

# PEDIATRIC CROWNS ARE GROWING UP!



NuSmile® ZR  
ZIRCONIA

# SUPERIOR SCIENCE SUPERIOR SMILES

"I've been working with these NuSmile permanent molar crowns for over 3 years and they've exceeded my expectations."

- Dr. Paul Bahn



When NuSmile began development and clinical testing of **Esthetic Permanent Molar Crowns**, it did so with a specific purpose in mind. It has been widely reported that first permanent molars are the most caries prone tooth in the permanent dentition. More than 50% of children over the age of 11 years have some caries experience in this tooth. In cases of Molar Incisor Hypomineralization (MIH), affected molars have a 10-fold higher risk of developing caries. MIH is a decrease in the mineral content of the enamel. It can be severe enough to give the tooth extreme hypersensitivity and leads to soft enamel and an increased susceptibility to decay. The condition's low resistance to rapid enamel breakdown can have devastating effects soon after tooth eruption in as many as 20 - 40% of children's newly erupted first molars. NuSmile's new permanent molar crowns were created with the purpose of being a **new solution to address Early Childhood or Adolescent Tooth Decay, and MIH** as an alternative to using stainless steel crowns.

NuSmile's Permanent Molar Crowns offer the following benefits toward helping clinicians provide their patients a full coverage restoration that is cost effective, conservative, and highly esthetic. What's more these permanent molar crowns are **Tested, Trusted and True** bearing the same extraordinary NuSmile performance, **backed with 5 years of clinical use**. These crowns are capable of meeting the everyday needs of patients throughout early childhood and growing into young adults. NuSmile ZR permanent molar crowns exceed clinicians expectations and delight both parent and patients so they can smile with confidence.

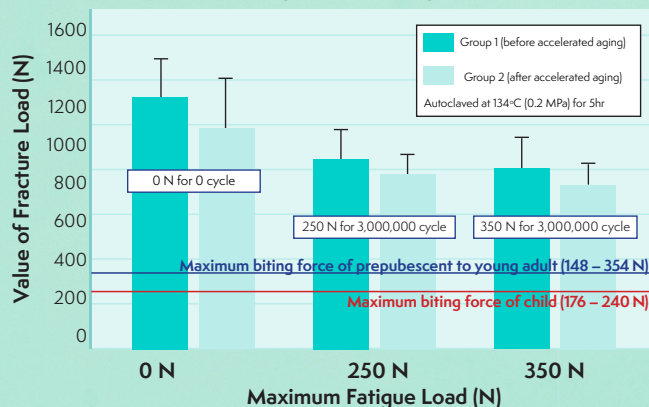
*NuSmile ZR withstands the maximum biting force at all stages of development from early childhood to young adult after artificial aging and 3,000,000 cycles of cyclic fatigue*

### Maximum Bite Force Analysis in Different Age Groups

AGE GROUP	MALE (bite force in newtons)	FEMALE
Prepubescent	354.01	243.71
Pubescent	285.84	227.34
Postpubescent	238.03	148.73
Young Adult	262.28	345.26

P Takaki, M Vieira, S Bommarito. Maximum Bite Force Analysis in Different Age Groups. Int Arch Otorhinolaryngol 2014;18

### Value of Fracture Load after Cyclic Fatigue Testing NuSmile ZR



Sponsored Research Agreement



- Available in sizes 2 through 7
- Superior in esthetics, strength, fracture resistance and wear
- Shorter and wider than traditional SSCs
- Easy to use - conservative preparations compared to custom lab fabricated crowns
- Nature replicating shade and translucency
- Preferred by parents and patients

**PERMANENT MOLARS** LOOK BETTER IN WHITE

# SUPERIOR SCIENCE FOR PRIMARY TEETH



Made of zirconia ceramic, **NuSmile ZR** offers superior nature replicating esthetics, ultimate durability and easy placement. NuSmile ZR and matching Try-In crowns are part of our easy and convenient complete zirconia crown system that delivers the results you want for your patients.

**"All NuSmile crowns do a wonderful job of maintaining the proper anatomy and mimicing the natural dentition."**

*- Dr. David Evans*

**"NuSmile ZR crowns save time in more ways than one. Less tooth reduction means less chair time. Because other brands of pediatric zirconia crowns don't offer Try-In crowns, once the right size crown is identified it has to be cleaned in a time-consuming attempt to remove any blood and saliva debris that may compromise cementation."**

*- Dr. LaRee Johnson*



NuSmile ZR crowns are tested and tested again to ensure they meet the everyday use of children of all ages and are **the only zirconia pediatric crown proven to wear comparable to natural primary enamel**. Additionally, these are the **ONLY** zirconia pediatric crowns with **2 and 3\* year prospective clinical results** confirming performance comparable to stainless steel crowns and 100% parent preference for NuSmile ZR crowns.

### Wear of Primary Tooth Enamel by Ceramic Materials *Pediatr Dent* 2016; 38(7)

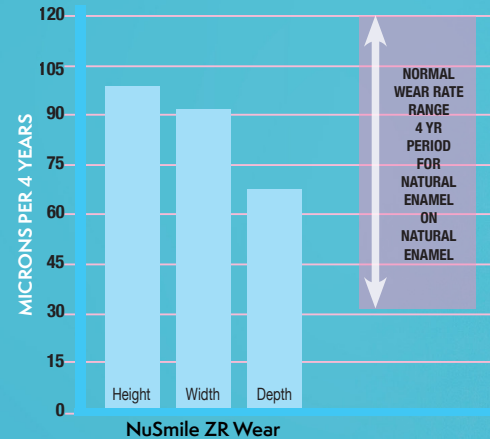
Davette Johnson-Harris, DDS, MSD • Brett Chiquet, DDS, PhD • Catherine Flaitz, DDS, MS • Gary Badger, DDS, MS • Gary Frey, DDS.

“Zirconia on opposing primary enamel produced a clinically acceptable amount of wear.”

“Although enamel wear was documented, the amount of in vitro wear was minimal.”

“The results of this study seem promising for the use of zirconia crowns in the primary dentition.”

**Conclusion:** *This use of highly polished monolithic Y-TZP zirconia crowns can provide clinically acceptable opposing tooth wear.*



Frey et al. Houston center for Biomaterials and Biometrics

### Prospective Randomized Clinical Trial of Primary Molar Crowns: 24-Month Results. *Pediatr Dent* 2018; 40(4)

Kevin J. Donly, DDS, MS • Issa Sasa, DDS, MS • Claudia Isabel Contreras, DDS • Maria Jose Cervantes Mendez, DDS, MS.

“At the 24-month evaluation of this study, of the 36 zirconia crowns there were no failures.”

“Based on this study's results, it can be concluded that, at 24-months, NuSmile ZR zirconia crowns clinically performed as well as SSCs.”

“The only significant difference was in parental satisfaction with the zirconia crown preference.”

**Conclusion:** *Current 24-month results indicate that zirconia primary molar crowns perform similarly to an established stainless steel crown for restoration of primary molar teeth.*



A representative NuSmile ZR mandibular primary second molar crown at 24 months. Discoloration can be noted from occlusion with an opposing stainless steel crown.



Example of a representative bitewing radiograph at 24 months.



Representative NuSmile ZR mandibular primary first molar crowns at 36 months.

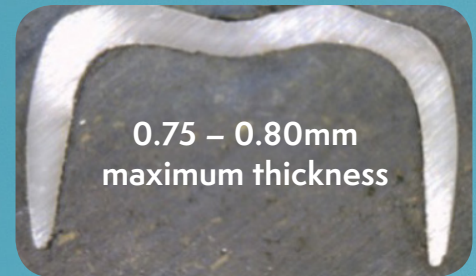
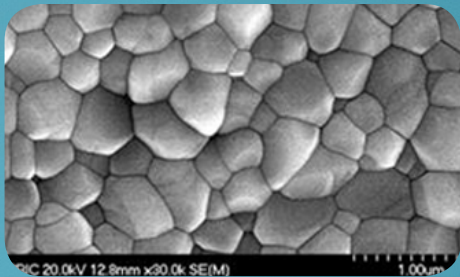


\*LOOK FOR 3 YEAR PUBLISHED RESULTS COMING SOON!

# NuSmile® ZR

ZIRCONIA

All of NuSmile's products are designed and manufactured to satisfy and exceed the expectations of the most demanding clinicians. NuSmile ZR with matching Try-In crowns and Master Kit configurations are the perfect balance of art and science ensuring, all of our products are **Tested, Trusted, and True** to their purpose. For example, our Master Kits were built to optimize and organize crowns based on the most popular combinations used by clinicians and to make transporting their favorite crowns a breeze.



**Patented injection molding** delivers unique properties not possible with other brands - uniform particle size for strength, highly retentive intaglio bonding surface, knife-edge margins and minimal crown thickness.

- Quick and Easy to Use
- Eliminate hemorrhage or SDF show through
- Minimal tooth reduction (0.5-1mm average)
- 100% Parent Satisfaction
- Superior Esthetics and Biocompatibility
- Ultimate Zirconia Durability
- Proven Results - 7 years and counting
- Backed by Clinical Science

## ALL SMILES LOOK BETTER IN WHITE

# RULE RESTORATIONS WITH **NUSMILE TRY-INS**

NuSmile's Try-In Crowns are a simple and elegant tool for quicker and more efficient restorations. Our Try-In Crowns are precision manufactured to be identical in size and shape to NuSmile ZR crowns for trial fitting and preparation refinement. By using Try-In crowns you eliminate extra cleaning steps recommended for achieving successful restorations by avoiding any contamination with saliva or hemorrhage which would otherwise significantly reduce cement retention. Take advantage of our Try-In crowns and rule your restorations with confidence!



NuSmile®    
ZIRCONIA *Try-In*



- Matching set included with all NuSmile ZR kits
- Unique pink finish to distinguish from actual crowns
- Autoclavable for repeated use to test crown fit
- Eliminates chances of contaminating valuable crowns
- Reduces extra steps during restorations - saves chair time
- Ensures ideal fit and retention for lasting patient smiles

# PASSION MAKES PERFECT SMILES

## PEDIATRIC (PRIMARY TOOTH) KITS

### TESTED:

- NuSmile ZR crowns work with any cement
- NuSmile ZR's unique internal retention pattern, consistent thickness and uniform particle size prevent fracture associated with competitors crowns
- Can withstand the bite force of children of all ages
- Wear comparable to natural enamel
- A superior esthetic alternative to traditional SSCs

### TRUSTED:

- Science-backed crown design
- Independently tested
- Try-In crowns do the dirty work - no cleaning, no contamination

### TRUE:

- Esthetics that parents love
- Durability and ease of use dentists depend on



PERMANENT MOLAR KITS

## MASTER KITS

