

Talking with Patients

Microabrasion

André V. Ritter, DDS, MS

WHAT IS IT?

Microabrasion is a conservative esthetic treatment used for the selective removal of localized areas of intrinsically stained superficial enamel, usually caused by mild fluorosis and/or enamel hypoplasia (white spots). Such enamel discoloration has been termed *dysmineralization*. In the most popular microabrasion method, a mild concentration of hydrochloric acid is mixed with an abrasive powder to form a paste; this is safely applied to the affected area of the tooth either with a hand instrument or with a slow-speed dental handpiece. The application can be repeated until the stain is totally removed or the esthetic result is acceptable. Enamel microabrasion on teeth is analogous to dermabrasion on skin surfaces.

WHEN IS IT NEEDED?

Microabrasion works best to remove unpleasant stains that are localized in the outermost part of the dental enamel. It also can be combined with tooth whitening to achieve an even more esthetic result.

Microabrasion is not recommended for deeper, internal tooth stains such as those caused by tetracycline, severe mottling from fluorosis, or generalized yellowing of the teeth. In these cases, etched porcelain veneers

ADVANTAGES

More conservative of tooth structure than fillings and veneers
Good esthetics, especially when combined with tooth whitening
Low cost

DISADVANTAGES

Does not remove deep stains
Not recommended for generalized stains
Can be time consuming

(see Volume 14, Issue 1) may be best. Also, if the localized defect is too deep to remove with microabrasion, such as intense white spots, a small tooth-colored filling called a “partial veneer” may be indicated. With partial veneers, the affected enamel is completely removed with a dental handpiece or with a sand-blasting device, and the resultant “cavity” is filled with a bonded tooth-colored filling material.

CONCLUSIONS

Enamel microabrasion is a conservative procedure that can be used by

your dentist to eliminate localized superficial enamel stains. The procedure is used in children and adults and does not require an injection of anesthetic. Multiple teeth can be treated at the same time, although more than one application might be necessary to completely remove the affected enamel. Microabrasion can be combined with tooth bleaching in some cases, for an exceptional improvement of tooth appearance.

The following photographs show an example of teeth treated with enamel microabrasion.



Before

Photographs courtesy of T. P. Croll, DDS.



After

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