised from demineralization. When selecting your patients, the Icon product can serve a wide range of patients such as those who have limited resources, developmental challenges, pediatric and geriatric patients. There are no limitations who can benefit from the Icon treatment.



Placement by Registered Dental Hygienists

State regulations dictate if the dental hygienist can place the Icon technology. The dental professional will need to determine if an additional certificate is needed to comply with state laws. The states that allow RDHS to place the Icon technology are Arkansas, California for those with RDAEF, Idaho, Kentucky, Maine, New Mexico, New York, North Dakota, Oregon, Pennsylvania, Washington and Wyoming with additional certificate.³

Placement by Registered Dental Assistants

The benefits of the Icon treatment are impressive. Icon provides an esthetic result on smooth surfaces and allows the caries to be arrested at its earliest stages. Empowering patients to choose products that will decrease their risk of tooth decay and improve oral hygiene habits is essential to inhibit further and future decay. Icon is a minimally invasive therapy that can be completed in the dental hygiene department. To determine what services can be provided by a dental assistant visit the Dental Assisting National Board Inc at DANB.ORG.⁴

One of the most rewarding parts of the dental profession is being able to give our patients a more confident smile. Icon provides a minimally invasive treatment to give patients a reduction in their white spot lesions without sensitivity. The Icon treatment is backed by science and proven effective; therefore this unique technology should be offered to every patient affected by white spot lesions.

References

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