Get it, Got it, Glue it

Timothy M. Bizga, DDS, FAGD

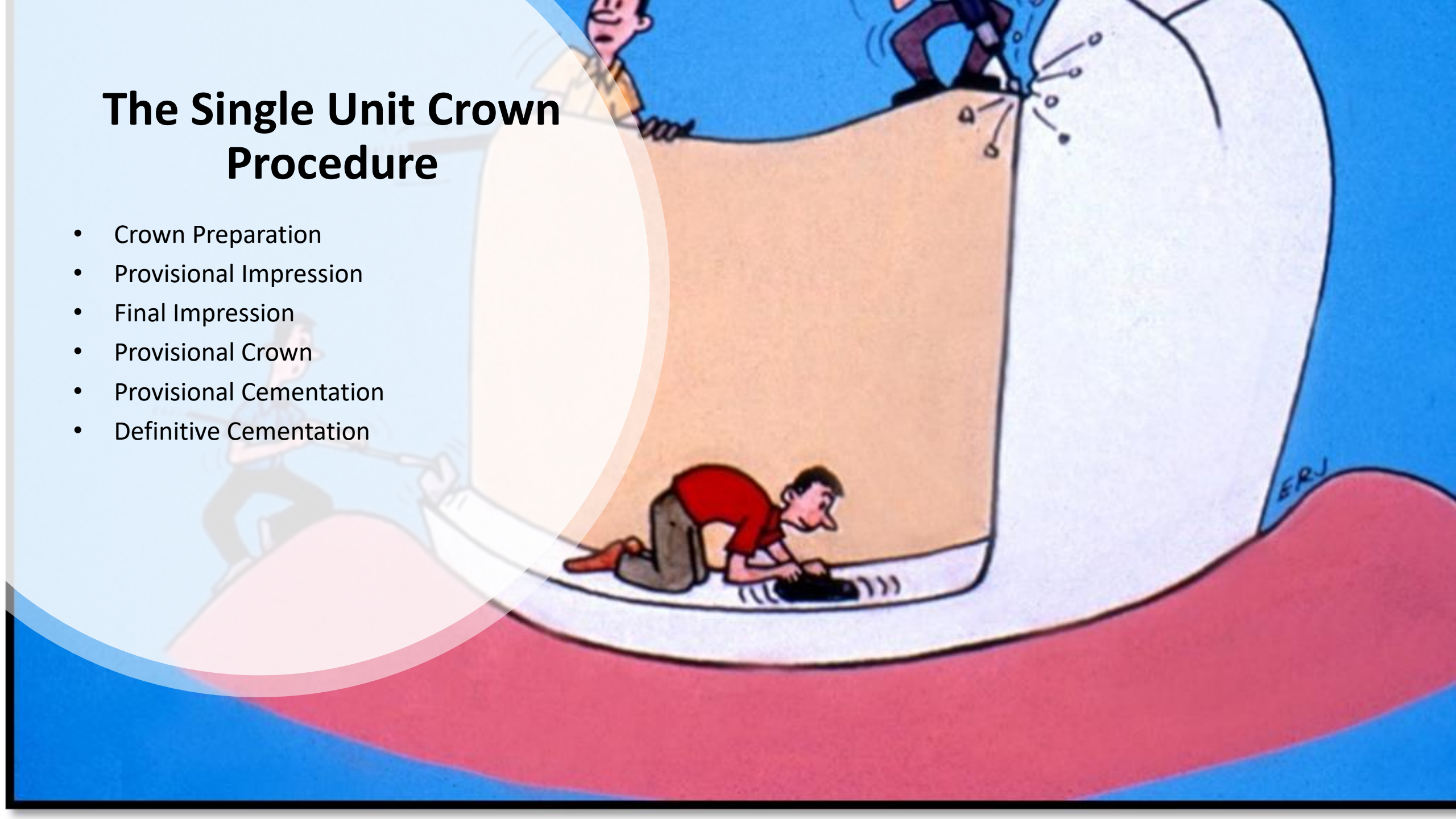

CLINICA DENTAL
LUNES Y MARTES
Mañanas – de 10 a 2 horas
Tardes – de 5 a 8 horas
Tlf. 925 22 67 61

Holy Toledo


CROWNED TEETH

The Single Unit Crown Procedure

- Crown Preparation
- Provisional Impression
- Final Impression
- Provisional Crown
- Provisional Cementation
- Definitive Cementation

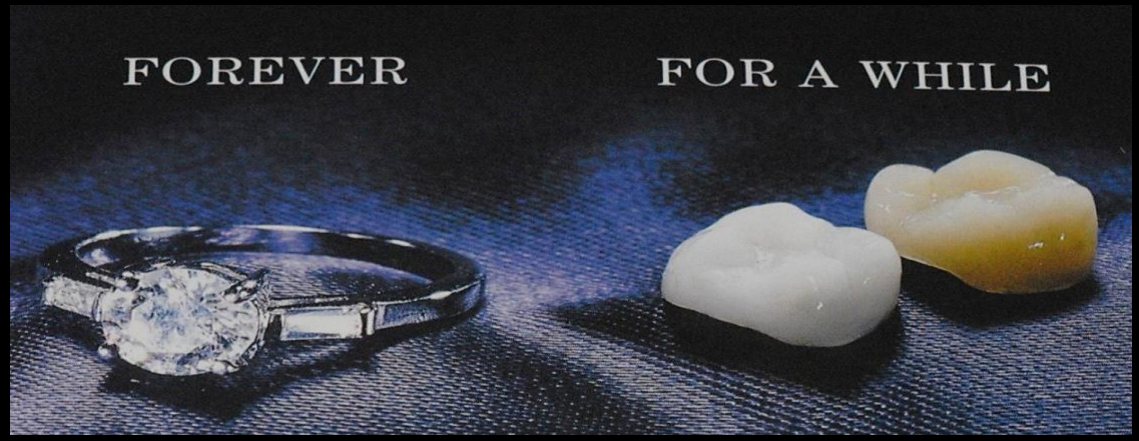


Fixed Prosthodontic Landscape

- An average office performs **256 single unit crowns** per year
- 256 x 150,000 general dentists = **38 million** single unit crown proce

Provisional or Temporary Restorations

…In dental school I was taught……



“Don’t make the temporary too nice or the patient may not come back for the final crown!”

Function of Temps

- Maintain static contacts
- Calm state
- Maintain occlusion
- Trial OVD

Adequate Anatomy

Minimal Inflammation

Features of Provision Materials

1. Polymerization Choice
   - Dual v. Auto
2. Air-inhibited layer
3. Fluorescence
4. Flaking when trimming
   - Margin design
5. Fracture Strength
   - Clearance
6. BPA free

Fluorescence

	TEMPSMART™ (light cure)	Protemp Plus†	Luxatemp Fluoresence†	Luxatemp Ultra†
Thickness: 1.5mm				

	Integrity†	Integrity Multi Cure† (light cure)	Structur2†	Structur3†
Thickness: 1.5mm				

Selecting the Provisional Material

- Methacrylates
  - (poly) methyl
  - (poly) ethyl
  - Vinyl methyl
  - Ethyl methyl
- Composites
  - BIS-Acryl
  - BIS-GMA Resins
  - UDMA

Light Curing the Provisional

- Let the material set for 90 seconds in the mouth then remove and command set with 20 seconds of light curing

Taking a Matrix Impression

- Use an impression tray (closed bite, closed tray, quadrant tray, custom tray, etc)
- Create a putty matrix

Try in the tray first!

Taking a Matrix Impression

Bleed the cartridge twice

Taking a Matrix Impression

Load the tray, don’t overfill

Taking a Matrix Impression

Pucker up!

Taking a Matrix Impression

For a closed or stock tray, stabilize using a claw grip

Taking a Matrix Impression

Evaluate the impression

Taking a Matrix Impression

Hands On

- Impression of Model with #30 unprepped
- Remove #30, and place prepped molar #30

Preparing the Matrix

- The matrix impression can be modified to ensure the provisional:
  - creates better interproximal contact
  - Increases thickness of material

Bleed the cartridge **twice**

Dispensing the Provisional Material

Dispensing the Provisional Material

- Fill approximately ⅔ of the tooth in the matrix impression, don’t overfill to prevent excess

Seating the Matrix

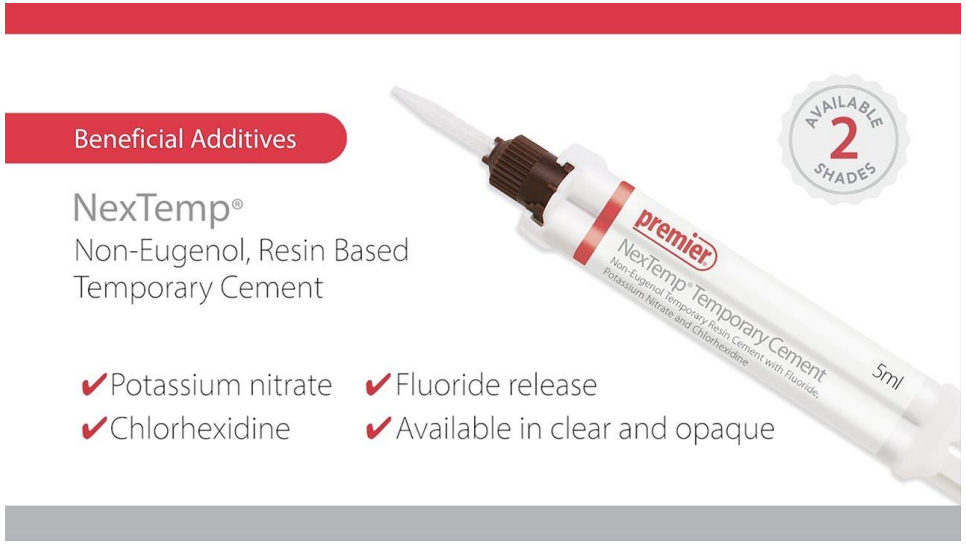
- When using a closed bite tray, re-seat tray into the mouth making sure it is fully seated and the teeth fit into the impression with the patient fully closed

Light Curing the Provisional

- Let the material set for 90 seconds in the mouth then remove and command set with 20 seconds of light curing

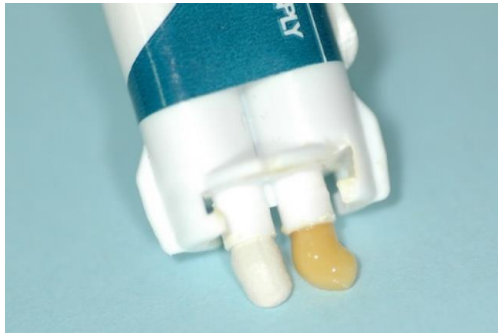
Types of Provisional Cements

- Resin-Based
    - NexTemp (Premier)
    - Tempbond Clear (Kerr)
- Zinc Oxide Eugenol
    - TempBond (Kerr)
- Zinc Oxide NonEugenol
    - Temp Grip (Dentsply)
- Polycarboxylate
    - Durelon (3M ESPE)



Value Added Clinical Benefits

The amount of money it can cost a practice when a patient has to return to have the provisional re-cemented (in lost production, time, materials)

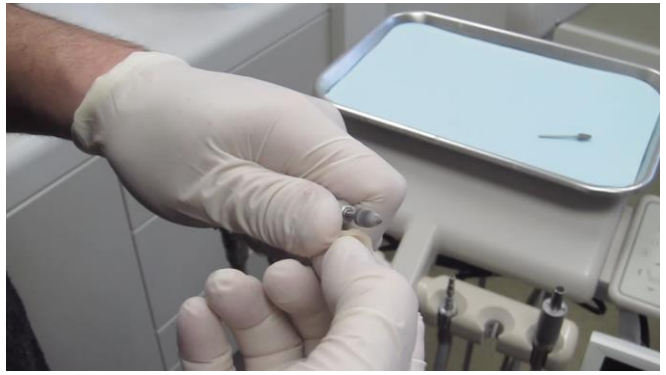


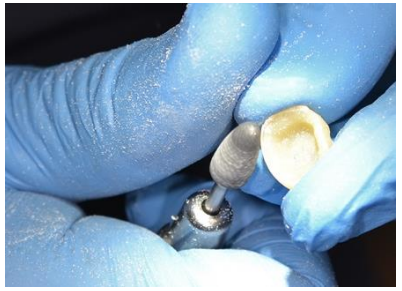
Universal Technique Tips

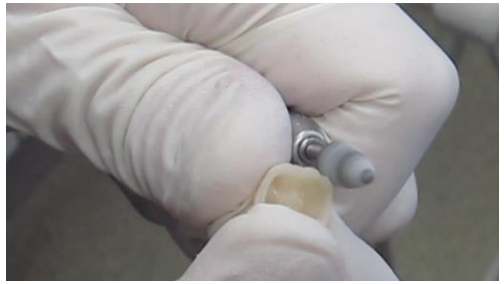
Bleed the syringe twice!

Best Practice Tips For Cementing Temps

- Do not desiccate the tooth before seating!
- Moist cementation reduces opportunity for sensitivity
- Barrier results in the cement staying on the provisional and not on the tooth

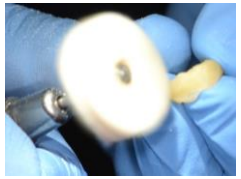






Trimming, Adjusting, Polishing

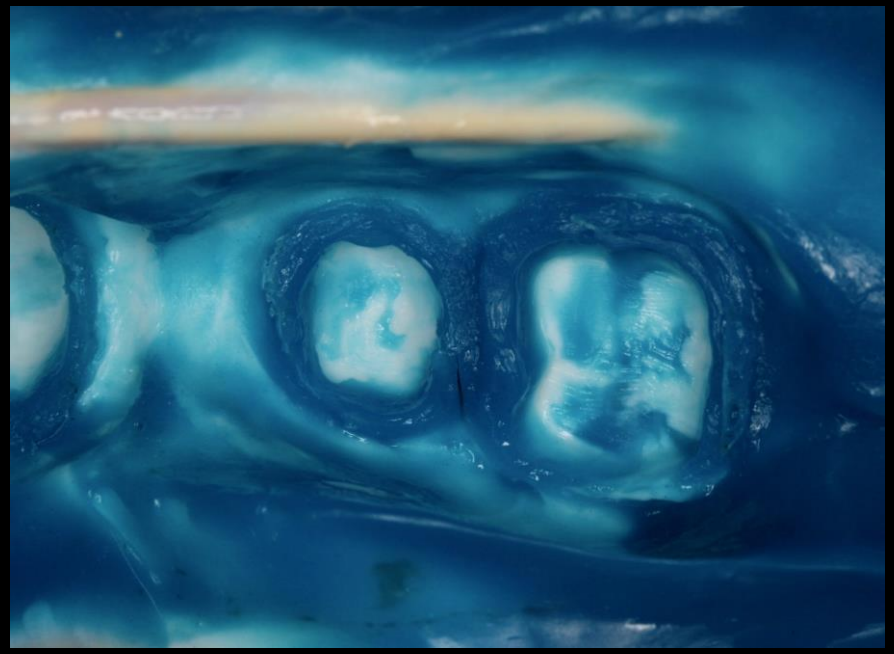
- Trimming:
  - Use a straight nose handpiece and acrylic burs
  - Palm-thumb grip



Trimming, Adjusting, Polishing

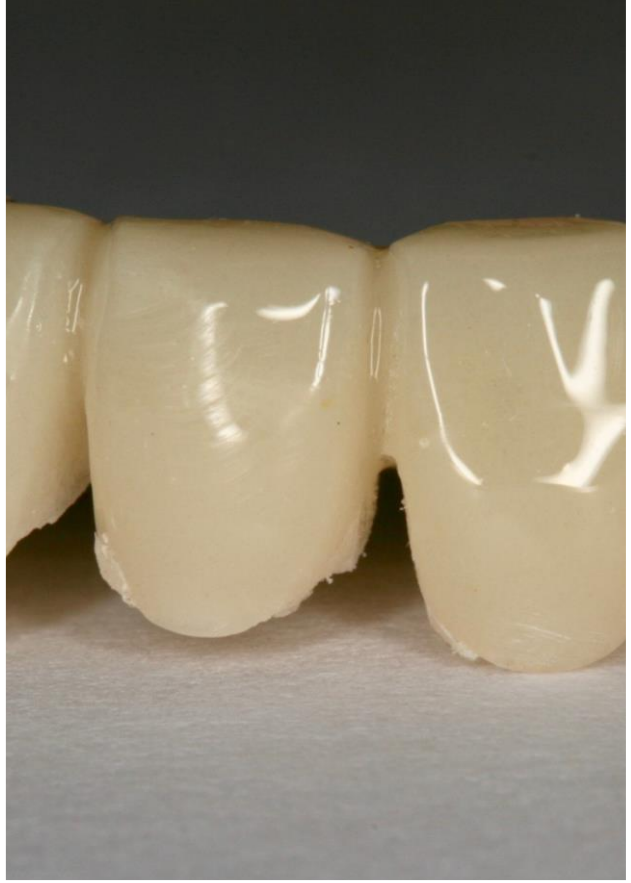
- Polishing:
  - Use a straight nose handpiece and brushes or rag wheels
  - Palm-thumb grip

Pre-Fab Temps to Try-Vertical Dimension



Ultra X-Tra


TRAY MATERIAL CARTRIDGE REFILL
DENTSPLY
AquasilUltra Xtra
Smart Wetting® Impression Material
Quadrafunctional Hydrophilic Addition Reaction Silicone
Type 2: Medium-Bodied Consistency (ISO 4823)



Keep Embrasures OPEN

PHARMACOLOGY

Chlorhexidine allergy: raising awareness about rare but potentially life-threatening reactions

Mark Donaldson, BSP, ACPR, PHARMD, FASHP, FACHE ■ Jason H. Goodchild, DMD

Chlorhexidine (CHX) is an antiseptic agent commonly used in many areas of clinical dentistry. Despite the ubiquity of CHX, dental products containing this agent can cause various hypersensitivity reactions that range in severity from type IV, delayed hypersensitivity (usually manifesting as urticaria and dermatitis or fixed drug eruptions), to type I, which has serious and life-threatening consequences (immediate hypersensitivity and anaphylaxis).[1-6] The prevalence of CHX hypersensitivity is unknown; it is considered rare, but case reports in recent years have highlighted the need for awareness, especially recognition that allergic contact dermatitis may predispose patients to more serious type I reactions on subsequent CHX exposure.[4,5-6]

Given the number of dental products that contain CHX (such as mouthwashes, toothpastes, gels, periodontal chips, cavity cleansers, varnishes, and hand sanitizers), it is likely that hypersensitivity reactions following the use of CHX in the dental setting will continue to increase.[5,9,10] In 2014, the UK Medicines and Healthcare Products Regulatory Agency updated an earlier warning to healthcare providers about the risk of anaphylactic reactions due to CHX allergy.[11,12] More recently, the increased prevalence of CHX allergies was highlighted by a Drug Safety Communication published by the US Food and Drug Administration (FDA) in February 2017.[13] In this alert, the FDA warned of rare but potentially serious allergic reactions from CHX-containing products, stating that "the number of reports of serious allergic reactions to these products has increased over the last several years."[13] The basis of the FDA Drug Safety Communication was several recent reports of anaphylaxis, including 2 deaths.

History of CHX in medicine and dentistry

CHX was developed in the 1940s by Imperial Chemical and was first approved for use in 1954 in the United Kingdom, soon becoming available in other countries.[5,14,15] CHX mouthrinse was introduced in 1969 by Löe, and subsequent studies demonstrated that 2 daily mouthrinses with 0.2% CHX gluconate in conjunction with mechanical oral hygiene measures prevented plaque formation and the development of gingivitis.[16-18] During a 2-year study by Löe et al, no adverse health effects were observed among users, and the only negative outcome was tooth staining.[18]

A CHX gluconate mouthrinse was approved for use in the United States by the FDA in 1986, and Procter & Gamble began selling the agent under the brand name Peridex.[19,20] Although 0.2% CHX gluconate mouthrinse was available in Europe during this time, Peridex was approved at the 0.12% concentration, primarily to mitigate brown tooth staining. In 1986, Peridex also became the first oral healthcare product to receive the American Dental Association Council on Dental Therapeutics' seal of acceptance for control of plaque and gingivitis.[20,21] The studies by Procter & Gamble that helped to bring Peridex to market showed limited tooth staining at the reduced concentration but also listed other common side effects following oral use of this product, including increased calculus formation and alterations in taste.[20-22] CHX is included in the World Health Organization's *WHO Model List of Essential Medications*.[23]

Currently in dentistry, CHX is used for the prevention of primary and secondary gingivitis, periodontal disease, and caries; surgical and endodontic irrigation; management of postoperative sensitivity; and cavity disinfection. In addition to the gluconate mouthrinse formulation, which became generic in 1994, CHX can now be found in gels, sprays, toothpastes, discs, chips, varnishes, sugar-free chewing gum, and hand sanitizers.[15,24,25]

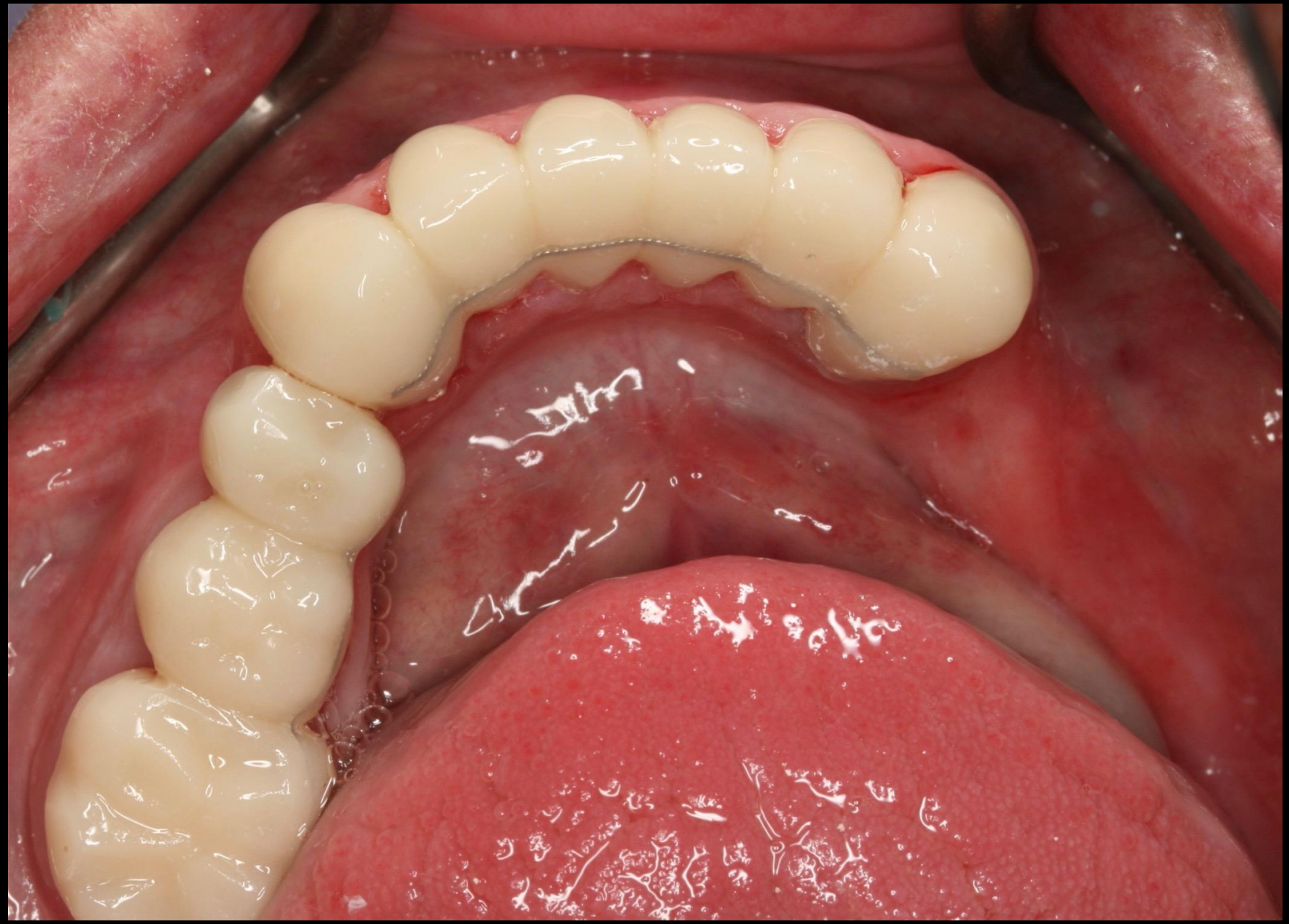
Pharmacology of CHX

CHX is a synthetic bisbiguanide topical antiseptic with a symmetric molecular formula consisting of 4 chlorophenyl rings and 2 biguanide groups connected by a central hexamethylene bridge (Figure).[24,26] It is a broad-spectrum antimicrobial exhibiting concentration-dependent bactericidal and bacteriostatic effects. CHX is effective against gram-positive and gram-negative bacteria, fungi, and some

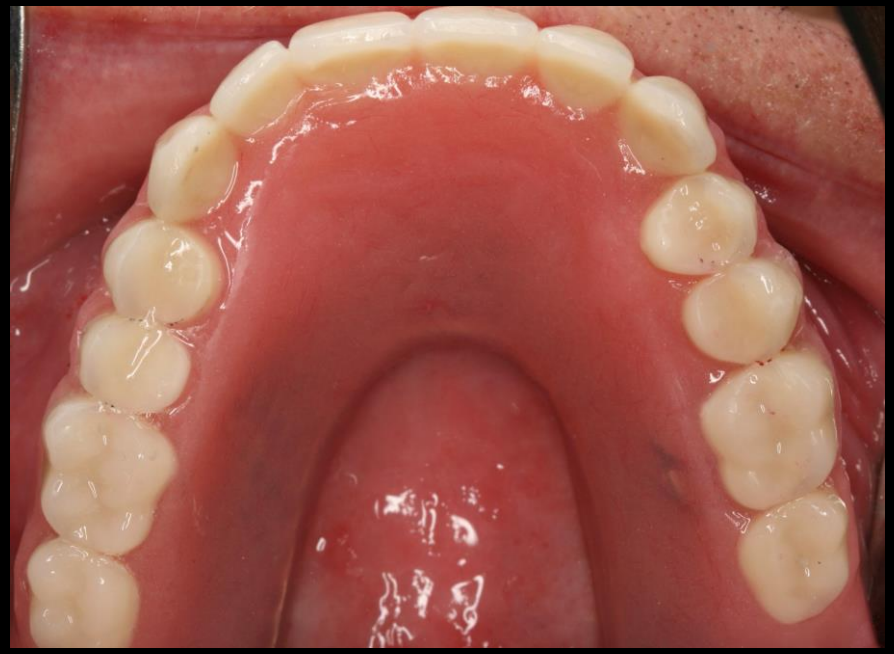
Go-To Product

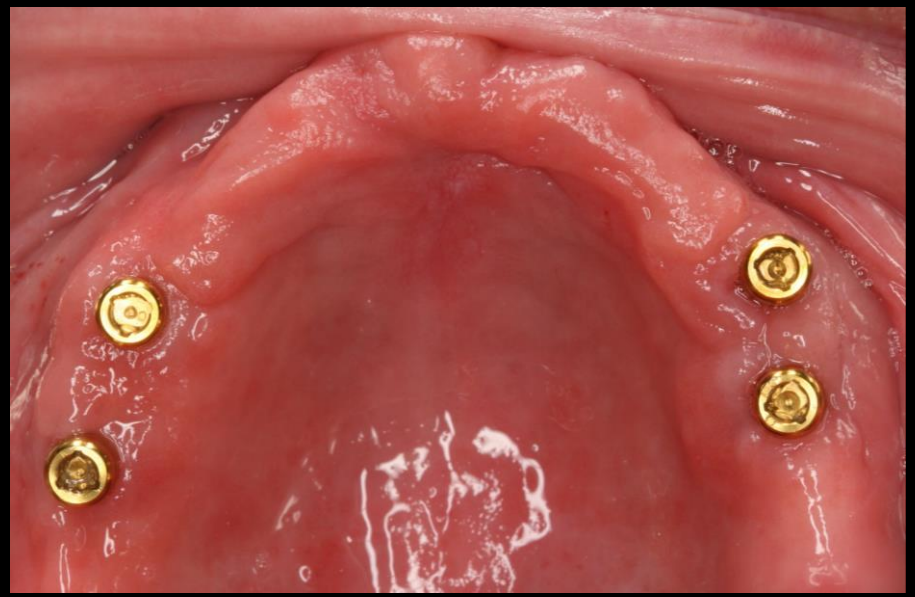
Temp Grip


Sirona
Integrity® TempGrip®
Temporary Crown & Bridge Cement
Zinc Oxide Non-Eugenol




Bisco
ZirClean
Restoration Cleaner





Final Upper

Final


SUMMARY

“Some days I feel like a turtle on a fence post…”

Dr. Tim Bizga

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