

Technical Guide

Instructions for Use and General Information

- Selecting a Crown and Occlusal Evaluation
- Preparation of the Tooth
- Shortening a NuSmile Signature Crown
- Seating and Finishing a Crown
- Disinfection Methods
- Suggested ADA Coding



Intended Use: NuSmile Signature Pediatric Crowns are designed for full coverage restoration of damaged or decayed primary teeth.

Welcome to the beautiful possibilities of NuSmile Signature Crowns. As with any new procedure, the challenge of mastering a new technique presents itself. This guide is intended to provide the technical information needed to successfully use NuSmile Signature Crowns. • Your success is important to us, questions and comments are always welcome.

- **Selecting a Crown**

Always choose the crown size before tooth preparation. Approximate the original size of the non-carious tooth and choose the crown size that looks most natural in the child's mouth. Clinicians, patients and parents are always happier with a natural looking crown of the correct size than with a bulky, oversized crown that looks too large. As a general rule, whatever size stainless steel crown (SSC) you would deem an appropriate fit; approximate one to two sizes smaller for a NuSmile Signature Crown. Downsizing compensates for the additional thickness of the esthetic coating. This is particularly important in cases with tight interproximal contacts, crowded dentition, or mesial-distal space loss. Very short clinical crowns and crowded dentitions may not be ideal for beginning case selections. **Caution: Single-use only. If**

reused, crown could be contaminated and could pose risk of infection. Determine crown size by using a traditional stainless steel crown, then choose a NuSmile Signature Crown that is one to two sizes smaller.

- **Preparation of the Tooth**

The single most important aspect of mastering the use of NuSmile Signature Crowns is the proper preparation of the tooth. Adequate preparation of the tooth will significantly improve esthetics and crown fit, will reduce occurrence of veneer fracture and will save operating time. The tooth should be prepared to fit the crown so that the crown fits the tooth passively without using pressure. If the metal substructure flexes from pressure during fitting or seating, micro-fractures are likely to occur. Micro-fractures will lead to fracture or complete loss of the esthetic coating. Veneered SSC's require a greater amount of tooth reduction than traditional SSC's. Perform appropriate pulpal therapy as necessary.

Anterior teeth: Reduce the incisal length of the tooth by approximately 2mm and open the interproximal contacts. Continue by creating a feather-edge margin as far subgingivally as possible. The tooth is reduced by approximately 25 to 30%. For preparing the tooth subgingivally, and refining the preparation, tapered diamond burs are normally used, proceeding from coarse to fine as the preparation is completed.

Posterior teeth: The tooth should be reduced by approximately 30% overall. More preparation of the buccal and occlusal aspects of the tooth will be required with the occlusal aspect of the tooth needing to be reduced by at least 2mm (an equal amount of additional sub-gingival preparation will also be required). A coarse football diamond bur is a good choice for the first phase of preparation. A fine tapered diamond or carbide bur may be used to open the interproximal contacts and to begin circumferential reduction of the tooth. A coarse tapered diamond or carbide bur may be used to create a feather-edge margin and complete the reduction. This bur is also used to substantially reduce the tooth on the buccal aspect of the preparation to allow a natural gingival contour when the crown is seated. Occasionally it may be advantageous to slightly reduce the interproximal aspect of adjacent primary teeth to facilitate fitting posterior veneered crowns.

Note about soft tissue: Anterior or posterior crowns should fit subgingivally without distorting the gingival tissue. If the gingival contour is not natural, then more tooth structure must be removed. With proper crown placement and oral hygiene, good gingival health should be expected within 7-10 days.

Continued on reverse side



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Restore with confidence

Email NuSmile Clinical Questions
Directly to an Experienced Clinician



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Continued from reverse side

• Shortening a NuSmile *Signature* Crown

In some cases shortening the crown from the gingival margin will be necessary to achieve the desired results. The *Signature* Shortening Bur may be used at low range speed with a water spray to circumferentially reduce and feather the crown margins. After shortening, our low speed one step composite polisher may be used to restore a polished surface to the esthetic coating. Short NuSmile *Signature* Crowns are also available.

• Seating and Finishing a Crown

A properly fitted crown should have a passive fit and be seated with finger pressure only. A “snap fit” is both undesirable and counter-productive as it may result in failure of the veneer. Clean teeth of saliva, blood or debris and reasonably control gingival hemorrhage. To cement the crown, NuSmile BioCem® Universal BioActive Cement or high quality glass ionomer cement is recommended. Crimping should not be necessary. However, if you feel you must crimp, then do not crimp excessively or near the esthetic coating. Doctors who have the highest success rates do not crimp the crowns. Once seated hold crowns firmly in place until cement is set. After allowing enough time for the cement to set, clean up can be accomplished. The opposing teeth may be slightly adjusted as necessary if the crown is in hyperocclusion. With the anterior crowns it may be desirable to trim the veneer coating flush with the incisal edge of the crown if the patient demonstrates bruxism patterns or end-on occlusion. The distal point angle may also be rounded to shape the crown for a right or left anterior.

• Disinfection Methods

NuSmile crowns are provided in clean non-sterile packaging. Clinician may choose to sterilize before use. Cold sterilization is recommended. Follow the instructions of the manufacturer of the sterilant.

• Suggested ADA Coding

Refer to “Other Restorative Services”

D2934 – Prefabricated esthetic coated stainless steel crowns – primary tooth. Stainless steel primary crown with exterior esthetic coating.

“Parent / Guardian: Instructions for Safeguarding Your Child’s New Crowns”

Available for download at: www.nusmilecrowns.com/pdf/nsc_ParentGuardianInstruction.pdf

You may use this sample text or create your own document. Contact our office or visit our web site for the digital text content.

Precaution: The stainless steel substructure of this product has an approximate 8-14% nickel content. Allergic reaction may occur in individuals highly sensitive to nickel.

Additional Cautions, Storage and Maintenance

Wear personal protective equipment (gloves, mask and eyewear) while handling the crown. Do not use the product for any other purpose. Store crown at room temperature, away from direct sunlight or flame, in a clean and dry place.

Rx Only



Email NuSmile® Clinical Questions
Directly to an Experienced Clinician



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