

Efficient, effective and child-friendly strip crown procedure

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Our practice is designed to appeal to children of all ages with a warm, welcoming atmosphere, and our successful kids-only concept has a proven track record of getting children to love their dentist—we have over 49,000 happy patients.¹ We provide excellent advanced, specialty-level care for infants, children, adolescents and patients with special health care needs, and this often includes restoration of primary molars and incisors.

While natural-looking restorations are not always as important in primary teeth, it has been beneficial to our practice to offer restorative options that provide a strong esthetic result. In fact, severely discolored primary incisors (often the result of bottle or pacifier use—“bottle mouth caries”) are regularly the reason parents initially seek restorative treatment for their children. Often seen in pre-school children, bottle mouth caries result from drinking sweet liquids from a bottle or feeder cup, or sucking on a bottle or pacifier throughout the night when there is reduced salivary flow.

3M™ Strip Crown Forms facilitate the natural esthetic restorations that parents seek for cavitated primary incisors. They are appropriate in combination with chemical or photo curing composites, but we are loyal to 3M restorative materials for their beautiful esthetics, strength, wear properties and handling benefits.

Strip crown forms simplify composite work for pediatric anterior restorations. Trimmed and filled with restorative materials, they automatically contour the restorative material to match natural dentition and strip off easily, leaving a smooth surface. Fast, effective and child-friendly, strip crown forms reveal a natural-looking composite restoration, and the composite repairs and protects the remaining tooth structure. The thin coping of the strip crown allows for the clinician to complete the restoration even when facing tight contacts.

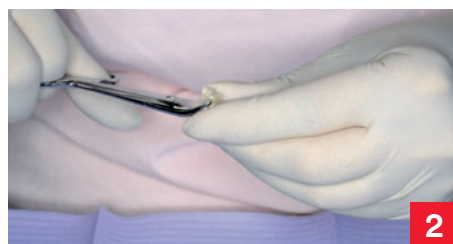
Case Presentation

Our young male patient presented with a carious primary upper incisor. I prescribe treatment of decayed primary incisors depending upon the stage of decay, as well as the age and cooperation of the child. In addition to determining the best course for restorative treatment, we speak with the parents to put a preventive program in place to prevent further decay—consisting of dietary counseling and the use of topical fluorides, take-home dentrifice or dental sealants where appropriate.

For the esthetic restoration of primary incisors, we use the strip crown form technique with a 3M™ Strip Crown Kit, which provides a range of sizes and crowns specifically designed and made for upper primary incisors.

When performing a strip crown form pediatric procedure, we first remove caries and perform pulp therapy if indicated (Fig. 1). Then we select and trim the strip crown form (Fig. 2). A tip we follow for size selection is to place the incisal edge of the crown form between the proximal surface of the adjacent tooth and then use a pair of fine, curved scissors for trimming. We try to keep a dedicated pair of scissors specifically for this task to keep them sharp.

Vents are then placed on mesial and distal corners of the incisal edge in order to allow for overflow of excess restorative material (Fig. 3). We try in the strip crown form and etch with 3M™ Scotchbond™ Universal Etchant (Fig. 4), offering consistency, ease of use, color for visibility and the ability to control placement. Then we bond to the enamel with 3M™ Scotchbond™ Universal Adhesive and light cure with the 3M™ Elipar™ S10 LED Curing Light (Fig. 5).



We utilize this particular adhesive because it can tolerate moist environments (often an issue with pediatric patients) and because it is quick and simple, with no mixing required, allowing us to maintain an efficient pace.

After the adhesive step, we apply the 3M™ Filtek™ Supreme Ultra Flowable Restorative (shade A1 is shown) to fill the undercuts, and we light cure it (Fig. 6). We then fill the strip crown form with a universal restorative using light pressure to avoid air bubbles (Fig. 7).

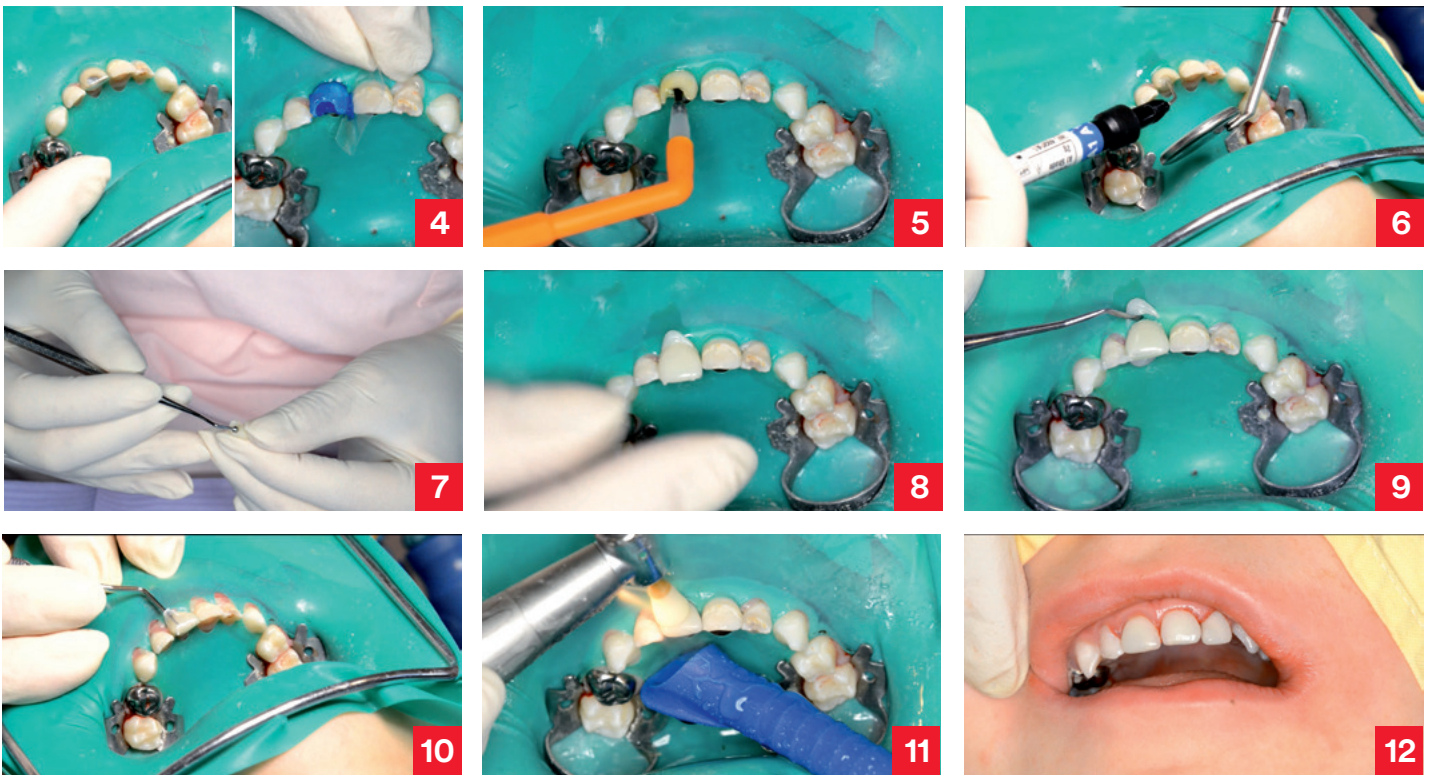
We gently press the strip crown form onto the tooth abutment, avoiding too much pressure to prevent splitting (Fig. 8). The excess composite material is removed and the strip crown form is light cured while still in place (Fig. 9).

When the restoration is fully cured, the strip crown form is removed with a pointed probe (Fig. 10), and we finish the

margins with a fine diamond bur or superfine 3M™ Sof-Lex™ Disc. We polish using a silicone cup or the 3M™ Sof-Lex™ Diamond Polishing System (Fig. 11) to complete the anterior restoration (Fig. 12).

Conclusion

The strip crown technique is a quick, simple and effective method for the restoration of primary incisors. Severe decay in anterior teeth can be concerning for both children and their parents, and we find that the esthetic outcome offered by this procedure can help to restore confidence. When using high-performance products to complete a strip crown procedure, we realize efficiency and benefit from procedural simplicity. The patient benefits from optimal results, a fast procedure and clinical efficacy.



About the author

Dr. Jacqueline Esch attended the University of Regensburg in Germany and graduated in 1990. Upon graduation, she worked at the university as an assistant professor and assistant dentist before joining a private pediatric dentistry practice in Munich in 1997. As part-owner of the practice since 1999, her primary research interests are in the areas of pediatric and adolescent dentistry. Dr. Esch has received

international recognition from the Pierre Fauchard Academy, and she has published extensively in the area of pediatric dentistry. Dr. Esch continues to grow her pediatric practice with over 20 years of professional experience. www.kinderzahnärzte.com

Dr. Esch has received honorarium from 3M Oral Care.

¹ International Practice for Pediatric Dentistry and Orthodontics, Dr. J Esch, Munich, Germany



3M Oral Care
2510 Conway Avenue
St. Paul, MN 55144-1000 USA
Phone 1-800-634-2249
Web 3M.com/dental

3M Canada
Post Office Box 5757
London, Ontario N6A 4T1
Canada
Phone 1-888-363-3685

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