
THE POSSIBLE EFFECTS OF ORGANOSELENIUM (SELDOX) ON DENTISTRY

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Dentistry

Special Needs

ABOUT THE PRESENTER

- Bachelor's in Chemistry with Minor in Biology from Texas Tech University (1994)
 - Doctor of Dental Surgery 1998 - Baylor College of Dentistry
 - Master's Business Administration with Emphasis on Health Organization Management - Rawls College of Business - Texas Tech University (2007)
 - Beginning Master's of Public Health
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- State Dental Director Texas Department of Aging and Disabilities Services (2010 - 2014)
 - Dental Director Lubbock State Supported Living Center (2006 - 2014)
 - Private Practice Lubbock, Texas - Practice Limited to Special Needs - Includes Hospital Dentistry and Geriatrics (2014 - Present)
 - Member of Texas Oral Hygiene Coalition
 - Member of Special Care Dentistry Association
 - Member American Association of Disability Medicine and Dentistry
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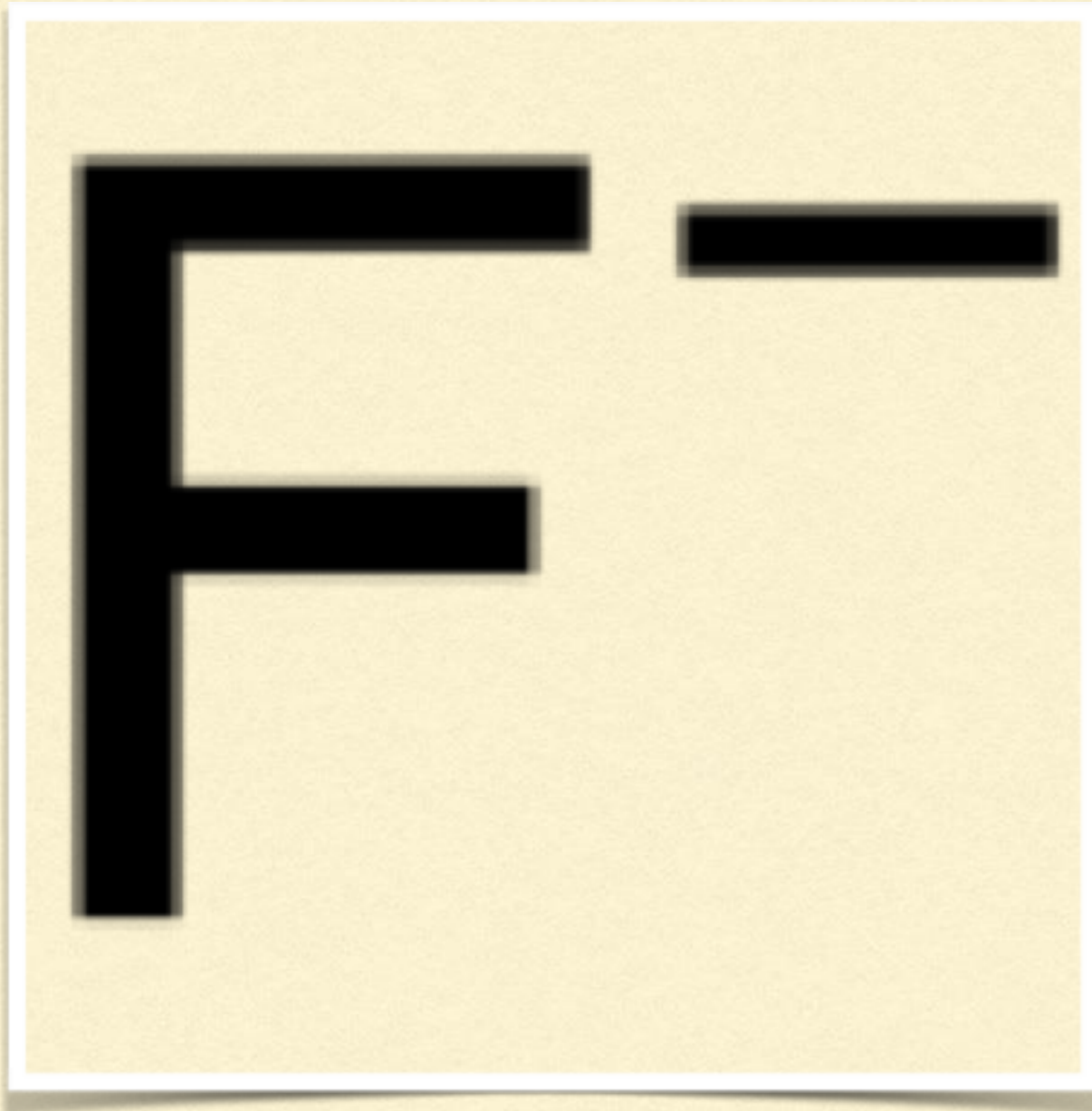
DISCLAIMER

- I am a paid presenter / researcher for Selenbio / Dentshield
 - I am not paid by Kerr / Opti-bond
 - I am not paid Dentsply / Dyract
 - I am not paid by Elevate
 - I use the products that I am discussing in my office daily
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ADVANCES IN CARIES PREVENTION

- Fluoride
 - Dental Sealants
 - Glass Ionomer
 - Compomer
 - Resin reinforced Glass Ionomer
 - Silver Diamine Fluoride
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FLUORIDE



- Is an anion of the chemical Fluorine, which is the #9 element on the Periodic Table
 - Introduced in 1940's to prevent caries
 - Is on the World Health Organization's list of essential medicines
 - Is in water, toothpaste, mouth rinses, etc....
 - Is a vital part of caries prevention
 - There is Scientific evidence that it has decreased caries by over 30%
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DENTAL SEALANTS



- Introduced in 1960's because of an increase of caries on pit and fissure surfaces
 - Helped to decrease pit and fissure caries
 - Provides protection for many years
 - A vital part of early caries prevention
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GLASS IONOMER



- Introduced in 1972
 - Releases fluoride
 - Was originally a sealant material
 - Derivative of Silicate and Polycarboxylate cements
 - Used as an anterior restorative material
 - A key to preventing recurrent caries
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COMPOMER



- Is primarily a composite material with Glass Ionomer mixed into the material
- Introduced in 1988
- Releases Fluoride to help prevent recurrent caries
- Most common for Dyract

RESIN REINFORCED GLASS IONOMER



- Is primarily Glass Ionomer with resin mixed inside to reinforce
- Good for Class V Restorations
- Releases Fluoride to help prevent recurrent caries

SILVER DIAMINE FLUORIDE



- Discovered in the late 1960's to arrest caries
- Used in Europe and Asia since the late 1960's
- FDA approved in
- A key to arresting and preventing caries

**WHAT IS THE NEXT
BIG BREAKTHROUGH
IN THE FIGHT
AGAINST CARRIES?**

ORGANOSELENIUM

- Shown in 2012 at Texas Tech Health Sciences Center (Go Red Raiders!) by Dr. Ted Reid, et al to inhibit the biofilms of bacteria
 - Is categorized as an anti-biofilm agent
 - When covalently bonded to a solid matrix retains its ability to catalyze the formation of superoxide radicals that prevent bacterial colonization of solid surfaces
 - Is non-toxic to other cells and animals in-vitro and in-vivo
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- Was originally used to coat intravascular catheters to prevent secondary infections
 - Shown to prevent colonization of bacteria on solid surfaces especially *Staphylococcus Aureus* as well as *Pseudomonas Aeruginosa*, *Enterococcus species* and *Acinetobacter baumannii*.
 - *Seldox is the brand name*
 - *Is an Anti-microbial*
 - *Marketed as Denteshield by Selenbio Dental for Dental applications*
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CURRENT PRODUCTS AVAILABLE



- Pit and Fissure Sealant
- Used as Sealant
- Surface Sealant
- Can be used as a desensitizer
- Primer
- Used for bonding Orthodontic Brackets / Resin Restorations



FUTURE PRODUCTS

- Primer with bonding agent
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WHERE TO PURCHASE

- Direct from Selenbio / Denteshield
www.Selenbio.com
 - Patterson Dental has recently contracted to become a retailer for Denteshield products
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MY TECHNIQUE

- Etch with traditional etchant
 - Rinse
 - Air Dry
 - Place Denteshield Primer
 - Air Dry
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- Apply bonding agent - Optibond FL - Fluoride releasing bonding agent
 - Light cure
 - Restore with a Fluoride releasing restorative material
 - Dyract (Flowable or Bulk Fill)
 - Light cure
 - Contour
 - High Speed Diamond Burrs
 - Low Speed
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QUESTIONS / COMMENTS

- Special Needs Dentistry
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