

The NS Matrix System

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ABSTRACT

Unlike amalgam, the difficulty of condensing composite presents us with the challenge, recreating a tight interproximal contact. May be more importantly, trimming composite that has been extruded beyond the preparation margin around an interproximal box is difficult, frustrating and unpredictable. So in a quest to minimize the amount of trimming we need to do with high-speed instrumentation after the composite is cured. Recreating the natural tooth shape and sealing the walls begins with the matrix. A matrix system must do the following three things:

1. Recreate the natural tooth shape and interproximal contact
2. Seal the proximal and gingival walls of the prep
3. Overcome the thickness of the band.

On the market today are both plastic and metal matrix bands. They are available in a variety of thicknesses and delivery systems that include sectional matrix bands, circumferential systems and bands that require a holder. Here, we present the NS matrix system which is a highly effective and economical matrix system that can be used for a variety of clinical applications, including posterior and anterior restorations.

Keywords: NS matrix system, Matrix band, Wedge, Tofflemire matrix retainer.

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INTRODUCTION

Proper placement of amalgam requires condensation by applying strong pressure to the surface of the amalgam with amalgam pluggers. In cavities involving more than one tooth surface, it is usually necessary to surround the tooth with a matrix band to help confine the restorative material to the cavity preparation during condensation. The matrix band also helps to determine proper contours and the location and form of proximal contacts in the restored tooth.¹ A number of types of matrix retainers are available. Many are designed to be used with matrix bands premade in assorted sizes and configurations. Matrix bands may also be tailored individually from matrix band material and tied or otherwise held in place on the tooth.

When the matrix is in place on the tooth, a wedge or wedges are often used to hold the band tightly against the neck of the tooth on proximal surfaces involved in the cavity preparation.² The wedge keeps the amalgam from squeezing out under the matrix band and into the interproximal space or spaces. Placing a matrix for an amalgam restoration will

allow the dental officer to insert the restorative material without exceeding the limits of the normal tooth structure. The most common type is the Tofflemire matrix retainer and band. This comes in two parts—a small stainless steel band that encircles the tooth and the instrument that holds the band in place (called the Tofflemire retainer).

The NS Matrix System

The NS matrix is a highly effective and economical matrix system that can be used for a variety of clinical applications, including posterior and anterior restorations (Fig. 1).

APPLICATION INSTRUCTIONS

Prepare the tooth for restoration. Select the proper matrix band size (Fig. 2). Insert the retainer in welded tab of matrix band by pressing it with finger (Fig. 3). Slip the band over the tooth, positioning the welded tab either mesially or distally, depending on accessibility, type of carious lesion, and mouth condition of patient (Fig. 4). Using woody wedges, wedge the matrix band to produce and maintain proper separation and to hold the matrix tightly over the gingival margin of the restoration. You will find the band is flexible enough to make a good fit, yet sturdy enough to provide the support needed for the restoration. Complete the restoration procedure. To remove the band, then gently slide the smooth end from between the teeth in an occlusal direction while drawing the band in a buccal or lingual direction.



Fig. 1: The NS matrix retainer



Fig. 2: Matrix band of different size with minimal thickness for easy adaptation to tooth



Fig. 4: Positioned band over the tooth with retainer

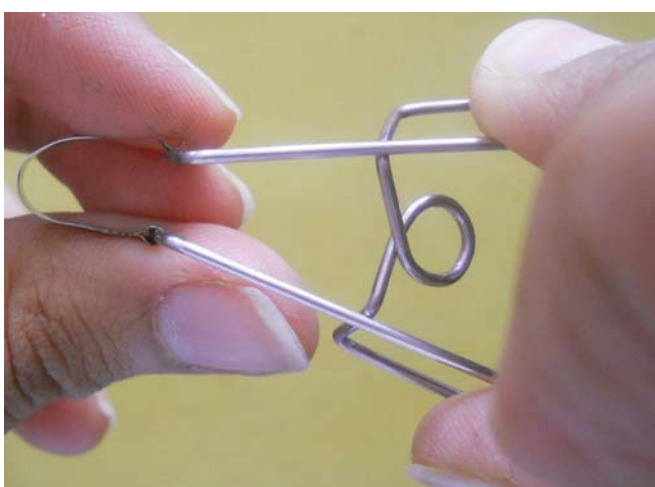


Fig. 3: Insertion of the retainer in welded tab of matrix band by pressing it with finger

ADVANTAGES

1. Can fabricate on chairside.
2. Minimal thickness of band (0.0015", 0.04 mm) for easy adaptation to tooth.
3. Two-step installation-place and wedge.
4. Use for any general restorative procedure.
5. Creates anatomical contours, even with a wide interproximal preparation.
6. Cost-effective.
7. Retainer not obstructs the field.

REFERENCES

1. Kaplan I, Schuman N. Selecting a matrix for a class II amalgam restoration. *J Prosthetic Dent* 1986;56:25-31.
2. Meyer A. Proposed criteria for matrices. *J Can Dent Assoc* 1987;1:851-53.

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