Remember the choose-your-own adventure books we all read in grade school? The ones we'd get part of the way into and then hit a fork where we'd need to pick one of two or three directions.

These were the books always checked out of the library because even the kids who didn't like to read liked the unpredictability of the stories, because they were interactive and because we all liked to feel we were in control of the book's end.

Restorative procedures, it turns out, are also a lot like these choose-your-own adventure books and most times, there are many directions in which a doctor can go with a restoration.

The flow charts in this section go from start to finish. They include the questions you should ask while you're treatment planning and practicing, they mention various products you might be using, and they explain basic processes like direct and indirect restorations, cement, bonding and color choice.

So read on, learn on and choose the way you want to practice restorative dentistry.
**Flowable Composites**

- **Accolade** – Danville Materials
- **ÆLITEFLO** – BISCO, Inc.
- **ChemFil Rock** – DENTSPLY Caulk
- **CLEARFIL MAJESTY Esthetic** – Kuraray America, Inc.
- **Estelite Flow Quick** – Tokuyama Dental America Inc.
- **Filtek Bulk Fill Flowable Restorative** – 3M ESPE
- **Filtek Supreme Ultra Flowable Restorative** – 3M ESPE
- **Flow-It ALC** – Pentron Clinical
- **Flow-It ALC** – Pentron Clinical
- **Grandio Flow** – VOCO America, Inc.
- **Profilo Pentaflow** – Ultradent Products, Inc.
- **SureFill** – Kerr Corporation
- **Venus Flowable** – DenMat
- **Vitremer** – 3M ESPE

**Anterior Composites**

- **ALITE Aesthetic Enamel** – BISCO, Inc.
- **Amelogen Plus** – Ultradent Products, Inc.
- **Belofil** – Shofu Dental Corporation
- **Gradia Direct** – GC America Inc.
- **IPS Empress Direct** – Ivoclar Vivadent, Inc.
- **Nuance** – DenMat
- **Premise** – Kerr Corporation
- **Renamel** – Cosmedent, Inc.
- **Tetric EvoCeram Universal** – Ivoclar Vivadent, Inc.
- **Venus Diamond** – Heraeus Kulzer
- **Venus Pearl** – Heraeus Kulzer
- **Vit-l-escence** – Ultradent Products, Inc.

*These bulk-fill products require a final layer of traditional composite on top.*

Remember to read all manufacturer instructions for specific limitations and indications for all materials.
Pediatric Restoration

Do you like treating kids?  
No → Refer to your pediatric specialist.

Yes →

Is the cavity 2 or less surfaces?  
No → You are probably doing a crown.

Yes → Is it going into pulp?

Yes →

Do you like treating kids?

No → Sounds like a filling.

Yes →

Are you able to achieve good isolation?

No →

Amalgam

Glass Ionomer

Composite

Yes →

Aesthetic Pediatric Crowns

Hu-Friedy Pedo Crowns

NuSmile Pediatric Crowns

Stainless-steel Crowns

NuSmile Pediatric Crowns

Stainless Steel Crowns – 3M ESPE

See previous flow chart for complete listing.

Remember to read all manufacturer instructions for specific limitations and indications for all materials.

continued on page 50
Is it veneers?

Yes:
Discuss material options with your lab.

No:
Are aesthetics an issue?

Yes:
Send to your lab.

No:
Location of crown?

Anterior

Posterior

Are aesthetics an issue?

Yes:

discuss material options with your lab.

No:
Are you using in-house CAD/CAM milling?

Yes:
Location of crown?

Anterior

Posterior

No:
Do you have confidence in new technology?

Yes:
Ceramic Crowns

- Ceramage – Shofu Dental Corporation
- Cercon Zirconia – DENTSPLY Prosthetics
- IPS e.max – Ivoclar Vivadent, Inc.
- Lava Ultimate Resin Nano Ceramic – 3M ESPE
- Lava Frame Zirconia – 3M ESPE
- NobleProcera Zirconia – Nobel Biocare
- Monolithic Zirconia Crown – Contact your lab

Gold

Discuss material options with your lab.

Porcelain Fused to Metal

Discuss material options with your lab.

Are multiple units?

Yes:

No:
Do you prefer traditional cementation?

Yes:

No:
Millable Materials

- artiBlock Temp – Merz Dental GmbH
- CAD-Temp monochrom & CAD-Temp Multi color – VITA
- Celtra CAD – DENTSPLY
- Celtra Duo – DENTSPLY
- CEREC Bloc & CEREC Bloc PC – Sirona
- CEREC Bloc C In – Sirona
e.max – Ivoclar Vivadent
- InCera TC – Sirona
- IPS Empress Cad & Empress Cad Multi – Ivoclar Vivadent
- Lava Ultimate – 3M
- Mark II – Vita
- Paradigm M2100 – 3M
- RealLife – Vita
- SUPRINITY and SUPRINITY FC – Vita
- Trilume and Trilume forte – Vita
- Telio CAD – Ivoclar Vivadent
- Vita Enamic – Vita

Remember to read all manufacturer instructions for specific limitations and indications for all materials.
Cements

What are you delivering?

Temporary Crown | Crown | Inlay/Onlay | Veneer

Do you want it to stay on?

- Yes
- No

Temporary Cements

- CLING2 Resin Optimized Temporary Cement – Clinician’s Choice Dental Products, Inc.
- EXACTA Temp Cement Xtra – EXACTA Dental Direct
- GC Fuji TEMP LT – GC America Inc.
- GC TEMP ADVANTAGE – GC America Inc.
- Hy-Bond Polycarboxylate Temporary Cement – Shofu Dental Corporation
- Hy-Bond Zinc Oxide Eugenol Temporary Cement – Shofu Dental Corporation
- Integrity TempGrip – DENTSPLY Caulk
- IP Temp Cement – Shofu Dental Corporation
- NexTemp – Premier Dental
- SensisTemp – Sultian Healthcare
- TempBond, TempBond Clear, TempBond NE – Kerr Corporation
- TempoCem / TempoCem NE – DENTSPLY
- EXACTA Temp Cement Xtra – EXACTA Dental Direct
- GC Fuji TEMP LT – GC America Inc.
- GC TEMP ADVANTAGE – GC America Inc.
- Hy-Bond Polycarboxylate Temporary Cement – Shofu Dental Corporation
- Hy-Bond Zinc Oxide Eugenol Temporary Cement – Shofu Dental Corporation
- Integrity TempGrip – DENTSPLY Caulk
- IP Temp Cement – Shofu Dental Corporation
- NexTemp – Premier Dental
- SensisTemp – Sultian Healthcare
- TempBond, TempBond Clear, TempBond NE – Kerr Corporation
- TempoCem / TempoCem NE – DENTSPLY

Metal or PFM

- Yes
- No

Zirconia

- Yes
- No

Lithium Disilicate, Obsidion or other ceram

Are you looking for maximum bond?

- Yes
- No

Permanent Cements

- Anchor Core Build Up/Luting Cement – Apex Dental Materials, Inc.
- BeautiCem SA – Shofu Dental Corporation
- C&B CEMENT – BISCO, Inc.
- Ceram Crowns & Bridge – Dux Dental Inc.
- GC FujiCEM & GC Fuji PLUS – GC America Inc.
- GC FujiCEM 2 – GC America Inc.
- GlasioSuper Cement CX-Plus Capsules – Shofu Dental Corporation
- Infinity – Dental Holdings LLC
- Maxcem Elite – Kerr
- Monocem Self-Adhesive Resin Cement – Shofu Dental Corporation
- Multilink Automix – Ivoclar Vivadent, Inc.
- Nexus RMG – Kerr
- Nexus Nexus Third Generation – Kerr Corporation
- PANAVIA F2.0 – Kuraray America, Inc.
- RelyX Luting Plus – 3M ESPE
- ResiCem Universal Resin Cement – Shofu Dental Corporation

Veneer Cements

- BeautiCem SA – Shofu Dental Corporation
- eCIMENT – BISCO, Inc.
- Max veneer Cement – Pentron
- Nexus Nexus Third Generation – Kerr
- RelyX Veneer Cement – 3M ESPE
- ResiCem Universal Resin Cement – Shofu Dental Corporation
- Variolink Veneer – Ivoclar Vivadent

Resin Cements*

- Anchor Core Build Up/Luting Cement – Apex Dental Materials, Inc.
- CLEARFIL ESTHETIC CEMENT EX – Kuraray America, Inc.
- DUD-UNK – BISCO, Inc.
- eCIMENT – BISCO, Inc.
- Infinity – Dental Holdings LLC
- Multilink Automix – Ivoclar Vivadent, Inc.
- RelyX Ultimate Adhesive Resin Cement – 3M ESPE
- RelyX Unicem 2 Self-Adhesive Resin Cement – 3M ESPE
- Variolink K & Variolink Veneer – Ivoclar Vivadent

* In most cases, the use of a bonding agent is recommended.

Remember to read all manufacturer instructions for specific limitations and indications for all materials.