Indirect Restorations: Lab Created

- Often requiring more than one appointment
- Also called castings
- Gold alloy or ceramic/porcelain/zirconium
  - Metallic: cemented to tooth
  - Porcelain: can be cemented or bonded
- Types: Inlay, Onlay, ¾ crown, Crown, Prosthetics
When is it recommended?

- When a tooth has a large restoration, fracture lines or a large amount of decay
- Supports the tooth structure
- Usually last longer than direct fillings
- Dentist recommends the procedure
- Patient may have a choice in material
How is it made?

- Tooth is prepared by the dentist with a handpiece and burs
- Impression is made
- Lab technicians create the restoration
  - “Cast” the metallic restoration
- Patient returns to have restoration placed
Inlays (I)

- Most conservative cast restoration
- Can be ceramic or gold alloy
- Restoration covers occlusal and/or proximal(s)
  - DOES NOT COVER CUSP TIPS
- Examples of naming an Inlay
  - MOI, DOI, MODI
Castings: Onlay (ON)

- Cast material that extends over cusp tips along with L or B surfaces
  - MOB On

- ¾ Crown: extends B and L
  - In between onlay and a crown
  - More conservative than a crown
  - Does not extend to CEJ
Inlay, Onlay
Recognizing Inlay/Onlays Radiographically

Metallic Onlay vs Amalgam
Number #4 is

1. Gold inlay
2. Porcelain inlay
3. Gold onlay
4. Gold ¾ crown
Castings: Crowns

- **Complete Veneer Crown (CVC)**
  - Surrounds entire tooth
  - Only one material: often gold alloy

- **Metal Ceramic Crown (MCC)**
  - Composed of 2 materials: metal and ceramic (porcelain)
  - Ceramic covers all or esthetics parts of tooth

- **Stainless Steel Crowns (SSC)**
  - Often preformed
  - Typically on pediatric patients
Crowns
Endodontics
Implants
What restorative work has #30 had done?

1. RCT, crown
2. RCT, amalgam
3. RCT only
4. Implant
Bridges (Fixed Partial Denture)
What is this restoration?

1. MCC
2. CVC
3. Ceramic onlay
4. Inlay
Charting Cast Restorations

- Metallic portion of a cast restoration
  - Outlined in blue with diagonal blue lines through the crown portion of the tooth

- Tooth colored portion of a cast restoration
  - Only outline any porcelain areas of the restoration (no diagonal lines)
Veneers and All Ceramic Crowns

- No metal substructure
- Esthetics
  - Translucent
- Veneers: thin, only on facials
- Ceramic/zirconium crown
  - Covers whole tooth
  - Many different names
- When to make this choice??
Digital Indirect Restorations: Cerec

- In office
- One visit “same day”
- Computer “impression”
  - Scanned into software
  - Manipulated
  - Milled by a machine
    - No lab involved
- Block of ceramic
  - No metal
  - [http://www.youtube.com/watch?v=l13iu363eEl](http://www.youtube.com/watch?v=l13iu363eEl)
  - [http://www.youtube.com/watch?v=lohEewG_qXU](http://www.youtube.com/watch?v=lohEewG_qXU)
Crowns Radiographic Appearance

- CVC or MCC
- All Ceramic
What type of restoration is on #19?

1. Onlay
2. Amalgam
3. MCC
4. ACC
Prosthetics: Fixed Partial Denture (FPD)

- Known commonly as a “bridge”
- Prepared with crown or onlays on each end “abutments” which anchor the bridge
- False teeth: “pontics” fill in the spaces
- Number of units = how many teeth are involved
FPD Radiographic Appearance
Which are the pontics?

1. 11-15
2. 12, 13
3. 12, 14
4. 12-14
Charting Prosthetics

**FPD: BLUE**

- FPD: determine which teeth are part of the FPD
  - Put a X over roots of the pontic teeth
  - Color the abutment and pontic teeth using the same method as with crowns
  - Draw a horizontal line showing attachment at each abutment next to the crown views
Prosthetics: Removable Partial Denture (RPD)

- Replace 1 or several teeth
- Metallic, acrylic or both
- Teeth: acrylic or porcelain
- Clasps for retention and stability
- Take out to clean and at night
- What do you do during a dental visit?
Complete Denture

- Replaces all teeth in an arch
  - Acrylic with metal substructure
  - Porcelain or acrylic teeth
- May involve retention or be “permanent”
  - Overdenture
  - Hybrid
- Obturator
Charting Prosthetics

RPD and Denture: BLUE

- **RPD:** Determine which teeth are replaced
  - X out the missing roots in blue
  - Draw a horizontal line along the occlusals
    - Draw connecting lines to each tooth replaced by the RPD
  - Outline each tooth wherever porcelain is visible
  - Draw diagonal line across wherever metal is visible

- **Denture**
  - Draw a large X through the entire arch
  - Draw a blue horizontal line over the occlusal views of the arch
  - Write denture
Prosthetics: Dental Implants

- Artificial root(s) placed surgically
  - Titanium
  - Single tooth or several at once
  - Can be many different shapes and sizes
- Crown placed on abutment of the implant
- NO METAL INSTRUMENTS OR Non-Implant ULTRASONIC TIPS ARE USED ON IMPLANTS!!!!!!!
Reasons for Implants

- Congenitally missing tooth/teeth
- Tooth lost to trauma or disease
- Alternative to RCT and crown
Implants: Radiographically and Clinically
Charting Prosthetics
Implants

- Draw (like a screw) implant body over the root
  - Write “implant” next to tooth
  - Use same method as crown charting to chart implant crown
  - If implant is part of a larger prosthesis (FPD, RPD, denture): draw in accordingly
How many implants were placed?

1. 5
2. 7
3. 9
4. 11
Endodontics: Treating the Pulp

- **Endo**: treating a tooth internally
  - Root canal therapy (RCT)
  - Gutta Percha
    - Filling material for pulp canals
  - Post
    - Metal or fiber post placed within a prepared hole in the root
- Core / Build-up / RUC
  - For retention of crown
  - Core extends occlusally
- Apicoectomy
Recognizing Endodontic Procedures Radiographically

- Gutta Purcha, Post and Core
- #8 apicoectomy
- #14 gutta percha
Charting Endodontics: BLUE

- Root canal therapy: thin blue vertical line within each root
- Post: thick, blue line halfway to the apex down the middle of the root
  - Covering the RCT line
  - Denote appropriate root if multi-rooted
- Apicoectomy: small, solid blue mark near apex
Which tooth may have recurrent decay?

1. #12
2. #13
3. #14
4. #19
Charting Areas of Concern

- "BUFF SHEET": worksheet to write suspicions and obvious problems
  - Dr. signs at D & T exam
- Chart after confirming with Doctor: RED
  - Caries: shade in the area of decay
  - Teeth that need extracted: X out in red
  - Defective restoration: red arrow
    - Overhang: OH
  - Abrasion: circle the area, write “abras”
  - Attrition: circle the area and write “attrit”
  - Other defects: use an arrow and comment
What is on #3?

1. Gold inlay
2. CVC
3. MCC
4. ¾ crown
Where has decay been noted?

1. 30 B, 29 D
2. 30 L, 29 D
3. 30 B, 29 M
4. 30 L, 29 M
Let’s Chart #2