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Virtual
May – July 31, 2024

45th National Conference on Pediatric Health Care

Say Ahh! Preventing Early Childhood Caries in Pediatric Primary Care

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School of Nursing

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Speaker Disclosure

Dr. Verzemnieks

• Nothing to disclose

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PI: Dr. Francisco Ramos-Gomez, DDS (UCLA Dental School)

Dr. Westphaln

• Nothing to disclose

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UCLA School of Nursing Liaisons - HRSA Oral Health IPE

• Prior to 2015
Leah FitzGerald, PhD, FNP

• SPICE-PD (2015 - 2020) [HRSA Grant D88HP20129] **PNP students** (+ added content to pre-licensure Pediatric & Public Health Nursing courses/clinicals)
Inese Verzemnieks, PhD, RN, PHN

• CARE-PD (2020 - 2025) ***Current***
PNP + expanded to FNP students
Nancy Pike, PhD, FNP, PNP, FAAN
Laurie Love-Bibbero, DNP, FNP




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PNP/FNP Education: Improving Oral Health

Dr. Westphaln & Dr. Ramos-Gomez
with PNP students (2023)



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Learning Objectives

- Recognize that Early childhood Caries (ECC) is preventable with nurse-led anticipatory guidance.
- Identify strategies to implement Caries Risk Assessment in clinical pediatric practice settings.
- Discuss opportunities to promote pediatric oral and dental health.
- Recognize barriers to implementation of fluoride varnish application in the practice setting.

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Outline

BASICS of Oral Health	• Scope of the problem – Prenatal + young children • Basics of prevention • Development of cavities • Role of diet - The Stephan Curve
Oral Assessment	• "Lift the lip" • Caries Risk Assessment Tools [ex: AAP, ADA, Cavity Free at 3 (CO)]
Prevention Works What nurses can do	• "Self-management tools" • Patient education • Resources
Importance of a "Dental Home"	• Underutilization of dental services by eligible children
Primary Care and Fluoride Varnish – Simple and effective	• Easy and inexpensive • Does not replace a Dental Home…

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Focus on Prenatal & 0-5yo Oral

65 % Pregnant women do NOT visit a dentist during pregnancy – **yet 52% have problems**.

49 % California Kindergarteners (5 year olds) **never saw a dentist – and 54% have cavities.** *PREVENTABLE*

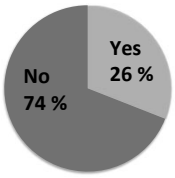
31 % **Miss school days related to decay** – and parents miss work

7

Prenatal Primary care providers…

Room for improvement

Percent of pregnant women in California whose medical provider SUGGESTED they SEE a dentist (2012)



Only 42% of medical care providers even discuss oral health with pregnant women…let alone suggest they see a dentist

Data provided by the Maternal, Child and Adolescent Health Program; analysis conducted by University of California, San Francisco (CDPH, 2017)

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Why is this important?

Children are NOT born with the bacteria that cause decay!!

- *Strep mutans (primarily)*
- Usually from mother / caregivers
- "Vertical transmission"
  after birth
  (So treat mom before…)

✓ ***Avoid Sharing saliva…***

- eating utensils (spoons)
- drinking cups
- tooth brushes
- open mouth kisses

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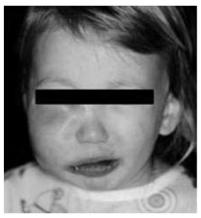
Effects of Early Childhood Caries (ECC)

- **Infections** Tooth → body → brain….
- **Pain**
  - Lack verbal ability to talk about pain
  - Affects sleep
  - Affects nutrition & growth
  - Affects concentration in school or play
  - School absence + parent misses work ($$$)
    CA: 874,000 school days missed (per year)
    Affects academic achievement…
  - Emergency Room visits (high cost of care)
- **Poor Self-esteem**
- **Treatment**
  - Younger children require sedation (Hospital)
  - Oral surgery: $12,000; 3-6 month wait
    - *High number of repeats…*



Facial Cellulitis: AAP Oral Health Image Library (Noel Childers, DDS)

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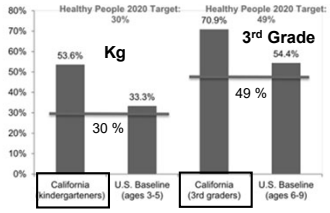
Figure 1. Dental Caries Experience in Children: California vs. *Healthy People 2020* Baseline and Targets.



California Dept of Public Health, 2017
https://www.cdph.ca.gov/PROGRAMS/CCDPHP/DCDIC/CDCB/CDPH%20DOCUMENT%20LIBRARY/ORAL%20HEALTH%20PROGRAM/STATUS%20OF%20ORAL%20HEALTH%20IN%20CALIFORNIA_FINAL_04.20.2017_ADA.PDF

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Every dollar spent on preventive dental care could save $8 to $50 in restorative and emergency treatments.

Source: Cigna - Improved Health and Lower Medical Costs

Highest savings: lowest income

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Many Oral Diseases are Preventable!

"The Basics…."

- ✓ **Brush 2x/day**
  - Soft bristle toothbrush
  - Fluoride toothpaste
  - Focus on area where teeth & gums meet
- ✓ **Floss 1x/day**
  - When teeth touch
- ✓ **Fluoride varnish**
- ✓ **Dental Home**
- ✓ **Avoid frequent snacking**
  Limit sugars & carbs
- ✓ **Avoid "vertical transmission"**
- ✓ **Avoid alcohol & tobacco**
- ✓ **Visit dentist** every 6 months (or more if indicated)

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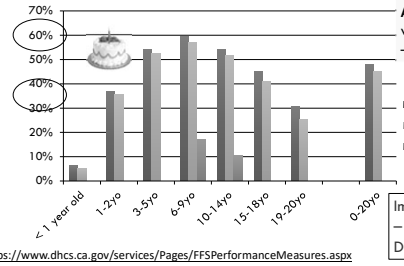
Medi-Cal Dental Utilization (FFS)

April 2022 - March 2023 (California)



ADA, AAP Recommend: ALL kids visit before 1st Birthday & every 6 – 12 months (at least)

Improved since 2018 – but **ALL are High Risk?**
Despite eligibility: access issues

https://www.dhcs.ca.gov/services/Pages/FFSPerformanceMeasures.aspx

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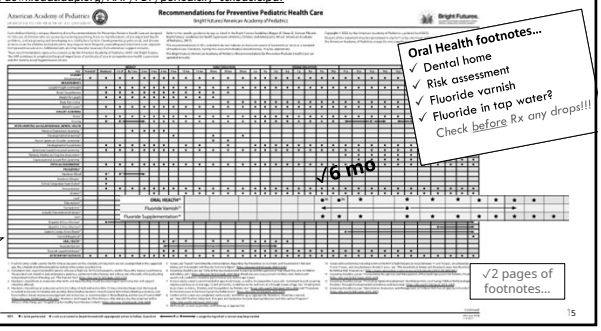
"Periodicity Chart" (2023) - AAP/Bright Futures

https://downloads.aap.org/AAP/PDF/periodicity_schedule.pdf



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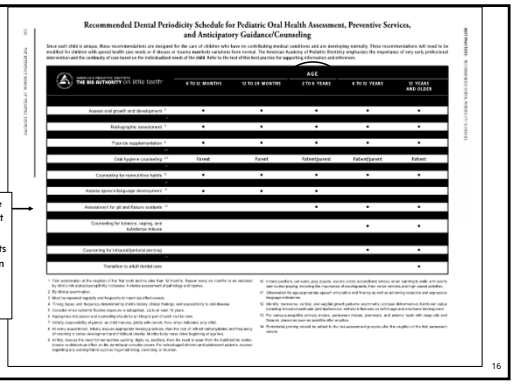
AAPD Best practices (2023)

"13 – For caries susceptible **primary molars**, permanent molars, premolars and anterior teeth with deep pits and fissures; placed as soon as possible after eruption"



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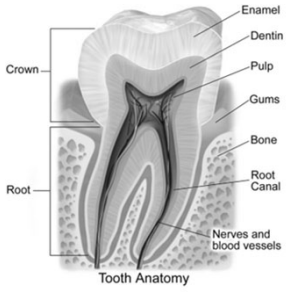
Tooth Anatomy



← **Rods** - vital
← Tubules
← **PAIN**

Image: Blausen.com staff
Wikimedia Commons
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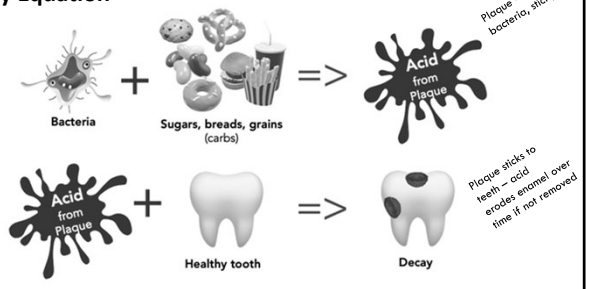
Decay Equation



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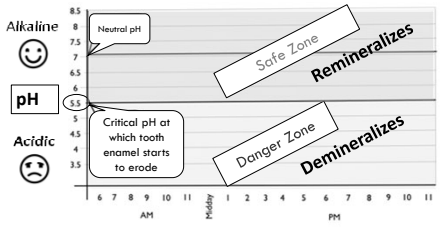
Stephan Curve [Acid vs. Alkaline environment]

Important concept for preventing cavities…



Saliva helps neutralize

Alkaline: enamel has chance to recover **(remineralize)**

Acidic: enamel vulnerable to damage **(demineralize)**

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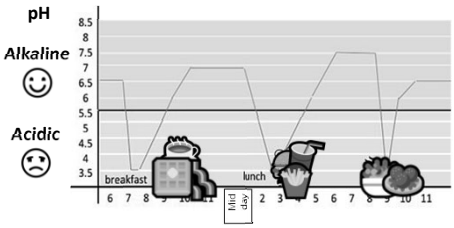
Stephan Curve

Takes 30-60 minutes to "recover" after eating



← tap water helps

Alkaline: enamel has chance to recover **(remineralize)**

Acidic: enamel vulnerable to damage **(demineralize)**

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Acid vs. Alkaline Foods

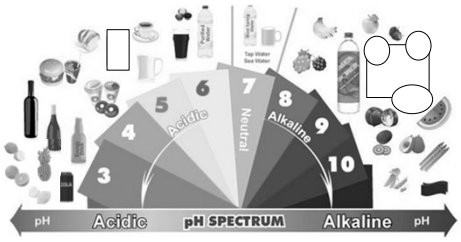

Image source: Alkalife.com (Adapted to reflect oral pH effect)

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pH of common beverages

Reddy et al., 2016

pH		Erosive?
2-3		Extremely
3-4		Moderately
4-6		Minimal
7		Neutral +

A "squeeze" of lemon in tap water: pH drops to 3…

Orange Juice: pH = 3

Use straw to prevent enamel problems.
Rinse mouth with tap water.

Beverage	pH	
Tap water (LA DWP)	7.3-8.4	
Starbucks coffee	5.11	
Sparkling water	4.96	
Snapple Diet Peach Tea	3.32	
Sprite	3.24	
Pepsi	3.39	
Diet Pepsi	3.02	
Gatorade (Orange/other)	2.99	
Coca Cola	2.8	
Powerade (Fruit punch)	2.77	
Fanta (Orange)	2.67	

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Tap water is best!

Check CDC "My Water's Fluoride" to see if water is fluoridated (varies a lot in many cities!)
https://nccd.cdc.gov/DOH_MWF/Default/Default.aspx

Bottled water –
- ✓ Unless label says it has fluoride, probably does not (usually cost more).
- ✓ Tap water is far more regulated than bottled water.
- ✓ Plastic waste…

"*Share the love, Share the water*" – videos (2 min.) [The Mighty Mouth website – Delta Dental Washington - https://www.themightymouth.org/
SP: https://youtu.be/nOGVWNGdPII
EN: https://youtu.be/5T8uHVa9z90

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About water filters…

- "Reverse Osmosis" removes fluoride ($$)
- **Pitchers** - can remove CHLORINE and some contaminants (Mercury, etc.)
  - Mainly taste/smell better
  - **Fluoride not removed** with most
  - Check websites – state +
  - Are they certified?: NSF, WQA
- **CHANGE filters – per recommendations!**
  - *Filters TRAP contaminants*
  - *Clogged filters let them come through…*

Educational purposes only.
No product endorsement.

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Snacking - Limit snacks to 2-3 times per day.

Sip & Snack all day, get decay!

Healthy Snacks:

- ✓ **Tap water**
- ✓ Fresh Fruits
- ✓ Nuts (!choking!)
- ✓ Cheese – **low fat**
- ✓ Fresh vegetables
- ✓ Yogurt (Check for sugar!!)

Cavity-causing snacks:

- Cookies
- Bakery goods
- Fruit juice
- Soda
- Gatorade
- Fruit Snacks
- Dried Fruit
- Raisins

Avoid sticky foods!!

"Food Pouches" - A new challenge

Kids love them…*but…*

- ► **Close, continued contact of sugars to teeth…**
- ► Extra calories (dense)
- ► Sugar content…
- ► Encourages sucking food – not chewing
- ► Environmental waste

Better to eat real food!

Okay occasionally…

Teach parents:
Check labels for sugar!

How many teaspoons of sugar are in favorite foods?

First: check Serving size

Find the "sugar" content (grams) 16

DIVIDE that number by 4 4

= the number of teaspoons of sugar per serving **= 4 tsp.**

(2 tsp are ADDED)

Adult daily max for ADDED sugars = 25 grams…(WHO)

Children 4-6 years old: MAX? 16 grams /day (5-10% calories)

…how about 100% fruit juice?

AAP 2017:
NO juices under 12 months;
4-6 oz max./day 1-6 y.o.

1 cup of juice =
2 - 4 oranges
(without the fiber)

…and ***pH = 3***
(even diluted!)

250 mL
= 1 cup
= 8 ounces

23g
4

= **almost 6 teaspoons of sugar** per serving
(even if not "added")

Photo: CC BY-NC

Some important words that mean "sugar"

Check "ingredient listings"

UCSF – "Sugar Science" - http://sugarscience.ucsf.edu/

- Fructose
- Sucrose
- Evaporated cane sugar
- Concentrated fruit juice (grape, other)
- Corn syrup
- **High fructose corn syrup**

Research: high fructose corn syrup may be linked to insulin resistance which can lead to type 2 diabetes.
…linked to obesity & fatty deposits in liver.

Sugar hiding in plain sight (TedED) https://youtu.be/Q4CZ81EmAsw
What sugar does to our body? https://youtu.be/utXcl3FqzeM

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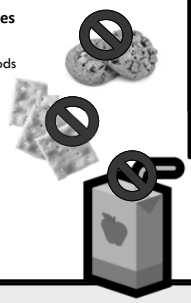
Nutrition reminders

- **LIMIT sweets/carbohydrates**
  - Candy
  - Cookies, cake, baked goods
  - Pastries
  - Dried fruits
  - Sugary drinks
    - soda
    - fruit-flavored drinks
    - ..and fruit juice



If eat/drink sweet things:

- ✓ *Have them at mealtimes*
- ✓ *Rinse with/drink water after*
- ✓ *…and, WAIT to brush…*

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Brushing teeth

- **Soft bristle toothbrush** small head
- Use **Fluoride toothpaste** (amount varies by age)
  - ✓ Start with **1st tooth**
  - ✓ *Just spit out – No need to rinse!*

https://2min2x.org/

- 45-degree angle - at gum line
  - ✓ get UNDER gums
- Circles (or "wiggles" or "vibrate")
- Be gentle – *not too hard*
  - ✓ 2 minutes
  - ✓ 2 times a day (esp. bedtime)

GUM ™

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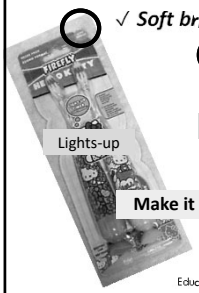
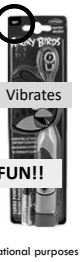
Toothbrushes – Child & Adult

✓ *Soft bristles*



Lights-up



Vibrates

Make it FUN!!

ADA accepted (+)

Good quality brushes are available at many discount (99-cent-type) stores.

Shop Smart!

Educational purposes only. No product endorsement.

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REPLACE toothbrush…

- These bristles are **not** effective
  - *May be a sign you brush too hard!*
- Replace when it starts to fray!
  - *Every 3-4 months*
- Do not share toothbrushes

No excuses –

Can get good quality at low cost…

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Reinforce Toothbrushing Messages

- 2 X / day - 2 minutes each time
- Use fluoride toothpaste – with first tooth
- Brush all surfaces
  - 45-degrees - circular, gentle
- No need to rinse! Have child spit out (or wipe)
- Kids need help brushing - till they can "tie their shoes" (6-8 yo)
- Floss when teeth touch (1X/day)
- Toothbrush – Soft bristles – small enough
  - Do NOT share toothbrushes!
  - Replace toothbrush every 3-4 months

Excellent resources
https://2min2x.org/

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Avoid problems

Uncooperative children or those with disabilities - need extra help and patience brushing & accessing care!

- *Begin early & keep good habits!*
  - Make it fun! *Songs – music - apps*
  - Do not argue or get mad
    - YOU are the parent!
    - *"This is important - I want you to have healthy teeth"…*
  - Celebrate when done – *"Hooray! This is how we fight decay!"*

"Oral Health Kansas" - multiple tip sheets, videos - http://www.oralhealthkansas.org/Consumers.html

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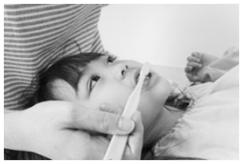
Positioning Tips

- Make sure you can see what you are doing + control head
  - Lay child down - couch, bed, floor
  - Sit behind for better visibility
  - Tilt their head back
- Knee-to-Knee with 2 people for added help!



Shutterstock

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How much Fluoride Toothpaste?

Depends on AGE

- Before teeth erupt: water only
  - ✓Wipe/massage gums with clean washcloth – after feedings
- When first tooth erupts (ADA, 2014)
  - ✓ *Brush – 2X/day*
  - ✓ Use a smear (grain of rice) fluoride toothpaste – till 3 years old, then…
  - ✓ **"Pea at 3"** *Supervise! Not too much!!!*
- No need to rinse: spit (or wipe)

AAP, 2014; AAPD, 2014; ADA, 2014

NEW - since 2014

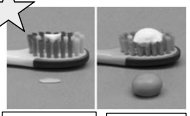

Image: ADA, MouthHealthy™

Smear	Small
Grain of rice	Pea size
< 3 years old	≥ 3 years old

"A pea at 3"

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Fluorosis in the USA…minimize the risk

= Discoloration of teeth with chronic excessive exposure to fluoride during tooth development (till 8yo). **Does not affect systemic health or tooth strength…**

US EPA Maximum Fluoride limits = 0.06mg/kg/day

- Depends on **amount, duration, and timing** of excess fluoride intake
  - *AVOID unneeded fluoride drops (✓water supply before Rx)*
  - *AVOID too much toothpaste on brush (swallowing)*
- **Cosmetic issue** – decreases with age

Est. Amount of Fluoride in:
"Smear" ≅ 0.1mg
"Pea"≅ 0.3mg
1 liter tap water ≅ 0.7mg

Used correctly, fluoride in toothpaste & tap water is NOT enough to cause fluorosis…

Fluorosis: AAP Oral Health Image Library (Martha Ann Keels, DDS)

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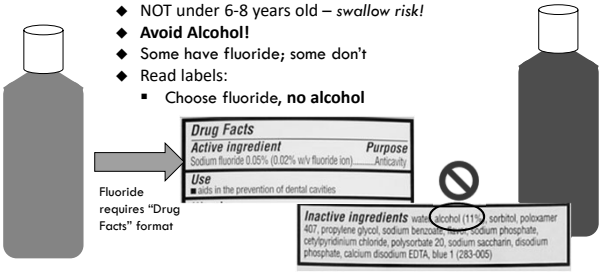
Mouthwash

- NOT under 6-8 years old – *swallow risk!*
- **Avoid Alcohol!**
- Some have fluoride; some don't
- Read labels:
  - Choose fluoride, **no alcohol**



Fluoride requires "Drug Facts" format

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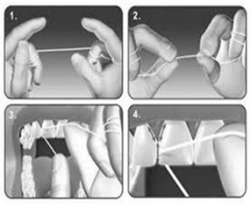
Flossing

Child: Begin when teeth touch each other



- Go between the teeth with floss.
- Make a C-shape (3) around one tooth
- **Scoop up & down the side of each tooth** (4).
- Repeat around each tooth, top and bottom.
- **Flossers** - help make flossing easy.

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Morning Sickness & Oral Health

- **Acid attacks tooth enamel → demineralizes**
  - → VULNERABLE enamel
  - Rinse mouth with plain water OR
  - Mix 1 teaspoon baking soda in cup (8 oz.) of warm water to rinse mouth
    - Neutralizes the acid; protects enamel
- **Wait 60 minutes to brush teeth**
  - Brushing too soon harms weakened enamel
  - Neutralize first
- **? Fluoride-containing mouth rinse, before bed** - may help remineralize teeth

CDAF, 2010

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Prenatal care: Gum disease may cause preterm birth

Infection → Inflammation in the gums → systemic

- Can start early labor…
- Babies born too early
  - May stay longer in hospital
  - May need extra medical treatment
  - May have more problems as they grow

Image: Creative Commons

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Dental Visits & Pregnancy

- ✓ **Get dental care! Begin EARLY!!**
  - ✧ CA: Medi-Cal/Denti-Cal covers pregnant women (+ 60 days after delivery)
  - ✧ Visit at least every 6 months – exam & cleanings
- ✓ **Tell the dentist you are pregnant and your due date**
- ✓ Most dental procedures are safe –

2nd trimester is best time for Treatments

- Cleanings, fillings, X-rays – okay anytime
- X-rays: Ask for a "lead apron" to cover stomach and neck
- Reclining in chair (as abdomen gets bigger): place a pillow/roll under RIGHT hip to prevent low BP/fainting (weight of fetus off major blood vessels)

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In utero

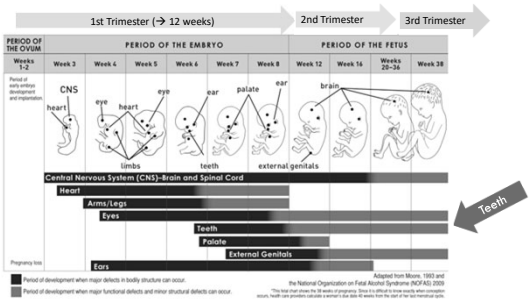

Image: CDC National Center on Birth Defects, "Alcohol free pregnancy"

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Dentists recommend 2nd Trimester as best timing for dental treatments during pregnancy

NO EVIDENCE that 1st trimester treatments are harmful to the baby or mother… "abundance of caution"

1st Trimester	2nd Trimester *Most comfortable*	3rd Trimester
Pre → 12 weeks	~13 - 27 weeks	~ 28 – 40 weeks
Get a dentist! Exam & cleaning	**Exam & cleaning** *(q3-6months)*	
Wait for elective… Emergency care is OK for: ✓ Infection ✓ Pain ✓ Emergency	BEST time to get elective dental work done	Wait for elective… Emergency care is OK for: ✓ Infection ✓ Pain ✓ Emergency

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Prenatal Oral Health Messages

- **Get Dental Care during pregnancy!**
  - **"Dental Home"**
  - Most procedures SAFE (INFORM of pregnancy)
- **Educate about "Vertical transmission"**
  - *Strep mutans*
  - *Don't share saliva!*
- **Educate: Brush & floss - Gingivitis**
  - Fluoride toothpaste - no need to rinse…
  - Don't share brush
  - Replace brush q 3-4 months
- **Encourage Fluoride** in tap water & toothpaste
- **Benefit of Sugarless gum – Xylitol** best (if FIRST ingredient)

AAPD, 2011; ACOG, 2015; ADA, 2016; CDAF, 2010; OHCDPWG, 2012

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Bedtime / naptime

- **Do not let baby fall asleep with bottle or breast in mouth**
  - Milk pools in mouth – *so wipe mouth*
  - Milk (even Breastmilk) has sugar
    - Can lead to cavities if left on the teeth
    - Even breastfed babies can get ECC!

Last thing to touch a child's teeth before bed is the toothbrush with fluoride toothpaste.

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Habits – Cups

Shutterstock

- **Sippy cup** (baby can sit) ~6 months
  - Ad lib: plain water with fluoride
  - Milk or juice ONLY at mealtimes
- **Open Cup: Begin at 12 months**
  - Liquids at meal times
  - Small amounts

AAP: NO JUICE under 12 months…

Pediatric Dentists (AAPD): NO JUICE ever for children.

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Pacifiers

- **Wash daily** – use dish soap and rinse well with hot water
  - ✕ **DO NOT** dip pacifier in sugary liquid (sugar or honey) and give to baby
  - ✕ **DO NOT** "clean" pacifier in YOUR mouth – can *transfer bacteria…*
  - ✕ **NEVER** hang pacifier around child's neck or on a LONG string/cord
    Strangulation danger !

CBS News – 5/6/13 (report on published study decreasing allergies and sharing saliva – *Pediatrics* – Hesselmar et al., 2013)

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Dental Health: Tooth Eruption

Shutterstock

Start erupting ~ 6 months (to 12 months) *order important, not timing*

Bottom 2 →Top 2 → lateral incisors (T→B) (SKIP canines) → 1st molars → canines → 2nd molars

By 3 years old: all 20 primary teeth

First Dental Visit?

(ADA, AAPD, AAP)

- ✓ After first tooth erupts - **or** - By the first birthday if no teeth yet
- ✓ Then q. 6 month check-ups

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Teething

- Causes fussiness, sleep interruption - might be painful
- *Drooling is common – can cause rash*
  - ✓ *Wipe neck creases*
- Before tooth emerges: an "eruption hematoma" may appear (discolored bulge) - does not require treatment

Teething does NOT CAUSE:

- ✕ Fevers (? low grade)
- ✕ Upper respiratory infections
- ✕ Ear infections
- ✕ Diarrhea

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Teething Treatments

- Use bib for the drooling!
  - ✓ Wipe under chin/chest!
- Massage baby's gums for comfort
  - ✓ With clean cloth or finger
- Give a **cold (not frozen)** teething ring
  - ✓ Cold/frozen washcloth to chew on (
    - ✓ *no fraying threads)*
  - ✓ **Avoid solid frozen liquids/rings** - too hard, can damage gums!
- **Safe things to chew on - avoid choking**
  - ✓ Avoid "amber beads", unsafe items

Teething gels or tablets: can be dangerous and cause harm – even if sold over the counter or labelled "homeopathic"
✓ FDA reports…Esp. "benzocaine"

"Natural" does NOT mean it's "safe"!

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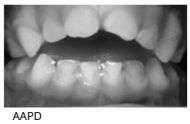
Thumb Sucking → habit…

- **What is the risk? Open bite +**
  - Open bite can affect speech, swallow
  - Usually not a problem till after 4-6 years old (permanent teeth start erupting)
- **Break the habit before permanent teeth come in**
  - Especially if changes with the bite occur
  - CA Medi-Cal: "Medically handicapping malocclusions" eligible for orthodontic benefits when permanent teeth are in (~13yo < 20yo)



AAPD

Easier to give up pacifier than thumb…

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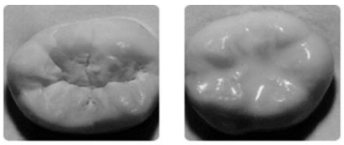
Sealants

- Help prevent cavities on biting surfaces of molars
  - Up to 80% reduction
  - **Primary & Permanent molars**
- Tooth colored material **seals deep grooves**
- Prevents accumulation of bacteria and plaque



AAPD

Does wear off – may need replacing

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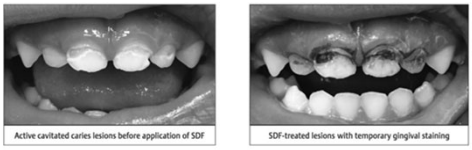
Silver Diamine Fluoride
Dental treatment

New !

- **Arrests active cavities** - May require multiple applications
- **For cavities that have not extended into pulp**
  - ✕ Permanent BLACK staining of affected teeth…cosmetic



AAPD: http://www.aapd.org/media/Policies_Guidelines/R_ChairsideGuide.pdf

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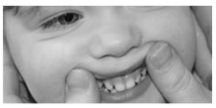
"Lift the lip" – Take a look !

Teach parents to do this too!

- **Look** inside child's mouth - every month
- **Lift the top and bottom lips**
  - Bottom teeth are often spared (tongue, saliva)
  - Top teeth affected first…
- Inspect teeth & gums
- Look inside – **"Knee to knee"**



Unknown source

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What healthy baby teeth and gums look like…

AAP Oral Health Image Gallery

- ❑ **Pearly, smooth teeth**
  - O No white or dark spots
- ❑ **Pink, moist gums**
  - O No bleeding
  - O No swelling
- ❑ **No bad breath**
- ❑ **No plaque**

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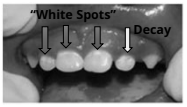
Primary teeth <u>are</u> important!

"White spots" = Early stage of decay ("demineralization"),
✓ near gum line (TOP teeth first)

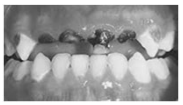
REVERSIBLE at this point

Left untreated?
→ Cavities / Decay (Brown, black)

"Lift the lip"



Joanna Douglass (AAP Image Gallery)



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How do we treat white spot lesions?

- ◆ **Improve oral hygiene and diet habits**
  - Brush 2X per day – use fluoride toothpaste
  - Limit snacking - especially sugars/carbs/"grazing"
- ◆ **Fluoride** - Can prevent progression to a cavity
  - Spit (don't rinse) toothpaste after brushing – added fluoride
  - Drink water with fluoride
  - Primary care providers can apply fluoride varnish (USPSTF – since 2014) State regs vary…
- ◆ **Dental Referral**
  - Exam, xrays
  - More frequent Fluoride varnish
  - May prescribe high fluoride toothpaste + more

USPSTF (2014 & 2021)
Children under 5 yo (PCP):
Fluoride varnish with first tooth eruption in children under 5. **[B grade]**
Fluoride supplementation at 6 mo if not in water supply **[B grade]**
Insufficient evidence of routine exam by PCPs for dental caries benefits or harms **[I grade]**

USPSTF (2021): https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/prevention-of-dental-caries-in-children-younger-than-age-5-years-screening-and-interventions1

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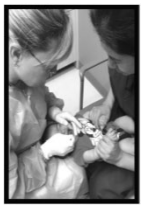
"Knee to Knee"
Useful for Exam, Brushing, & Varnish Application



UCLA

- Child sits on parent lap, face-to-face
- "Lies down", head on provider's lap

✓ Parent can control arms, head and legs as needed
✓ Provider can show things to parent and visualize – demonstrate brushing, etc.
✓ Crying actually helps child open wide

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Applying Fluoride Varnish

Typically 5% sodium fluoride [2.26% fluoride]
Many flavors, types [25-45% *reduction in cavities]*

- **Assess for contraindications** + get consent (templates) – contains colophony/resin base
  - ✓ Rare: Allergy (Asthma), gum irritation
- **No need to brush teeth** – can wipe with gauze
- **Dries immediately** (even with saliva)

Parent instruction:

- Let it "wear-off"
  - ✓ Wait to brush and floss the next day
  - ✓ Avoid hot, sticky, crunchy foods for 2-4 hours
  - ✓ Most absorption is in first 6 hours – but varies

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Steps: Applying Fluoride Varnish

- **Consent [or "standing order"]**
  - ✓ Check for allergies, contraindications
- **Mix varnish with brush before applying**
- **Work in Quadrants/Sections**
  - ✓ Finish with front
- **Apply to all surfaces**
  - ✓ Thin layer – "like nail polish"
  - ✓ Avoid large cavities (sensitivity)

Takes less than 2 minutes?

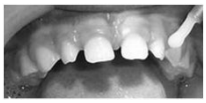

Image: Tennessee Dept of Health

Numerous video resources online:

- ✓ Minnesota Oral Health Coalition – Provider Training video (they have parent videos too) https://www.youtube.com/playlist?list=PLqMKxWcAqW4VIJvaQxoZN-5tCxLBLZVq
- ✓ AAP – FREE video https://www.aap.org/Preventive-Oral-Health-Services-Video-Series
- ✓ Maine "From the first tooth" – instruction video https://www.youtube.com/watch?v=Lx0WNvzwV0E

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https://downloads.aap.org/AAP/PDF/coding_factsheet_oral_health.pdf

Billing - Varies by state, As does what is reimbursed

AAP "Oral Health Coding Fact Sheet for Primary Care Physicians" (2022) – includes more codes
https://www.aap.org/en/patient-care/oral-health/payment-for-oral-health-services/

Procedure	Insurance (CPT codes)	Medicaid (CDT codes?)
Fluoride Varnish Application	99188	D1206
Counselling (15 minutes)	99401	
Counselling (< 15 min)	99429 or 99499	
Oral Hygiene Instruction		D1330
Oral Exam (Risk Assessment)		D0145

AAP Video (billing etc. FREE) https://www.aap.org/Preventive-Oral-Health-Services-Video-Series

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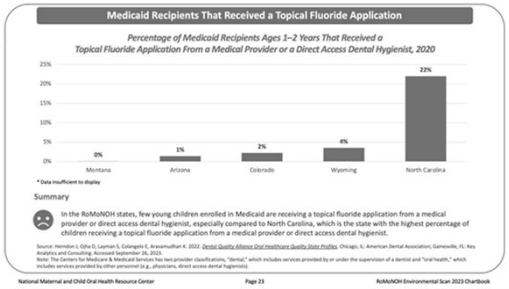
Colorado

Medicaid and fluoride varnish?

Nationally, only 8% of Medicaid patients get fluoride varnish in medical settings, yet 89% get preventive medical care.

Private insurance: 5% (Geissler et al., 2021)



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Why Caries Risk Assessment?

- **MOST caries are caused by risk factors that can be controlled or modified.**
  - Assess those factors systematically.
- Informs **Self-management** and **Patient/Parent education.**
- Variety of forms exist
  - AAP (revised 2023)
  - AAPD
  - ADA 0-6yo, > 6yo
  - Cavity Free at Three (Colorado)

AAP Periodicity chart:
Perform at 6 months (& q6m)
- ✓ → *Dental home*
- ✓ *Caries risk assessment*
- ✓ *Apply fluoride varnish*
- ✓ *Check fluoride in water before any fluoride supplement Rx*

Research still needed to "validate accuracy and utility of caries risk assessment instruments for use in primary care" (USPSTF, 2021)

National Association of Pediatric Nurse Practitioners

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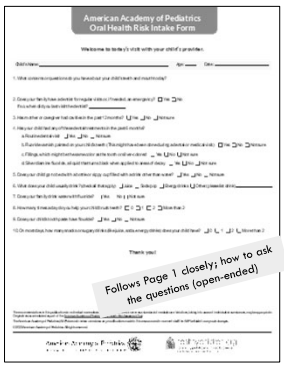
AAP Oral Health Risk Assessment (English & Spanish)

AAP+ Bright Futures (2011; rev. 2023*)

Primary care – based on CAMBRA developed by Dr. Francisco Ramos-Gomez (UCLA) – 2011

- Intake Form: Parent fills out? (+/-) →
- Form: Screen for RISK
  - Risk and Protective factors
  - Clinical findings (Great Visuals)
  - Guidance provided
- Form: Self-management Goals
  - Parent selects 2 + rates self-efficacy

*https://www.aap.org/en/patient-care/oral-health/oral-health-practice-tools/



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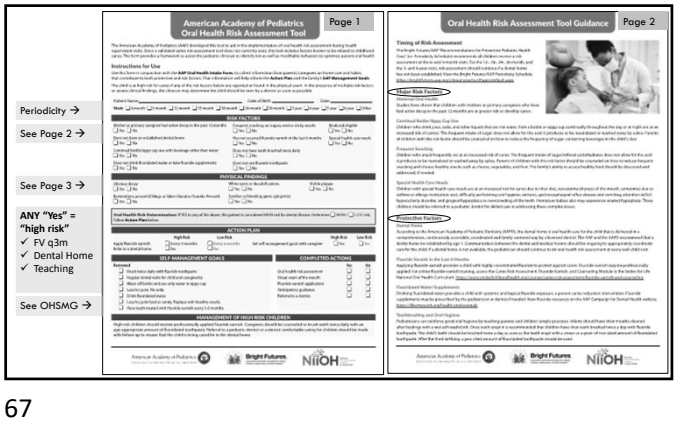

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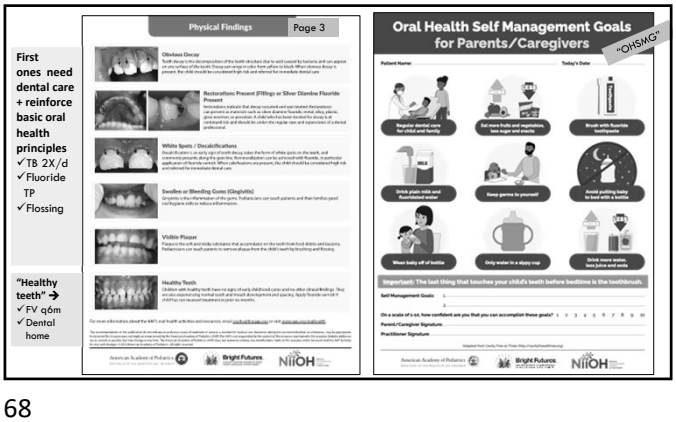

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Finding a Dental Home…

- Word of mouth – Patient recommendations? Network? Survey? 211.org?
- **Dental Schools:** Pediatric dentistry (Sliding scale fees?)
- **Insure Kids Now** – (National) names, specialties, languages – No guarantees accepting…interactive site with many more providers, links to maps: https://www.insurekidsnow.gov/coverage/find-a-dentist/index.html
- **"Smile California" website** – zip code + includes some "out of state" providers - https://www.denti-cal.ca.gov/find-a-dentist/home

  California: Dental Clinics Serving Med-Cal Beneficiaries (FQHC) - *zip*

  https://www.denti-cal.ca.gov/Beneficiaries/Denti-Cal/Dental_Clinics_Serving_Medi-Cal_Beneficiaries/

  If you have trouble: contact Denti-Cal Service 800-322-6384 (CA)

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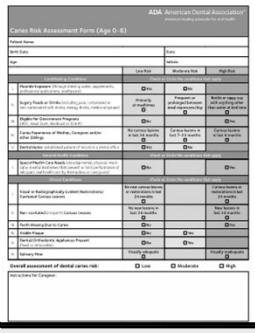
ADA (0-6)

also have >6yo

Clear identification of what contributes to:

- Low
- Moderate
- High risk

https://www.ada.org/en/member-center/oral-health-topics/caries-risk-assessment-and-management


ADA American Dental Association®

Caries Risk Assessment Form (Age 0–6)

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Cavity Free at 3

(Colorado)

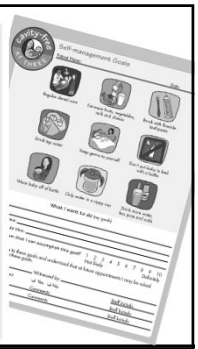
- Medical Office Form
- Specific 0-3 years

ADDS primary teeth diagram…

- Have their own "Self-management Goals" Form - similar

Rich resources:
http://www.cavityfreeatthree.org/


Pediatric Oral Health Screening
Medical Office


Self-management Goals

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Infant Oral Health Messages

- Prevent Vertical Transmission & ECC
  - Feeding – don't share spoons, saliva – educate ALL
  - Pacifiers – wash daily – no "cleaning in your mouth" *NEVER dip in sugar or honey!*
- Bottles at bed – NEVER Milk or Juice
  - Transition to cup: by 12 months
  - Sippy cup: water ad lib; milk/juice at mealtimes only – *Not ad lib!*
- Brush Teeth with Fluoride Toothpaste: with first tooth
- Teething: Avoid Teething Gels or frozen solid
- First Dental Visit: a "Dental Home" – before 1st birthday

AAP, 2014; AAPD, 2014; ADA, 2014; CDAF, 2010


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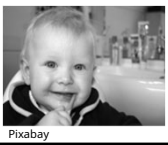
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SPICE-PD

Strategic Partnership for Interprofessional Collaboro
Education in Pediatric
Dentistry (PI: Dr. Francisco Ramos-Gomez)

Incorporated Oral Health content into PNP Course (Year 1):

Growth and Development (N223) included "screening" and primary prevention already.

+ above and beyond:
Pre-licensure courses (BS & MSN):
- Introduction to Pediatric Nursing
- Public Health Nursing (clinicals)

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UCLA PNP Curriculum Basics

- Needed – Oral Assessment & Health - missing in most programs
  - HEENT → INCLUDE "oral": HEENOT (Haber et al., 2015)
  - Lack awareness of oral care
- Add Oral Assessment content
- Lifespan Approach – What to assess + interventions
  - HRSA grant focus: prenatal + child to 5 years of age

CARE-PD added this → all APRNs

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- ***Smiles for Life*** **Modules & Phone App**
  - ✓ Completed [Prenatal + all General and Peds content]
- **Caries Risk Assessment Tools (CRA)** – *Written assignment*
  - ✓ CAMBRA (Ramos-Gomez) – Lecture by Pediatric Dentist
  - ✓ American Academy of Pediatrics (AAP) - *Oral Health Assessment Tool*
- **Fluoride Varnish Lab** - with RDH
  - ✓ Basics – comfort with equipment, mouth

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"Smiles for Life" Professional Education Resource

Smiles for Life
A national oral health curriculum

www.smilesforlifeoralhealth.org

Online courses – CEs + resources
45-min each (1 contact hour)

Smart Phone app
Includes CRA + more

REQ for students

https://www.smilesforlifeoralh

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- **IPE - with Pediatric Dentistry – A first**
  - ✓ Pediatric Dental Clinic – true IPE opportunity
  - ✓ Reviewing videos
  - ✓ Scheduling clinic time (remains an issue)
- **Look at PNP Clinical Practicums – several barriers continue…**
  - ✓ Few PCP sites apply Fluoride Varnish
  - ✓ PCP clinicians lack FV experience
  - ✓ Supplies and billing??
  - ✓ Dental Home: many dentists won't see <3, 5 yo…"able to sit in chair"

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OHNEP – NYU – Faculty Resources

Dr. Judith Haber, PhD, APRN-BC, FAAN - *"Put the 'O' back in HEENT"*

- ✓ Faculty Tool Kits (Curricula)
  - ✓ Undergraduate
  - ✓ PNP
  - ✓ FNP
  - ✓ Adult-Gero PC
  - ✓ Women's Health
  - ✓ Psych Mental Health
- ✓ Case Studies
- ✓ Resources
- ✓ Interprofessional Education
- ✓ Get on their Listserv

https://nursing.nyu.edu/w/ohnep

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Resources

- Bright Futures Oral Health Pocket Guide (3rd edition) – free download https://www.mchoralhealth.org/pocket/
- National MCH Oral Health Resource Center – education, resources and training materials, multiple languages https://www.mchoralhealth.org/
- Early Head Start – excellent parent education materials - multiple languages https://eclkc.ohs.acf.hhs.gov/oral-health

OHRC
National Maternal and Child Oral Health Resource Center

HEAD START | ECLKC
Early Childhood Learning & Knowledge Center

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PNP Student Feedback (Practicing RNs)

Immediately incorporate new evidence into practice

- First lecture or class by a Dentist – value IPE
- First time students learned of "white spots" – or knew to look
- Numerous issues in community – CRA Assignment; few dentists see kids <3
- Misconceptions/outdated information: preventive oral health practices
  - ✓ Not aware of 2014 ADA, AAPD, AAP changes and recommendations
- Hospitals (Currently many of our PNP students continue to work PT as RNs)
  - ✓ Poor quality toothbrushes
  - ✓ Lack of oral care
  - ✓ Scrutinize current practices (sippy cups; bottles; syrupy meds, etc.)
- Work in ER – began examining teeth and finding problems, educating

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Implications – Care Delivery

Primary Care: Despite USPSTF recommendation (since 2014) and state reimbursement, few practices apply fluoride varnish

- ❑ Need to increase skills for existing practitioners – Train more PCPs + how and where to order
  - ✓ Caries Risk Assessment & Preventive practices
  - ✓ Fluoride varnish application
  - ✓ More training opps for practicing clinicians
- ❑ Expand training to PHN nurses (home visiting) – serve many low income groups
- ❑ Expand RDH practice

Hospitals: Improve oral health education and practices – get on committees!

- ❑ New toothbrushes ☺
- ❑ Rinse mouth after syrupy meds

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Additional essential resources for nurses

California CHDP site - https://www.dhcs.ca.gov/services/chdp/Pages/CHDPDentalTraining.aspx

- Slides, Completing PM160 – reimbursement Form ($18 / Fluoride varnish)
- Where to get supplies, and more

American Academy of Pediatrics

- *Oral health* resources - *https://www.aap.org/en/patient-care/oral-health/*
- *"Protect tiny teeth toolkit": https://www.aap.org/en/news-room/campaigns-and-toolkits/oral-health/*
- *"Brush, Book, Bed" program: https://www.healthychildren.org/English/healthy-living/oral-health/Pages/Brush-Book-Bed.aspx*
- *Education and training page - https://www.aap.org/en/patient-care/oral-health/oral-health-education-and-training/*

American Academy of Pediatric Dentistry

- *Guidelines, policies* http://www.aapd.org/policies/

American Dental Association - *Mouth Healthy* – website https://www.mouthhealthy.org/

* Email Dr. Verzemnieks – additional resource packet

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UCLA Nursing references of interest

Pike, N. A., Kinsler, J. J., Peterson, J. K., Verzemnieks, I., Lauridsen, L., Love-Bibbero, L., & Ramos-Gomez, F. (2022). Improved oral health knowledge in a primary care pediatric nurse practitioner program. *Journal of the American Association of Nurse Practitioners,* 34(5), 755-762. https://doi.org/10.1097/JXX.0000000000000696

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Villalta, J., Askaryar, H., Verzemnieks, I., Kinsler, J., Kropenske, V., & Ramos-Gomez, F. (2019). Developing an effective community oral health workers - "promotoras" model for Early Head Start. *Frontiers in Public Health, 7*, 175. https://doi.org/10.3389/fpubh.2019.00175

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Questions?

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