INTRODUCTION

Definitions

Temporary = Provisional = Non-Permanent = 2-26 weeks

EXAMPLES: Temporary crown fabrication procedures:

a. DIRECT – intraoral fabrication (and intraoral/extraoral curing)
   1.mix and add to pre-impression; 45s = insert in mouth; 1min = initial set; 2min = remove; 6min = trim; 7min = contour and polish; 12min = cement in mouth.

b. INDIRECT – extraoral or laboratory fabrication

INTRODUCTION

Preparation of Temporary Bridge

1. MANIPULATION GOALS:
   a. Clinical concerns: ease-of-use; versatility; low cost; easy to repair
   b. Reaction: Fast; low polymerization exotherm; high percent conversion
   c. Minimal surface reactions: O2 inhibition on curing; no interactions with impression material (e.g., PVS) causing surface inhibition

2. PHYSIOLOGIC GOALS:
   a. Protection of hard and soft tissues; stabilization of tooth; functional for chewing
   b. Therapeutic (indirect pulpal medication); patient comfort

3. MATERIALS PERFORMANCE GOALS:
   a. Good esthetics: good color matching; stain resistance (coffee and tea)
   b. Good fracture and wear resistance
   c. Good biocompatibility – no sensitivity reactions

4. POST-TEMPORIZATION GOALS: No interference with cements for permanent restoration

CLASSIFICATION

Provisional Restorations and Cements

1. Provisional restorations:
   a. Intracoronal Restorations:
      1. ZOE-based and/or ZONE-based temporaries
   b. Preformed Provisional Shell Crowns (and Cements):
      1. Polycarbonate Crowns
      2. Metal Alloy Crowns
      (Al: Anodized Al, Sn-Ag, Stainless Steel, Ni-Cr)
   c. Custom-Fabricated Provisional Crowns:
      1. MMA-like products – self-cure
         (MMA/PMMA, IBMA/PBMA, EMA/PEMA)
      2. Epimine-imine products – self-cure
      3. Bis-acryl, bis-methacryl, Bis-GMA-like
         (a) Resins
         (b) Composites

2. Provisional (Temporary) cements:
   a. ZOE-based or ZONE-based cements
   b. Calcium hydroxide cements
   c. "Admix cements" (Cements mixed with vaseline or petroleum jelly)
   d. Composite cements (without bonding systems)

PRODUCTS

Provisional Restorative Materials
PRODUCTS
Temporary Cements

Temporary Cements:
1. Zest Contour (L.
2.Temp.
3. Densitas (Phil.
4. KeraTemp (Kerr)
5. Locust (3M)

POPULARITY
1999 Provisional Materials Market Share (~$20 Million)

<table>
<thead>
<tr>
<th>Material</th>
<th>Market Share</th>
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<tbody>
<tr>
<td>DMG/Zenith Luxatemp</td>
<td>25%</td>
</tr>
<tr>
<td>Caulk Integrity</td>
<td>15%</td>
</tr>
<tr>
<td>ESPE Protemp</td>
<td>32%</td>
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<tr>
<td>Kerr Temphase Fast Set</td>
<td>8%</td>
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<tr>
<td>Parkell Snap</td>
<td>5%</td>
</tr>
<tr>
<td>Bosworth Trim</td>
<td>5%</td>
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<tr>
<td>Other All Types</td>
<td>10%</td>
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</tbody>
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Self-Cure Composite Resins

- 84% Methyl & Ethyl Methacrylates
- 12% Dual-Cure Composite Resins

PROPERTIES
Examples of Chemical, Physical, and Mechanical Properties

- Bis-Acryl and Bis-Methacryl Materials
  - Temphase™
    - Temporary crown and bridge material is a two-component (catalyst and base) material dispensed and mixed by a cartridge/static mixing tip combination. Temphase is intended for use in both short- and long-term crown and bridge temporaries. The material is compatible with light-cured composites for repair and characterization. Temphase contains methacrylate components and is radiopaque for easy radiographic identification. Available in two set times.

EXAMPLES
MMA/PMMA Materials

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THANK YOU