Minimally Invasive Biomimetic Dentistry

(MIBD)

A Philosophy of Practicing Dentistry
MIBD Spectrum

• Operative/Restorative Dentistry
• Preventive/Early Intervention Dentistry
• Endodontics
• Periodontics
• Implant Dentistry
My Bias is towards Composites

• All restorations will fail given enough time use and abuse.

• I would rather see my restorations wear and fail than to see natural tooth structure destroyed.

• With technology advancing as fast as it is, we will have better materials and techniques available when these restorations do fail.

• Leave as much natural tooth structure as you can.
NIH Study on Composite Survival

• 5.7 Years!!!!!!!!!!
• “However, longevity and survival studies show that dental resin composites have an average replacement time of 5.7 years and such failures are mainly due to secondary decay and fracture of the restoration”
Dental Disease is a Biofilm Disease

- Caries
- Endodontics
- Periodontics
Ozone therapy is a new tool

- It’s kinder and gentler.
- It doesn’t make noise.
- It doesn’t hurt.
- It doesn’t make the patient uncomfortable.
- It’s multipurpose and can be used on every patient, every day.
Creating success with Direct/Indirect Restorations

- Diagnose early and treat definitively
- Minimal invasive preparations and protocols
- Magnification
- Air Abrade or Lase any bonded surface
- Matrix for Isolation, form and function
- Clean Dry delivery air (oiless comp., Air dryers)
- Use well researched Restorative systems
- Let the chemistry set do its work
- Air only drying syringe or air dryer
- Strong curing light that is continually tested and pour the energy on
OLD SCHOOL FISSURE MODEL?

Caries begins with decalcification and cavitation in the fissure walls.

Diagnosed with a probe.
FISSURE ANATOMY

“REALITY”

Organic plug (Biofilm)

Decalcified or hypocalcific enamel

Enamel defects in fissure wall

Demineralizing dentin (This area may not be decalcified and a probe won’t stick)

(cavitation in this zone is undetectable by probing)

Hardened outer layer of Enamel (Fluoride)

H+ H+ H+ H+ H+ H+
Texas Institute for Advanced Dental Studies®

Presents

Early Diagnosis/Early Intervention Minimally Invasive Preventive Dentistry™

Our Belize Mission Trips: The Texas Institute for Advanced Dental Studies is one of the oldest hands-on course providers in dentistry. Through the leadership of director J Tim Rainey, D.D.S, TIADS has been the leading pioneer in Minimally Invasive Preventive Dentistry™. Our trips into Belize, which have been focused on Early Diagnosis/Early Intervention MIPD™, will revolutionize operative dentistry. We have now treated over 400 preteen adolescents in Belize, and have examined over 100 on one-year recall.

The results of this peer reviewed technology has been spectacular, with very little decay in previously treated teeth or newly erupted teeth, compared to the standard 50% failure rate of traditional resin based “Sealants”. This hands-on opportunity provides complete immersion in technology under the guidance of an experienced Mentor, an atmosphere that will assure success in implementing this technology when the practitioner returns to the office on Monday morning. You will also leave with the satisfaction of knowing that YOU have provided a service that your patients simply could not have received otherwise, technology that will provide a lifetime of benefits for those whom you have touched.

This course is for dentists, hygienists, and expanded duty assistants, and practices dedicated to stewardship and future health of their patients. This technology can easily eliminate as much as 80% of all future dentistry in the patients who grow up under the care of a practice dedicated to the principles of ED/EI MIPD as taught in this course.

Your practice will also be listed as one of the few offices offering this service, the most effective practice builder available in dentistry today.

In this course you will learn the techniques and applications of Early Diagnosis/Early Intervention Minimally Invasive Preventive Dentistry™

Orange Walk, Belize
November 16—23, 2013

Registration by October 16, 2013 28 credit hours

□ Dentist: $3500.00 (1-unit incl) + □ Hygienist/Staff $1500 Hands on Training Room, board, on-site transportation provided by International Health Outreach™:
Per person: $1500 (Group discounts offered for two or more volunteers)

Name __________________________________________________________
Name __________________________________________________________
Office #: _________________________________  Cell #: _____________________________
Email: ______________________________________________

I would prefer to pay by □Visa □ Mastercard □Check

Credit Card Number ___________________________________________    Expires: ___/____    CV: ______

2 Easy Ways to Register:

1. Email us at:
   register@tiads.com
2. Complete and fax this form to:
   361-526-4697
Fiber Reinforcement for a Predictable Failure Modality

Ribbond Reinforcement
Bioactive Restoratives

- Glass Ionomers
- Resin Modified Glass Ionomers
- Bioactive fillers in Composites (Beautiful Shofu)
- New Category of composite with Bioactivity, Biomimetics and a new resin matrix.
Single Appointment
Indirect Overview

- Polyglass/Ceromer Lab systems
- CAD/CAM
- Composites-Direct systems adapted to indirect technique.
- Prefabricated Resin Crown shells DC2 and Natural 1
Advantages

- Polymerization shrinkage occurs outside the mouth
- Saves precious tooth structure
- Patient travels to office only once
- Anesthetic only given once
- No provisionalization
- Direct control of shade
- Ability to add contact or contour if needed
- Marketing advantage
- Cost Containment
- Reinvigorates staff
- Creative Problem solving abilities
The interface between two materials is generally the weak link and a source for potential failure.
Systems Engineering

The law of \( n(n-1) \)
Where \( n = \) # of Materials

Relates to the number of problems that can ensue or the areas of potential failures.
Structural Components

Crown
Cement/Bond
Tooth

\[ n(n-1) = \text{Areas of pot. failure} \]
\[ 3(3-1) = 6 \]
\[ N = \text{the Number of materials} \]
CAD/CAM

Cerec 3D

E4D
Making an Impact

Charles Blair DDS, Mason Blair
November 2000 Dental Economics
## Cost Effectiveness of Cerec

| 1 Cerec “profit” from cutting lab | $22,800 | $54,000 |
| 2 Operative to Cerec conversion   | $ 4,584 | $ 4,584 |
| 3 Broken appointment elimination | $ 1,250 | $ 1,250 |
| 4 Op set-up/OSHA elimination      | $12,000 | $12,000 |
| 5 Front desk admin. cost elim.    | $ 4,800 | $ 4,800 |
| 6 Mktg bonus (extra Cerec bus.)   | $14,400 | $14,400 |
| 7 Higher fee profile (3%)         | $13,500 | $13,500 |
| 8 Elim. of $20K managed care with | $ 4,000 | $ 4,000 |
| a 20% decrease in profits        | _______ | _______ |

$77,334    $108,534
**Cerec 3D**

- **Cerec cost** $116,000
- **Investment** $116,000

**Indirect Composite**

- **composite syst** $2,000
  - Laser $12,000
  - 2 dig cam $6,000
  - Diagdents $6,000
  - Dig Xray $15,000
  - 5 computer $15,000
  - 2 AA Systs $7,000
  - Electric HP $12,000
  - Surg Scope $15,000
- **Investment** $90,000
  + Loaded Mid sized Car
1. Control of Contour, Color  Contacts

2. Takes any concern about Polymerization shrinkage out of the equation.

3. Removes lips, cheeks, tongue, spit and patient movement out of the equation.

4. In complex restorations when you are adding in a contact or reaching for another tooth, you don’t have to develop a complex strategy to matrix and create the added bulk.
CDT 2013 Codes

- Inlays 2650, 2651, 2652
- Onlays 2662, 2663, 2664
- Crown 2710, 2932
- 3/4 Crown 2712

- Resin based inlay, onlay, crowns **must utilize indirect technique**
- Resin refers to any resin based composite, incl. fiber or ceramic reinforced polymer compounds
Expanded Uses of VPS Die Materials

Unique problem solving opportunities
Problem solving with resin crowns

Conservative Resin Crowns for situational dentistry

Natural I and DC2
Access to care issues

• Elderly Patients with Quality of life issues
• Stainless Steel Crown situations
• Cancer Patients with Questionable Prognosis
• Fixed income
• Low Income
• Active caries/Methamphetamines/Drugs
• Transitional situations
• Progressive loading Implants
• Long Term Provisionals
Preformed Retrofitted Crown Shell System

Natural I

Can be used for Direct or Indirect applications
Economy Crown Key Components

- Dual ArchTray (Clinicians Choice)(Premier)(Triodent)
- Hydrocolloid/Alginate (Dux Dental)(Cavex)
- Die Maker Articulator (Premier)
- Mach Slo or Mach II VPS die material (Parkell)
- AlphaBite (Danville) Blu Mousse (Parkell)
- Natural One/DC2 crown shells (Direct Crown)
- Composive (Crown surface activator) (Candulor)
- Air Abrasion unit (Danville Prepstart H2O or MicroEtcher)
- Flowable composite (Beautifil-Flow Plus FOO Shofu)
- Shaping and polishing supplies (Various)
Natural I

- Heat and Pressure Cured Crown shell
- NanoHybrid Composite
- Patented interproximal windows
- 20 Degree cuspal inclines
- 3 sizes for every Posterior tooth
- Neutral enamel shade
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