

ECHO IDAHO

Oral Health in Primary Care

Supporting Oral Health for Patients with Disabilities and Substance Use Disorders

2/17/25

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Brooke Fukuoka has a financial relationship as a paid speaker with the following organizations: Elevate Oral Care, GC America, Mouthwatch, Armor Dental, and Delta Dental . All financial relationships have been mitigated through peer review.



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Part 1: Supporting Oral Health for Patients with Substance Use Disorders

Paul O'Kane
VP Dental Services
Delta Dental of Idaho

Key Points

- Substance use significantly increases oral disease burden
- Primary care teams play a key role in early detection and prevention
- Focus: practical screening, barrier reduction, and tailored care

Key Oral Health Risks by Substance

- Tobacco/vaping: Periodontitis, tooth loss, oral cancer
- Alcohol: Oral cancer, mucosal irritation, xerostomia
- Illicit & prescription drugs: Rampant caries, bruxism, infection risk

Relative Risk of Oral Disease by Substance

- Tobacco: Periodontitis RR 1.5–3.0; Oral cancer RR \approx 2.6
- Alcohol: Heavy use \rightarrow Oral cancer RR \approx 5.0
- Methamphetamine: Rampant caries prevalence \approx 96% (very high risk)
- Cannabis: Xerostomia prevalence \approx 70%
- Vaping (E-cigarettes): Periodontitis odds \approx 2–5 \times higher vs. non-users; High-caries risk in \sim 79% of vapers (vs \sim 60% non-vapers).
- Opioids (prescription & illicit): Xerostomia prevalence \approx 40–60%; dental caries odds \approx 2–3 \times higher; increased periodontal disease and oral infection risk

Addressing Care Barriers in Primary Care

- Patient-level barriers: stigma, fear of dental care, cost, transportation
- System-level barriers: limited dental access, long wait times, coverage gaps
- Provider barriers: limited oral health training, time constraints

Strategies to Reduce Care Barriers

- Normalize oral health screening during medical visits
- Use nonjudgmental language and trauma-informed approaches
- Leverage care coordinators and community dental referral pathways
- Align oral health discussions with chronic disease management

Tailored Prevention Approaches

- High-fluoride toothpaste or varnish for high-caries-risk patients
- Saliva-preserving strategies for xerostomia
- Diet counseling
- Behavioral health counseling
- Integrate tobacco and substance use education with oral health messaging

Tailored Treatment Considerations

- Manage acute infections promptly to prevent ED utilization
- Coordinate medication choices to minimize xerostomia and bleeding risk
- Refer early for suspicious lesions or rapid disease progression
- Document oral findings to support continuity of care

Clinical Workflow Integration

- Screen: brief substance use and oral symptom questions
- Examine: lips, tongue, floor of mouth during routine exams
- Educate: clear, actionable oral health recommendations
- Refer: warm handoffs to dental providers when possible

Key Takeaways for Primary Care

- Substance use is a major oral health risk factor
- Reducing barriers improves prevention and outcomes
- Tailored, team-based approaches fit well within primary care workflows

References

- Tomar SL, Asma S. Smoking-attributable periodontitis. J Periodontol. 2000.
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- Rees TD et al. Methamphetamine abuse and oral health. JADA. 2007.
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Oral Health in Primary Care

Part 2: Special Care Dentistry for Non-Dentists

Brooke Fukuoka, DMD, DABSCD
Family Health Services Advanced Delivery Dental

Special Care Dentistry for Non-Dentists with focus on cavities...



Brooke MO Fukuoka DMD, DABSCD
(Dentist in Jerome, Idaho)



Financial Disclosures

- Frequent Course Sponsors:
 - Elevate Oral Care, GC America, Mouthwatch, and Armor
- Free/Discounted product has been given (various companies)
- Clinic sponsorship:
 - Delta Dental of Idaho, Rotary Club, Keveren Foundation



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- Laws change, keep updated.
- Nothing in this presentation should be interpreted as legal advice
- I am not familiar with the legalities of practicing medicine.
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Your Adult Patients Who Have Disabilities May Struggle to Find a Dentist.

- Pediatric vs Adult Dentistry
- Special Care Dentistry is Not a Recognized
- Medicaid Issues
- Patients May Fear Coming to the Dentist
- Dentists May Fear Patients Moving
- Predictability



You can help them manage this while they search...

Learning Objectives

- What are Dental Caries
- Understanding Caries Risk
- How Meds Contribute to Caries Risk
- Things YOU Can Use/Do to Help



What are Dental Caries?

- **ADA Library Definition of Dental Caries:** “The caries disease process is biofilm-mediated, sugar-driven, multifactorial, and dynamic in the phasic demineralization and remineralization of dental hard tissues”
- **Active Caries:** when the disease is progressing
- **Arrested Caries:** when the disease has halted



- American Dental Association. Nutrition and oral health. ADA Library. Accessed February 1, 2026. <https://www.ada.org/en/resources/ada-library/oral-health-topics/nutrition-and-oral-health>
- Lawson NC, Robles A. Clinical treatment of deep caries: adopting a minimally invasive approach in managing deep caries lesions will help avoid complications with pulpal involvement. *Decisions in Dentistry*. February 2019. <https://decisionsindentistry.com/article/clinical-treatment-of-deep-caries/>



Dental Diagnosis Codes in ICD10 Examples Caries

ICD 10 Code	Description
K02.3	Arrested Dental Caries
K02.5	Dental caries on pit and fissure surface
K02.51	Dental caries on pit and fissure surface limited to enamel
K02.52	Dental caries on pit and fissure surface penetrating into dentin
K02.53	Dental caries on pit and fissure surface penetrating into pulp
K02.6	Dental caries on Smooth Surface
K02.61	Dental caries on Smooth Surface limited to enamel
K02.62	Dental caries on Smooth Surface penetrating into dentin
K02.63	Dental caries on Smooth Surface penetrating into pulp
K02.7	Dental Root Caries
K02.9	Dental Caries Unspecified

Unless we are working with a hospital or medical service dentists generally don't use these. Some dentists don't even know they exist



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FEBRUARY 2015 [Download Full Issue](#) PDF [1 MB] Figure

The American Dental Association Caries Classification System for Clinical Practice

A report of the American Dental Association Council on Scientific Affairs

Douglas A. Young, DDS, EdD, MBA, MS • Brian B. Nový, DDS • Gregory G. Zeller, DDS, MS • ...
Thomas C. Hart, DDS, PhD • Edmond L. Truelove, DDS, MSD [A](#) [E](#)

American Dental Association Council on Scientific Affairs • [Show all authors](#)

TABLE 2
American Dental Association Caries Classification System.

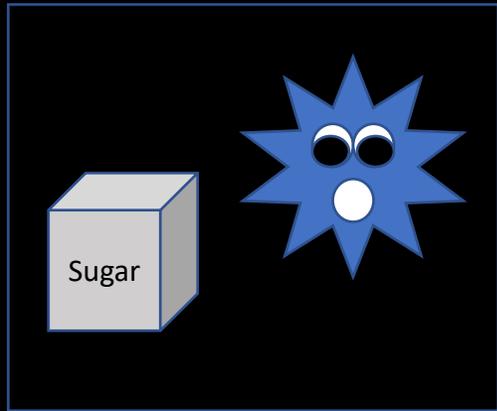
AMERICAN DENTAL ASSOCIATION CARIES CLASSIFICATION SYSTEM							
	Sound	Initial		Moderate	Advanced		
Clinical Presentation	No clinically detectable lesion. Dental hard tissue appears normal in color, translucency, and gloss.	Earliest clinically detectable lesion compatible with mild demineralization. Lesion limited to enamel or to shallow demineralization of cementum/dentin. Mildest forms are detectable only after drying. When established and active, lesions may be white or brown and enamel has lost its normal gloss.		Visible signs of enamel breakdown or signs the dentin is moderately demineralized.	Enamel is fully cavitated and dentin is exposed. Dentin lesion is deeply/ severely demineralized.		
Other Labels	No surface change or adequately restored	Visually noncavitated		Established, early cavitated, shallow cavitation, microcavitation	Spread/disseminated, late cavitated, deep cavitation		
Infected Dentin	None	Unlikely		Possible	Present		
Appearance of Occlusal Surfaces (Pit and Fissure)* †	ICDAS 0 	ICDAS 1 	ICDAS 2 	ICDAS 3 	ICDAS 4 	ICDAS 5 	ICDAS 6 
Accessible Smooth Surfaces, Including Cervical and Root‡							
Radiographic Presentation of the Approximal Surface§	 EO ⁰ or EO ⁰ * No radiolucency	 E1 ¹ or RA1* Radiolucency may extend to the dentinoenamel junction or outer one-third of the dentin. Note: radiographs are not reliable for mild occlusal lesions.	 E2 ² or RA2*	 D1 ¹ or RA3*	 D2 ² or RB4* Radiolucency extends into the middle one-third of the dentin	 D3 ³ or RC5* Radiolucency extends into the inner one-third of the dentin	

* Photographs of extracted teeth illustrate examples of pit-and-fissure caries.
† The ICDAS notation system links the clinical visual appearance of occlusal caries lesions with the histologically determined degree of dentinal penetration using the evidence collated and published by the ICDAS Foundation over the last decade; ICDAS also has a menu of options, including 3 levels of caries lesion classification, radiographic scoring and an integrated, risk-based caries management system ICCMS. (Pitts NB, Ekstrand KR. International Caries Detection and Assessment System [ICDAS] and its International Caries Classification and Management System [ICCMS]: Methods for staging of the caries process and enabling dentists to manage caries. *Community Dent Oral Epidemiol* 2013;41[1]:e41-e52. Pitts NB, Ismail AI, Martignon S, Ekstrand K, Douglas GAV, Longbottom C. ICCMS Guide for Practitioners and Educators. Available at: https://www.icdas.org/uploads/ICCMS-Guide_Full_Guide_US.pdf. Accessed April 13, 2015.)
‡ "Cervical and root" includes any smooth surface lesion above or below the anatomical crown that is accessible through direct visual/tactile examination.
§ Simulated radiographic images.
¶ EO-E2, D1-D3 notation systems.
* EO, RA1-RA3, RB4, and RC3-RC6 ICCMS radiographic scoring system (RC6 = into pulp). (Pitts NB, Ismail AI, Martignon S, Ekstrand K, Douglas GAV, Longbottom C. ICCMS Guide for Practitioners and Educators. Available at: https://www.icdas.org/uploads/ICCMS-Guide_Full_Guide_US.pdf. Accessed April 13, 2015.)

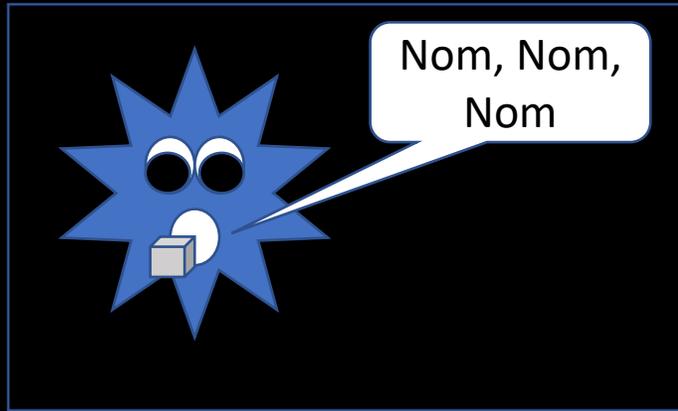
Diagnosis:
Less standardized
than Medicine- Looks
at depth and if active
or arrested. We call it
"classification"



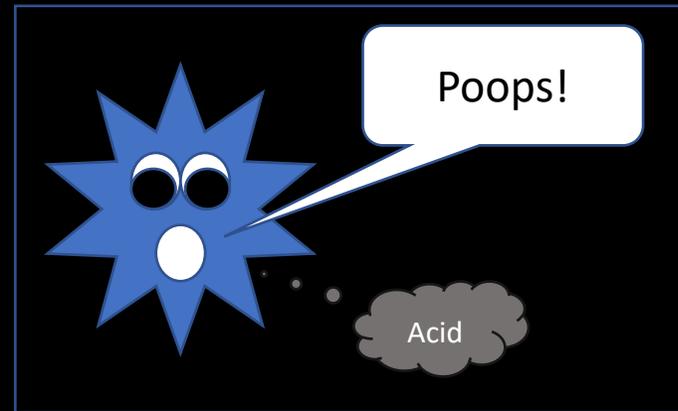
Oversimplified Caries Process



Acid producing bacteria are exposed to sugar



Bacteria consume sugar



Bacteria digest sugar and secrete acid



Mouth becomes acidic



Enamel loses mineral and becomes soft



Small holes form in teeth = cavities



Patient Education: Balancing Risks and Preventatives

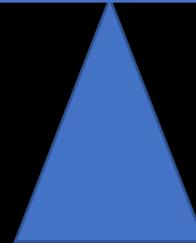
RISK FACTOR Examples

- Bad Bacteria
- Frequently Snacking
- **Dry Mouth**
- **Dry Mouth Inducing Medications**
- **Sugary Medications**
- Acidic Beverages
- Acid Reflux
- Hard to Clean Areas
- Poor Oral Hygiene
- Genetics?
- Medical Conditions

Antipsychotics
Benzodiazepines
Antidepressants
Diuretics
Muscle relaxants
And many more

PREVENTATIVE FACTOR Examples

- Products to kill/inhibit bad bacteria
- Good Bacteria
- Good Diet
- Good Saliva
- Fluoride, Calcium, Phosphate, Nano-Hydroxyapatite
- Reflux Management
- Sealants
- Good Oral Hygiene (Brushing and Flossing)
- Professional Dental Services (sealants)
- Genetics?



You are Busy, Give Them a Link...

Some Useful Links for both Dental Providers and Non-Dental Providers:

FREE Patient Facing Videos from the ADA:

- ADA one-minute video on Cavities: https://youtu.be/PkqMEunuM54?si=-PI6YQKhbp_WC0DT
- ADA two-minute video about fluoride: https://youtu.be/o9UuXmQH1fo?si=vwnjOmDbMoZi_uJ4
- ADA one-minute video how diet effects dental health: https://youtu.be/0Ja0-TIn7VY?si=U6R41Vf6_UTfqbjJ
- ADA one-minute video about plaque: <https://youtu.be/wAB7jWgQn1s?si=AT7yFTkQNNID752Y>
- ADA one-minute video about how sugar free gum: <https://youtu.be/hCKaVJ3Arm8?si=Kd1NqEW0Dz9wHVbX>
- ADA six-minute video Silver Diamine Fluoride: <https://youtu.be/a0HH7GifdM4?si=kiGhDa5dKXbvRacg>

Free Dental CE Courses (anyone can watch) on prevention and on treating people who have disabilities, more catered to healthcare providers, but patients can use too:

- Full Length FREE Courses on oral health and prevention: <https://www.elevateoralcare.com/elevatingcare>
- Full Length FREE Courses on dentistry for people with disabilities: <https://www.dental.upenn.edu/continuing-education/online-classroom/center-for-persons-with-disabilities-presentation-series/>
- My List of other great resources: <https://www.yourspecialsmiles.com/other-good-resources/>
- My Other Speaker Handouts: <https://www.yourspecialsmiles.com/book-dr-brooke/>

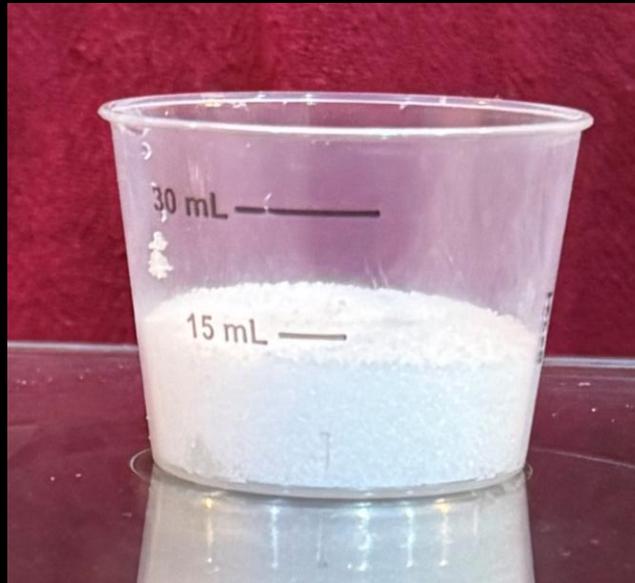


What is in the meds we prescribe?

Nystatin Oral Suspension

(USP is a cherry-mint flavored, ready-to-use suspension)

100,000 units of nystatin in a vehicle containing 50% w/v sucrose. Which means 50g sugar for 100ml



Alternatives:

10mg Clotrimazole Troche (SUGAR FREE)
One in mouth 4x daily 14 days

200gm Fluconazole
Take 2 on day one then one per day 7-14 days



Many liquid meds are “laced” with sugar



“Cough Drops are Hard Candy with a Publicist”

Popular Hard Candy

Nutrition Facts	
About 18 servings per container	
Serving size	3 pieces (13g)
Amount per serving	
Calories	50
% Daily Value*	
Total Fat 0g	0%
Sodium 10mg	0%
Total Carbohydrate 13g	5%
Total Sugars 9g	(3g per piece)
Includes 9g Added Sugars	18%

Popular Cough Drop

NUTRITIONAL VALUE PER DROP	
LEMON MINT	
CALORIES	14 kcal
CARBOHYDRATE	3.4 g
SUGARS	2.6 g
OTHER CARBOHYDRATES	0 g
FATS	0 g
FIBER	0 g
SODIUM	0 g
VITAMIN C	0 mg

*Sugar content not always easy to find if listed as a drug

Drug Facts	
Active ingredient (in each drop)	Purpose
Menthol 1.6 mg	Oral anesthetic
Uses ■ for temporary relief of occasional minor irritation, pain, sore mouth, and sore throat.	
Warnings	
Sore throat warning: if sore throat is severe, persists for more than 2 days, is accompanied or followed by fever, headache, rash, swelling, nausea or vomiting, consult a doctor promptly. These may be serious.	
Stop use and ask a doctor if: ■ sore mouth does not improve in 7 days ■ irritation, pain or redness persists or worsens.	
If pregnant or breast-feeding, ask a health professional before use. Keep out of reach of children.	
Directions	
■ Adults and children 3 years of age and older: 2 drops. ■ allow 1 drop at a time to dissolve slowly in mouth. Repeat as necessary every 2 hours, or as directed by a doctor. ■ Children under 3 years of age: ask a doctor	
Other information ■ store at 68°-77°F (20°-25°C) in a dry place	
■ contains FD&C yellow 5 (tartrazine) as a color additive.	
Inactive ingredients ascorbic acid, citric acid, corn syrup, FD&C yellow 5, flavors, honey, sodium acetate, sodium chloride, soybean oil, sucrose	
Questions? 1-866-583-3677 Ludon.com	



What Can You Do to Help?

1. Learn if meds you RX cause dry mouth:

- Teach patients about increased risk for caries and ways to mitigate.
- Recommend products to help

2. Learn if meds you RX are “laced” with sugar
 - Will a sugar free alternative also work?
 - If not, Teach patients about increased risk for caries and ways to mitigate.
3. Discourage the use of sugar as a reward.
4. Encourage or even Rx Fluoride
5. Learn things you can do in your office to help prevent/arrest caries while they search for a dentist



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Strengthen the Tooth: 5000 ppm Fluoride

My Favorite Rx Option:

Rx: 5000 ppm Fluoride Gel

Disp: one tube

Sig: Brush, Floss and rinse, then apply this gel to your teeth like a lotion nightly.

My Second Favorite Rx Option

Rx: 5000 ppm Fluoride Paste

Disp: one tube

Sig: Floss and rinse, then use this toothpaste to brush your teeth, spit, and do not rinse



Fluoride Strengthens Tooth



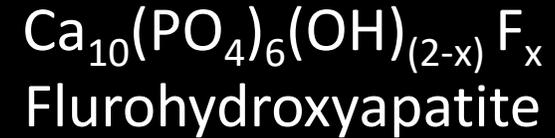
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- Simmer JP, Hardy NC, Chinoy AF, Bartlett JD, Hu JC. How Fluoride Protects Dental Enamel from Demineralization. *J Int Soc Prev Community Dent.* 2020 Apr 2;10(2):134-141. doi: 10.4103/jispcd.jispcd_406_19. PMID: 32670900; PMCID: PMC7339990. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7339990/>



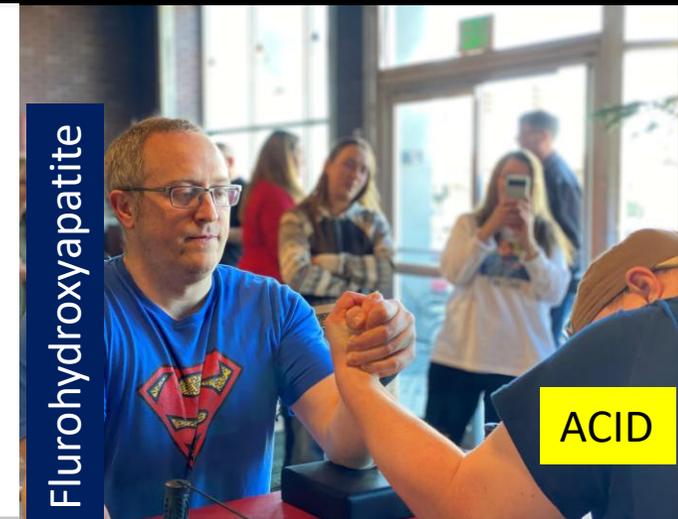
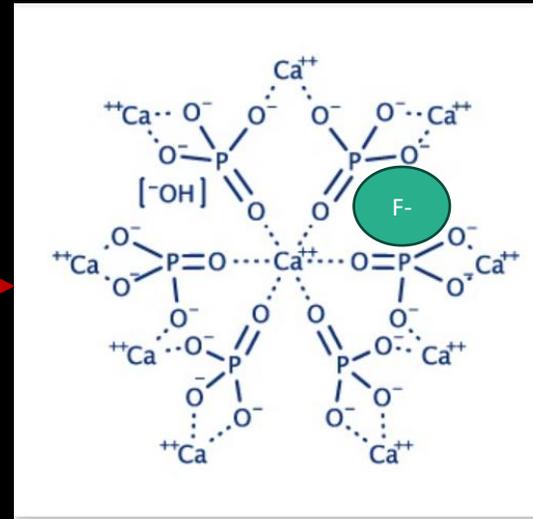
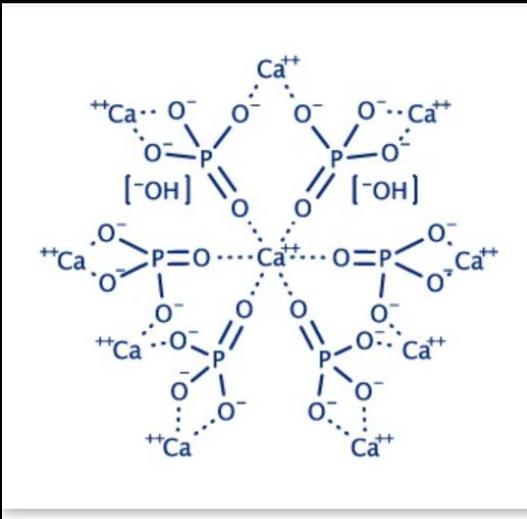
Fluoride: Strengthens Tooth



Critical pH = about 5.5



Critical pH = about 4.5



- Rosenblatt A, Stamford T.C.M., Niederman R. "Silver Diamine Fluoride: A Caries "Silver-Fluoride Bullet". *J Dent Res* 88(2):116-125. 2009 https://www.researchgate.net/publication/24194015_Silver_Diamine_Fluoride_A_Caries_Silver-Fluoride_Bullet/link/00b49525abb72534fb000000/download
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- Hydroxyapatite crystalline structure: <https://www.chromospheres.com/nano-hydroxyapatite-powder/>



Critical pH and pH Scale

Dentin (less inorganic) =6.5

Hydroxyapatite =5.5

Fluorohydroxyapatite =4.5

1	2	3	4	5	6	7	8
---	---	---	---	---	---	---	---

- 1 Stomach Acid
- 2 Lemon Juice
- 3 Coke/Pepsi
- 4 Orange juice / sour beer
- 5 Dr. Pepper
- 6 Tomato juice / ales
- 7 7 up / wheat beer/ lager
- 8 Black Coffee,/blonde ale
- IPAs / Pale ales/ brown ales
- Milk
- Pure water / blood
- Baking soda, sea water

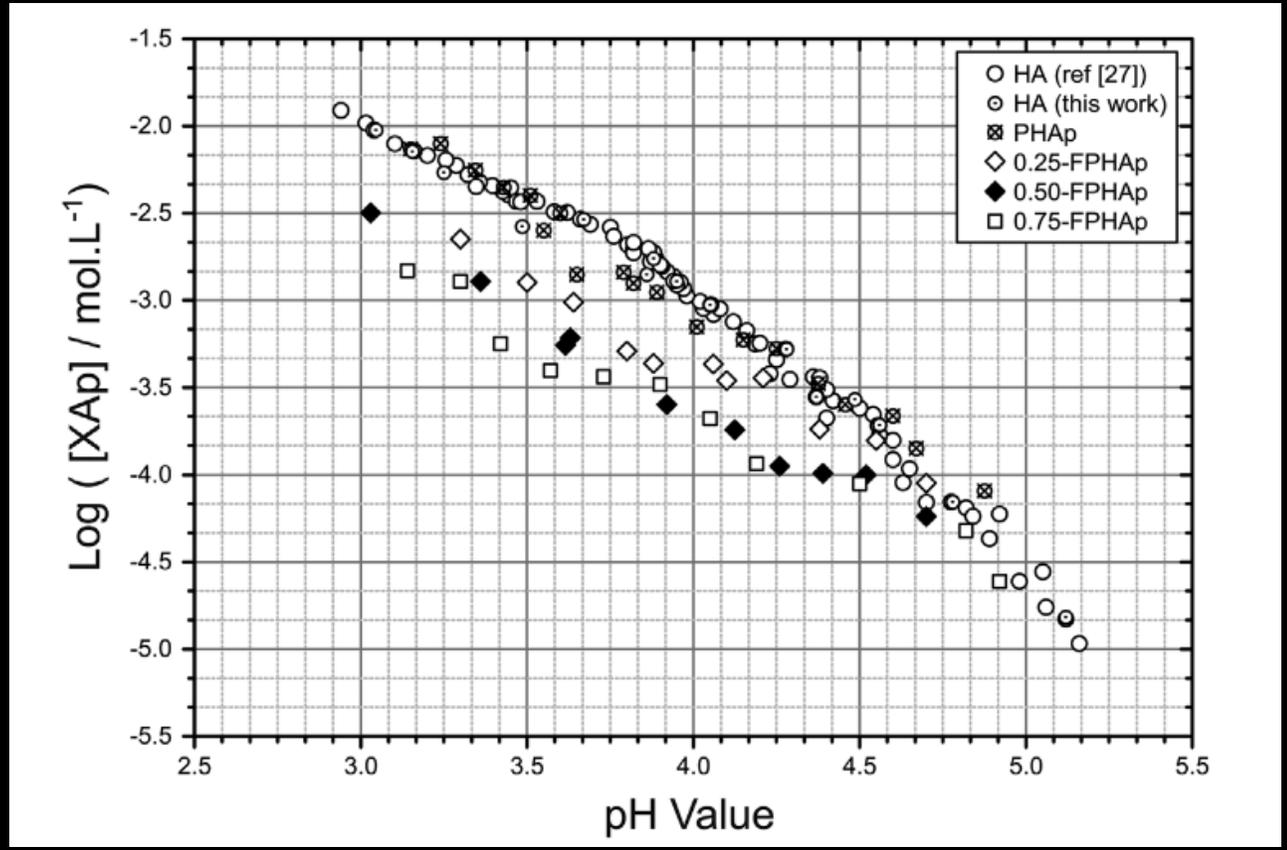


Figure 5. Solubility isotherms of PHAp, 0.25-FPHAp, 0.50-FPHAp, and 0.75-FPHAp 100 mM KCl solution at 37.0 ± 0.1°C by solid titration. Solubility data of stoichiometric HAp were shown for comparison.

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- pH of common liquids: <https://www.epa.gov/goldkingmine/what-ph>
- pH of beers: <https://atlas-scientific.com/blog/ph-of-beer/?srsltid=AfmBOoplogFTWE40uMfE5NShKye51ndCrTptUwvIFSaOIS4pH8Z6NJL> * note porters range 3.5-5.5 so were not included, also note that the beers have ranges and were included only as examples.



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CPT: 0792T application of silver diamine fluoride 38% by a physician or other qualified health care professional



CPT: 99188 application of topical fluoride varnish by a physician or other qualified health care professional

- 2024 CDT Codes
- ADA Guide to Reporting: https://www.ada.org/-/media/project/ada-organization/ada/ada-org/files/publications/cdt/d1355_adaguidetoreportingcariespreventivemedicamentapplication_2021aug.pdf?rev=325c43aa41164c5ea0d62b569a837d5a&hash=687ED0299EF3DFFDA9FD087E225914B7
- AAPD https://www.aapd.org/globalassets/sdf-guidance-for-physicians_aapd_2023.pdf
- AAP: <https://publications.aap.org/aapnews/news/9766/Fluoride-varnish-application-by-pediatricians?autologincheck=redirected>
- AAPC <https://www.aapc.com/codes/cpt-codes/99188>



Povidone Iodine : Decrease Bacteria

- Suggested Protocol:

- Dry – Apply- Protect- Send Some Home
 - Moderate risk: apply the iodine every other month
 - High risk: Apply the iodine monthly

- Contraindications:

- Thyroid problems
- Pregnancy/Breastfeeding
- Allergy or hypersensitivity to iodine



Wait 10
seconds



Want more info on Povidone Iodine?

Antimicrobial Iodine to Complement Fluoride in Routine Oral Health Care



How does povidone-iodine work?

- Saliva activates iodine release via dilution.
- Iodine deactivates DNA, RNA, & proteins via ortho substitution of side chains.
- Iodine differentially kills cariogenic bacteria, inhibits glucosyltransferase, and suppresses *S. mutans* for ~6 months.

Differential *S. mutans* kill

Strain	Antimicrobial	Assays	Concentration	Minimum Inhibitory Concentration (MIC)
S. mutans ATCC 25181	Povidone-Iodine	Minimum Inhibitory Concentration (MIC)	0.06	0.06
		Minimum Inhibitory Concentration (MIC)	0.06	0.06
S. mutans M-202	Povidone-Iodine	Minimum Inhibitory Concentration (MIC)	0.06	0.06
		Minimum Inhibitory Concentration (MIC)	0.06	0.06

Tanzer et al, *Antimicrob Ag Chemo* 1977

Activation via dilution

Berkelman et al., *J Clin Microbiol* 1982
Rackur et al., *J Hosp Inf* 1985

DNA, RNA, protein deactivation

Ascoli & Kahan, *J Biol Chem* 1966
Hwang et al., *Arch Pharm Res* 1992

GTF inhibition

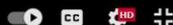
Furiga et al., *Oral Micro Immunol* 2008
Evans et al., *Aust Dent J* 2015

6 mo *S. mutans* suppression

Caulfield & Gibbons, *J Dent Res* 1979
Gibbons et al., *Infect Immun* 1974

19:09 / 1:07:03

Scroll for details



- For more Information, Dr. Jeremy Horst Keeper DDS, PhD has WONDERFUL full length courses on povidone iodine.

- This screenshot came from this course: <https://youtu.be/uLrtPgWnWy0?si=e-6Oz8gE2iY6QHAn>

- The slides he is reviewing come from a previous course he did <https://youtu.be/vPrkD1w6388>



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- Great course on this go this website and look up Dr. Jeremy Horst, Iodine use in caries prevention and management: <https://www.elevateoralcare.com/elevatingcare>



Silver Diamine Fluoride



This is part of a 4 minute Caregiver Training YouTube Video that can be found at: <https://youtu.be/hjq6goWEjhc>

Full length course compares various protocols and “controversies”

One hour course available temporarily: <https://youtu.be/gAV1hJt5Er8>

Success and Risk Based Re-application



Warning with SDF Stains EVERYTHING

Carious Lesions= FOREVER or until the dentist fixes it



Skin 2-14 days



The mirror test

- Get it off your counters:
- My Favorite: Mr. Clean Magic Eraser
- Per product insert: water, soap, ammonia, iodine, sodium hypochlorite (if very hard)
- As with any cleaner test first in small area



Want More Info on SDF?

- My One hour course for medical providers available: <https://youtu.be/gAV1hJt5Er8>
- Many Courses on this website: <https://www.elevateoralcare.com/elevatingcare>



Dr. Jeremy Horst



Dr. Jeanette MacLean

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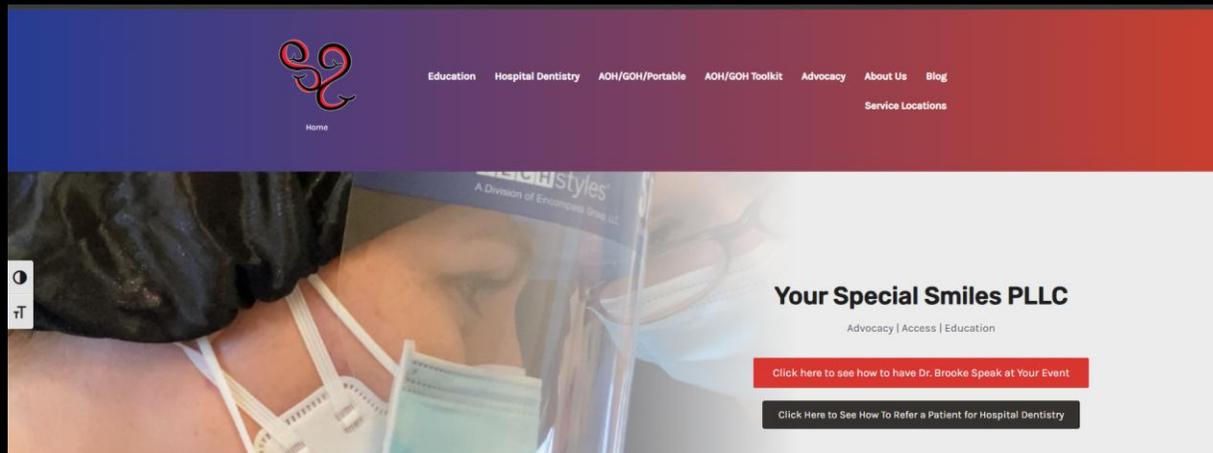
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