

# *Direct Resin Composite Veneers*

*REST 717  
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# *Objectives*

- Review the advantages and disadvantages of RC veneers
- Be able to determine when a tooth needs to be prepared for RC veneers



# *Objectives*

- Review tooth shades: opacities, translucencies, intensities, ...
- Review how to select tooth color shade
- Review composite layering technique
- Learn to place RC veneers



# *Advantages*

- Composite resins can be used in direct procedures to successfully restore function and esthetics

Christensen (1985) . Dent Clin North Am, 29(2)

- Preparation for direct veneers is often conservative, and minimal - if any!

Peyton (2002). PPAD, 14(3)

- Composites are often less aggressive on opposing teeth than porcelain

Peyton (2002). PPAD, 14(3)





# *Advantages*

- It usually takes a single appointment
- Reversible and easy to repair  
Crittensen (1985). Dent Clin North Am, 29(2).
- Natural looking restorations  
Fahl (1998). Oral Health, 88.
- More affordable



# *Disadvantage*

- RC veneers do not maintain their appearance as well as porcelain veneers over time



# *Resin Composite Veneers*

- The percentage of practitioners providing direct (“free-hand”) resin composite veneers has declined over the years with a corresponding increase with the use of porcelain veneer restorations

(Peumans M et al. J Dent 2000)



# *Tooth Preparation*





# *Tooth Preparation*

- Depends on tooth position and coloration



# *Tooth Preparation*



# *Resin Composite Shades*





# *Resin Composite Veneers*

- RC veneers can be produced by :
  - using single opacity shades
  - layering various shades and opacities





# *Resin Composite Veneers*

- The decision to use one shade or various shades depends on:
  - adjacent teeth
  - desired results
  - patient expectations



# *Resin Composite Veneers*



# *Resin Composite Veneers*



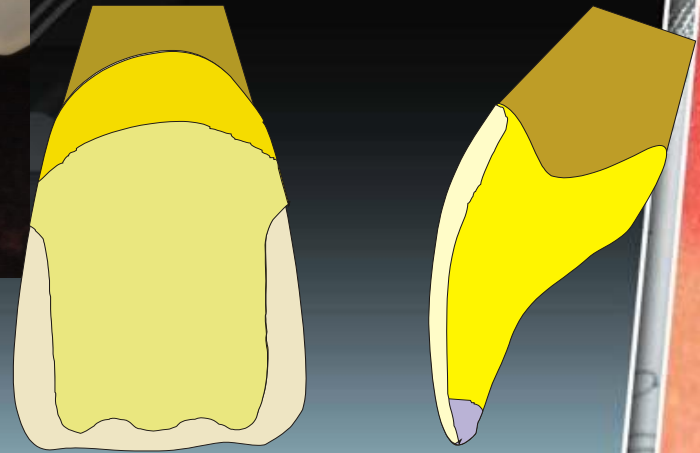


# *Resin Composite Veneers*





# *Tooth Layers*



HIGH OPACITY



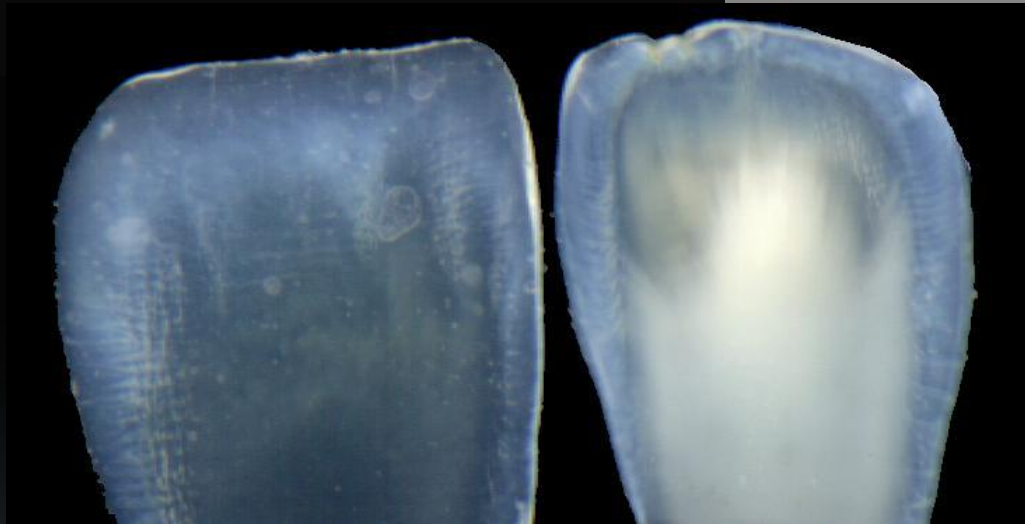
LOW OPACITY



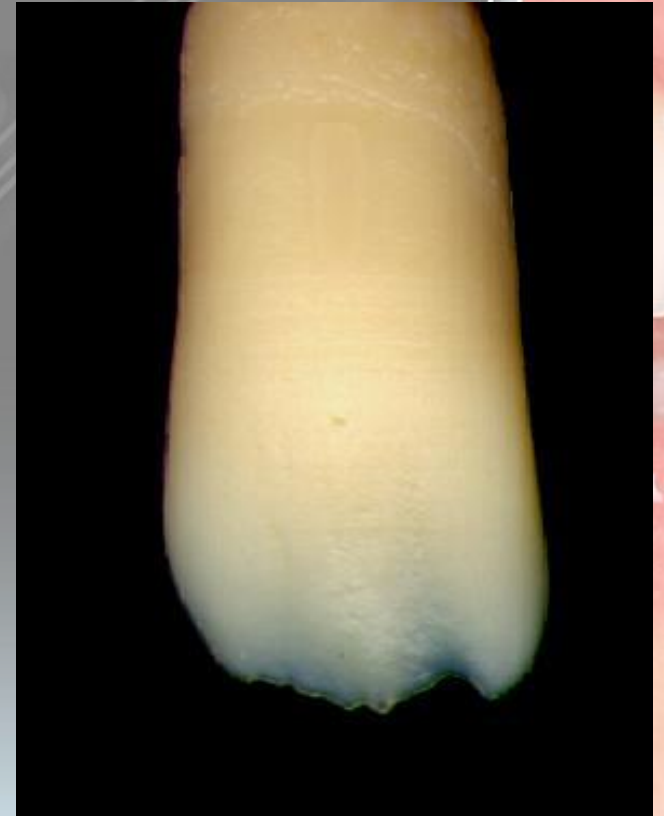
TRANSLUCENT



# *Tooth Opacities*



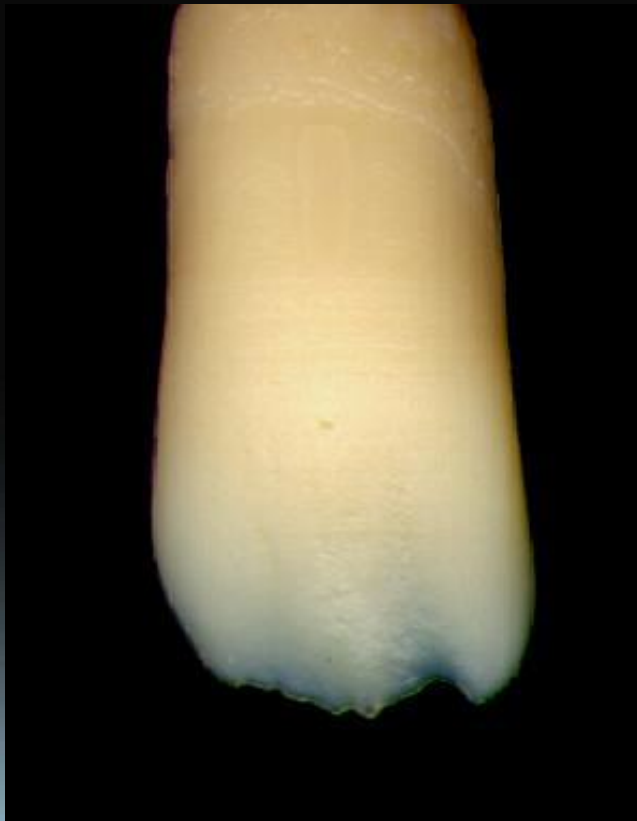
ENAMEL (TRANSLUCENT)



DENTIN (OPAQUE)

**Dr. Marcos Vargas**

# *Tooth Opacities*

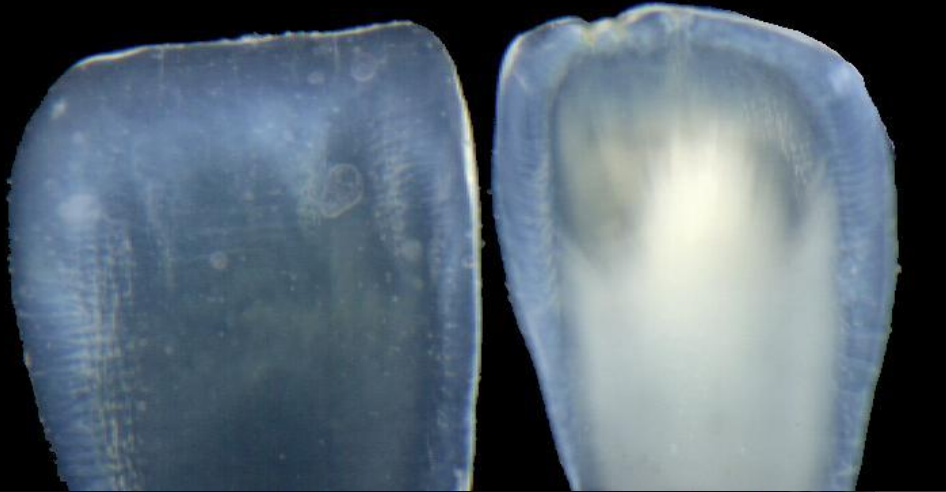


Opacity is the ability of a material to block out light

**Dr. Marcos Vargas**



# *Tooth Opacities*



Translucency is the ability of a material to allow light to pass through it

**Dr. Marcos Vargas**





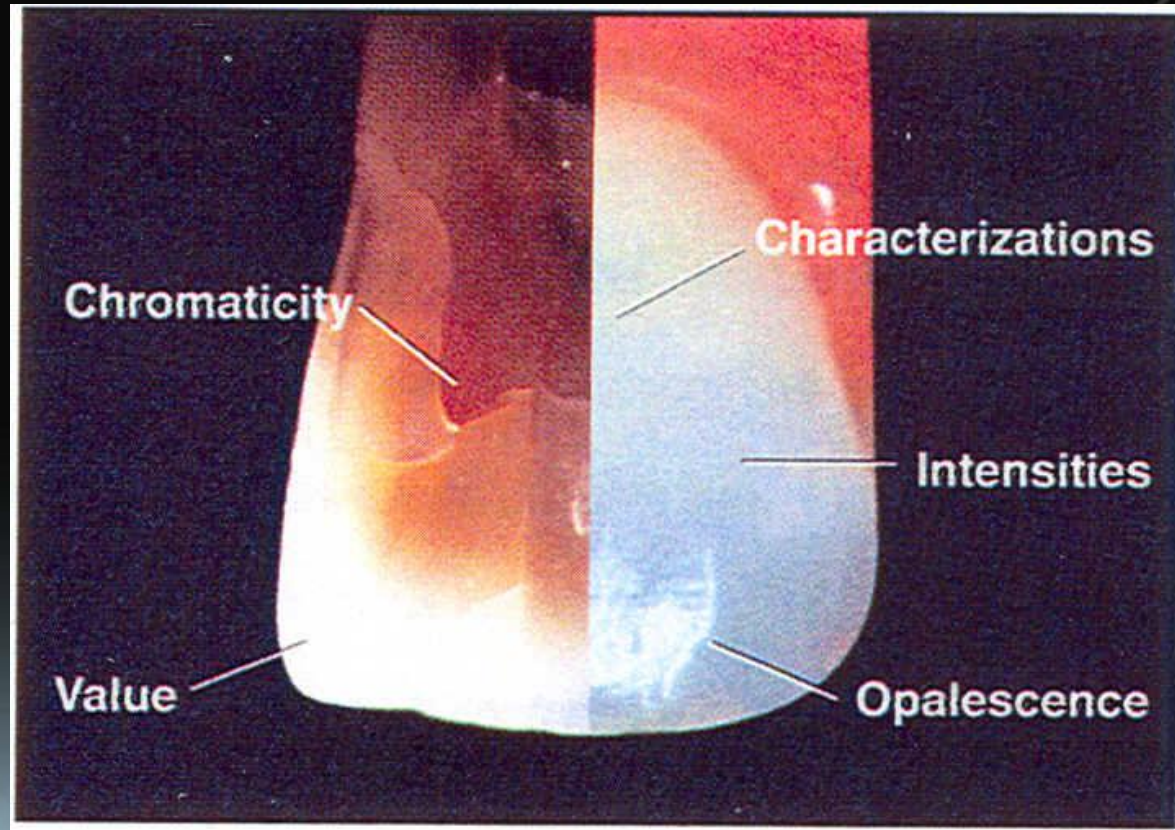
# *Three Dimensions of Color*

- HUE: actual color of object
- VALUE: is the lightness- brightness of the color (hue). The higher the value, the higher is the lightness. It is the luminosity of the enamel
- CHROMA: saturation of pigment, intensity of the color (hue)

Munsell system, 1898



# *Inside the Tooth*



Vanini, 2001







# *Other Dimensions of Color*

## ***DETERMINATION AND COMMUNICATION OF COLOR USING THE FIVE COLOR DIMENSIONS OF TEETH***

Lorenzo Vanini, MD, Francesco M. Mangani, MD





# *Shade Selection*



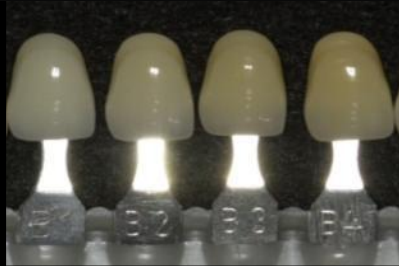
# *Shade Selection*



- The middle site represents tooth color best
- The incisal and cervical sites appear to be more affected by their surroundings

*Goodkind, J. of Pros. Dent., 1987*







# *Color Matching*

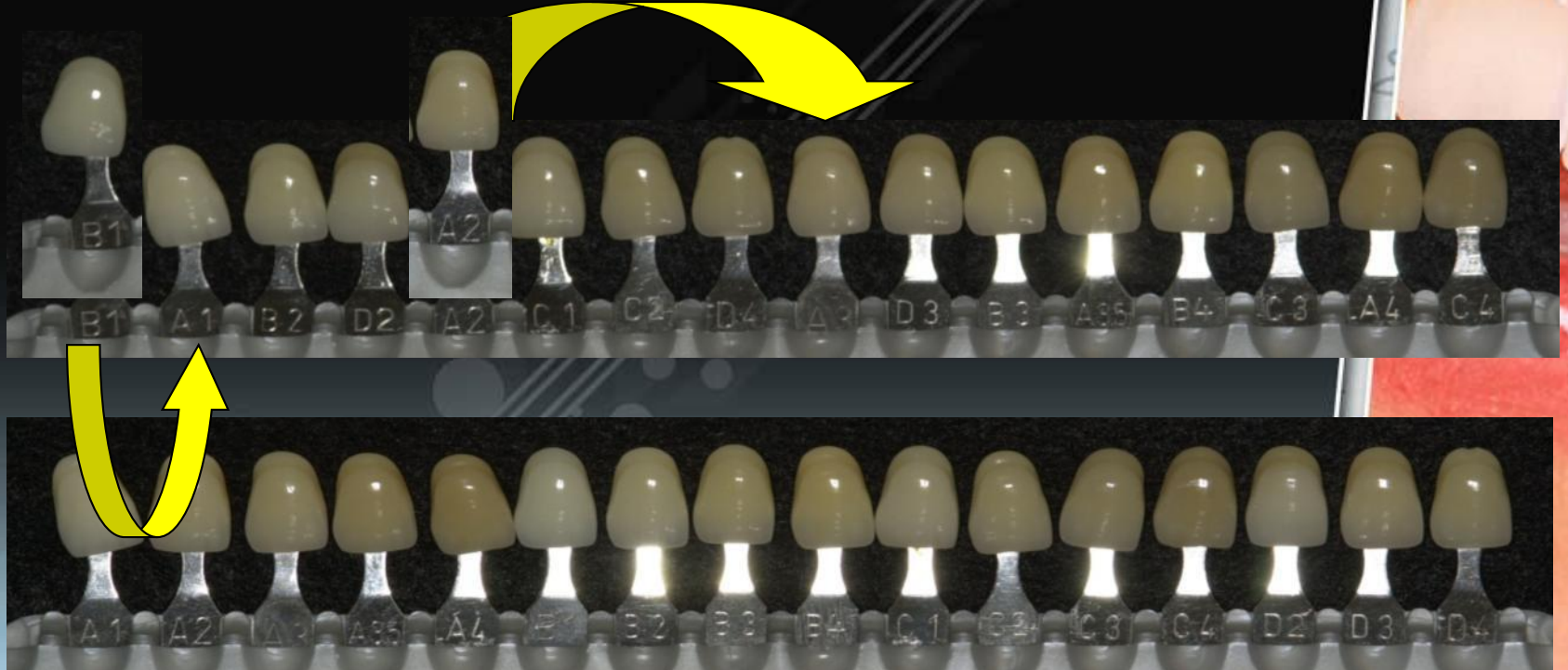
- Classical Vita shade guide
  1. Select enamel shade
  2. Select dentin shade: one shade darker than enamel shade in the A range





# *Color Matching*

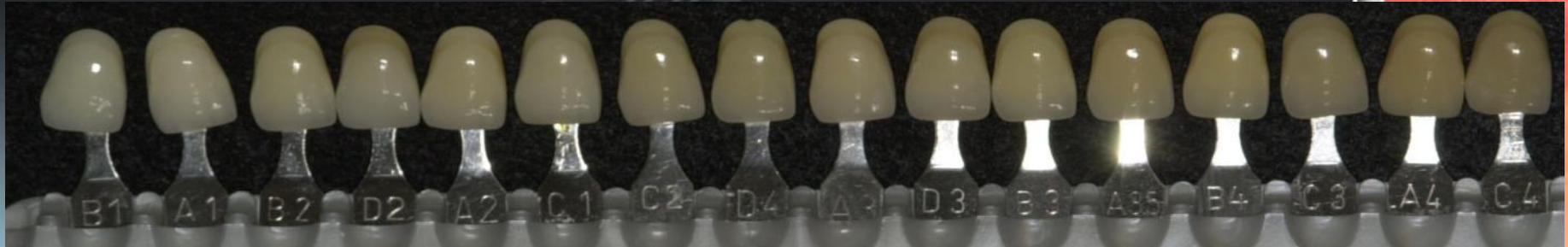
1. Use the shade guide to select the shade



# *Color Matching*

Classical Vita shade guide (value order)

**B1 A1 B2 D2 A2 C1 C2 D4 A3 D3 B3 A3.5 B4 C3 A4 C4**



# *Color Matching*

Shade guide: enamel and dentin shades

<i><b>ENAMEL/BODY</b></i>	<i><b>DENTIN</b></i>
<i><b>B +, WE</b></i>	<i><b>B1, A1</b></i>
<i><b>B1</b></i>	<i><b>A1</b></i>
<i><b>A1, B2, D2</b></i>	<i><b>A2</b></i>
<i><b>A2, C1, C2, D4</b></i>	<i><b>A3</b></i>
<i><b>D3, B3, A3.5, B4, C3, A4, C4</b></i>	<i><b>A4</b></i>





# *Color Matching*

2. Place a layer of material of the chosen shade, simulating size and depth of the restoration
3. Polymerize the material
4. Wet the material with saliva or water
5. Observe the material with the operator light off to verify that the shade is correct





# *Tooth Layers*

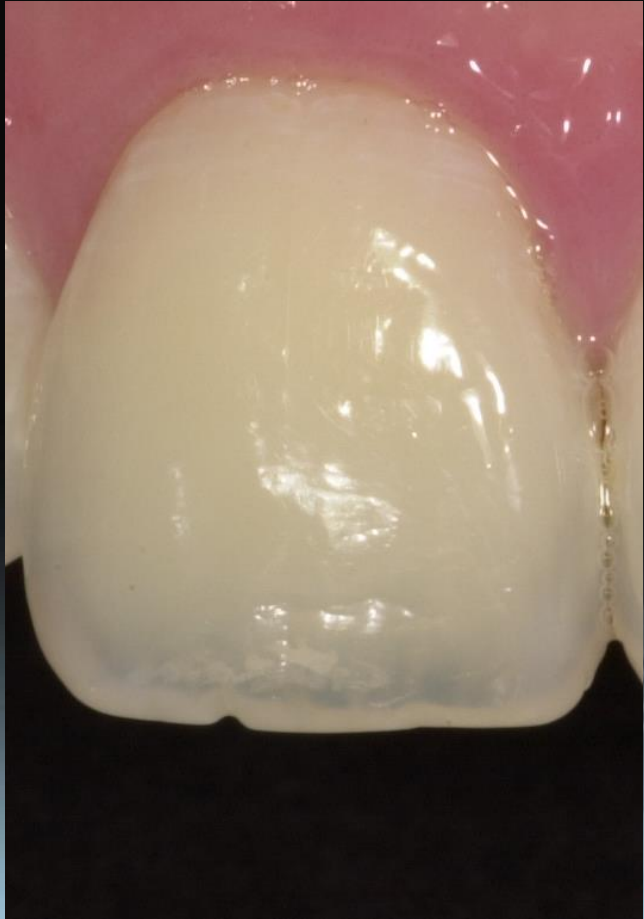
Opaque or dentin RC ←

Regular or enamel RC ←

Translucent RC ←



# *Shade Selection*



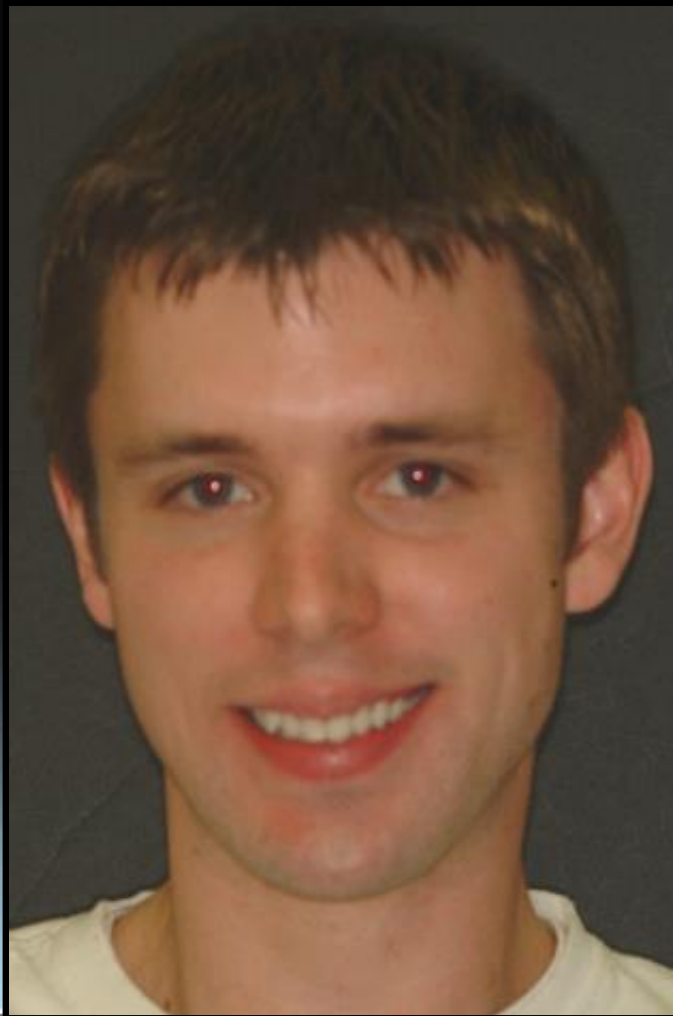
- White pigments
- Mamelons
- Incisal translucency
- Halo



# *RC Veneer Technique*



# *Resin Composite Veneers*





# *Resin Composite Veneers*



# *Resin Composite Veneers*





# *Resin Composite Veneers*





# *Resin Composite Veneers*



# *Hand Instruments*



# *Resin Composite Veneers*





# *Resin Composite Veneers*



# *Resin Composite Veneers*



# *Resin Composite Veneers*





# *RC Veneers*





# *Conclusions*

- Resin composite veneers can be more conservative and affordable than porcelain veneers
- Tooth preparation is dependent upon tooth position and coloration
- The use of single shade or polychromatic shade is dependent upon the tooth





# *Conclusions*

- Shade selection and planning are paramount for the success of the restoration
- Know your instruments
- Know your material
- Know DENTAL ANATOMY



# Questions???

