PREVENT CARIES

Maintain the beautifully well aligned teeth and orthodontic appliances by predictable biofilm removal.
ENAMEL DEMINERALIZATION DURING FIXED ORTHODONTIC TREATMENT
Incidence and Correlation to Various Oral-hygiene Parameters.

Of all teeth, 24.9% developed new White Spot lesions or a rise in their number. WSL incidence during therapy correlated with clinical attachment level, and the oral hygiene and fluoride-use scores. Despite improvements in materials and preventive efforts, orthodontic treatment continues to carry the considerable risk of enamel demineralization. Each patient’s prophylactic efforts, including fluoride use, are of paramount importance in preventing White Spot lesions.

PREVALENCE OF WHITE SPOT LESIONS IN 19-YEAR-OLDS:
A study on untreated and orthodontically treated persons 5 years after treatment.

The orthodontically treated subjects also had more teeth with white spot lesions than the untreated subjects. The highest prevalence was noted on the first molars in both groups. The present study showed that white spot lesions after orthodontic treatment with fixed appliances may present an esthetic problem, even more than 5 years after treatment.

SURFACE DISTRIBUTION OF ENAMEL OPACITIES FOLLOWING ORTHODONTIC TREATMENT
Eliakim Mizrahi. / American Journal of Orthodontics, Volume 84, Issue 4, October 1983, Pages 323-331

Among individual teeth, there was a statistically significant increase in the prevalence and severity of enamel opacities on the maxillary and mandibular first molars, the maxillary lateral incisors, and the mandibular lateral incisors and canines. The increase was greatest on the cervical and middle thirds of the vestibular surface of these teeth.

PREVALENCE OF CARIOUS WHITE SPOTS AFTER ORTHODONTIC TREATMENT WITH MULTIBONDED APPLIANCES

The majority of the lesions were scored in gingival areas, and especially affected teeth were maxillary lateral incisors and mandibular canines and premolars.

ORTHODONTIC TREATMENT WITH FIXED APPLIANCES AND BIOFILM FORMATION.
A potential public health threat?

Improved preventive measures and antimicrobial materials are urgently required to prevent biofilm-related complications of orthodontic treatment from overshadowing its functional and esthetic advantages. High treatment demand and occurrence of biofilm-related complications requiring professional care make orthodontic treatment a potential public health threat.

ORTHODONTIC APPLIANCES AND ENAMEL DEMINERALIZATION:
Part 1. Lesion development

The clinical significance of the present study is that enamel demineralization associated with fixed orthodontic therapy is an extremely rapid process caused by a high and continuous cariogenic challenge in the plaque developed around brackets and underneath ill-fitting bands. Careful inspection of the appliance at every visit and preventive fluoride programs are therefore required.
**ORTHODONTIC APPLIANCES AND ENAMEL DEMINERALIZATION:**

**Part 2. Prevention and treatment of lesions**


Volume 94, Issue 2, August 1988, Pages 123-128

Although white spot lesions may remineralize and even disappear, most of the emphasis should be directed against prevention of carious lesion development during treatment with fixed orthodontic appliances.

**INCIDENCE OF WHITE SPOT FORMATION AFTER BONDING AND BANDING**


Volume 81, Issue 2, February 1982, Pages 93-98

A clear relationship exists between resistance to white spot formation and the rate of salivary flow. Despite the lack of any preventive fluoride program among the study groups, 50% of the patients demonstrated resistance to white spot formation. The obvious degree of iatrogenic damage during orthodontic treatment suggests the need for preventive programs using fluoride.

**EFFECTS OF AN AIR POWDER POLISHING SYSTEM ON ORTHODONTICALLY BRACKETED AND BANDED TEETH**

C Barnes et al / Am J Orthod Dentofac Orthop, Jan 1990, Vol 97, No 1

Air polishing around orthodontic brackets and bands was not only effective but time efficient. There were no detrimental effects to any composite material or cement in comparison to rubber cup and pumice.

**A CLINICAL COMPARAISON OF THE EFFICACY AND EFFICIENCY OF TWO PROFESSIONAL PROPHYLAXIS PROCEDURES IN ORTHODONTIC PATIENTS**


In orthodontic patients, use of air polishing is a lot more safer, efficient and effective to remove stains and dental plaque in comparison to rubber up and pumice.

**CLEANSING ORTHODONTIC BRACKETS WITH AIR-POWDER POLISHING: effects on frictional force and degree of debris**


Cleansing orthodontic brackets with air-powder polishing significantly reduces debris buildup on the bracket surface while decreasing friction levels observed during sliding mechanics.

**IN-VITRO STUDY OF SURFACE CHANGES IN FIXED ORTHODONTIC APPLIANCES FOLLOWING AIR POLISHING WITH CLINPRO™ PROPHY AND AIRFLOW®**

Benedict W, Shervin V, Dieter D / J Orofac Orthop 2009;70:371-84

The use of air polishing is unproblematic due to minimal increase in friction. Use of glycine and sodium bicarbonate powders is suitable on metal and ceramic brackets. When plastic brackets are used, Glycine is recommended due to its lower abrasiveness. Sodium bicarbonate causes greater roughness and subsequent plaque accumulation.
Guided Biofilm Therapy maintains orthodontic appliances by predictable biofilm removal:

- **100% and 360° ACCESSIBILITY.**
- **NO NEED TO REMOVE THE APPLIANCE FOR CLEANING.**
- **SAFE AND COMFORTABLE AROUND THE SULCUS.**
- **NO CHANGE IN THE SURFACE OF APPLIANCE.**
- **CHILDREN LOVE IT.**

- **NO MORE RUBBER CUPS.**
- **NO MORE BRUSHES.**
- **NO MORE PASTE.**
- **LESS USE OF POWER AND HAND INSTRUMENTATION.**