



First Nations Health Authority  
Health through wellness

# ORAL HEALTH 101

Presented by FNHA Oral Health Team  
February/March 2016



## Today, let's talk about:

- The relationship between Healthy Eating and Good Oral Health
- The prevalence of oral disease
- The connection between mouth-body-health
- Oral diseases: gingivitis, gum disease, tooth decay & oral cancer
- Key oral health messages
- Effective family and community practices to support oral health
- Resources and key contacts



## Healthy eating and good oral health support overall health



- Good oral health helps us talk, smile and have a positive self-image
- Good oral health gives us a better quality of life
- Unhealthy eating can result in oral disease, pain and tooth loss

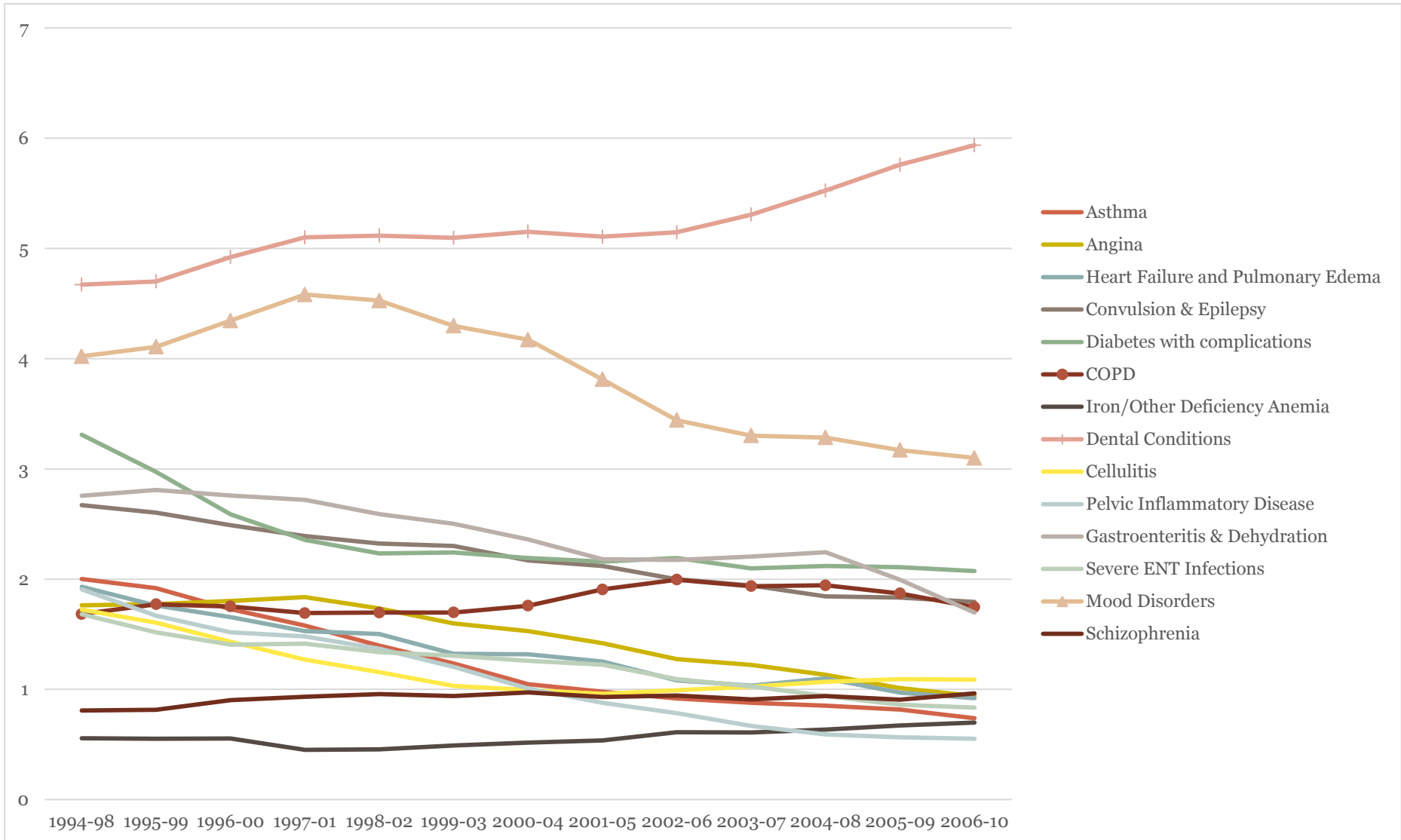


## How do we measure up for oral health in B.C.?

	Aboriginal			Non-Aboriginal
	Total	Public or independent schools	First Nations schools	
Kindergarten children who were caries-free	43.3% <sup>1</sup>	47.0%	21.5% <sup>3</sup>	69.5%
Kindergarten children who had treated caries	31.9%	29.1%	48.8%	16.8%
Kindergarten children with visible decay	24.8% <sup>2</sup>	23.9%	29.7% <sup>4</sup>	13.7%

BC Kindergarten Survey, 2015

# Top condition all ages: dental!



“Lavoie JG, Wong ST, Ward A, O’Neil JD, Ibrahim N. (2016) Service Delivery Fact Sheet 1: Hospitalization for Dental Conditions: where are the trends for First Nations in BC living on reserve?”



## Impact of high oral disease rates in B.C.

- About 2.26 million school days and 4.15 million working days lost each year due to dental visits and dental sick days
- Productivity loss more than 1 Billion dollars/year
- Children who have cavities are more likely to have more cavities throughout adulthood
- #1 reason BC children receive a general anesthetic is for treatment of severe tooth decay.
  - *Wait list of 6-12 months for this urgent treatment*

**Oral disease is a disability -  
It decreases an individual's quality of life**



### *Oral disease causes:*

- Bad breath
- Bleeding gums, tooth decay, tooth loss
- Pain and infection



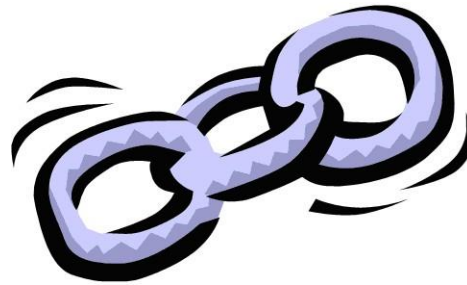
### *Oral disease affects:*

- Appearance, self-esteem, social interactions
- Speech and swallowing
- Ability to eat, nutritional status and weight loss
- Pain and discomfort

***Oral diseases impact and affect our overall health!***



## Making the mouth-body-health connection



- There is a growing body of research linking oral bacteria and inflammation to:
  - Heart disease and stroke
  - Pneumonia
  - Diabetes
  - Pre-term, low birth weight babies, **and more...**

***You can't be healthy without oral health!  
(U.S. Surgeon General 2000)***





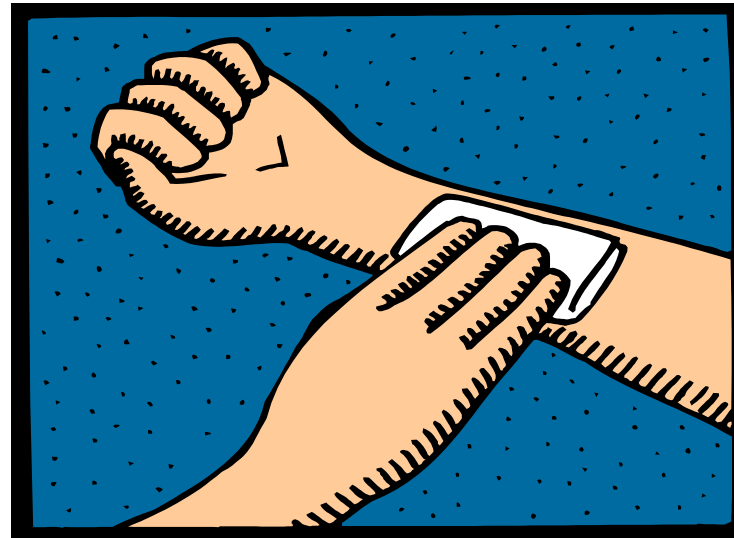
## Oral Diseases: Gingivitis & Gum (Periodontal) Disease

- Both are bacterial infections that can be prevented with good, daily oral hygiene & professional dental care
- Gingivitis can progress to gum disease, resulting in bone loss  
Signs: bleeding gums, bad breath, tooth mobility and loss
- Gum disease is irreversible, but can be controlled with regular treatment from a dentist, dental therapist, or dental hygienist





# Gum disease = an open wound the size of your forearm



*See red on your toothbrush... keep on brushing & flossing!*

Offenbacher S, Katz V, Fertik G, Collins J, Boyd D, Maynor G, McKaig R, Beck J. Periodontal infection as a possible risk factor for preterm low birth weight. J Periodontol 1996; 67: 1103-1113.



## Oral Cancer

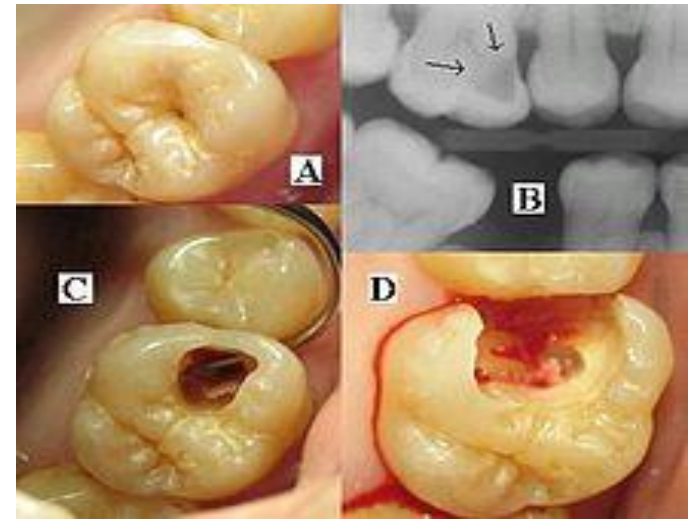
- 3 – 4 % of all cancers
- Five year survival rate is 62% or less
- Risk factors: tobacco use, alcohol abuse, sunlight, age, HPV
- Can be detected with regular visits to an oral health professional
- Everyone, even denture wearers, should see an oral health professional once a year





## Tooth Decay (Cavities)

- Is a bacterial infection
  - Affects all ages
  - Progresses quickly to pain and infection
  - Can result in tooth loss
- 
- Can be expensive to fix
  - Many have limited or no dental insurance
  - Fixing cavities does not stop the disease of tooth decay!
- 
- To prevent and stop tooth decay, cavity causing bacteria must be removed from the mouth



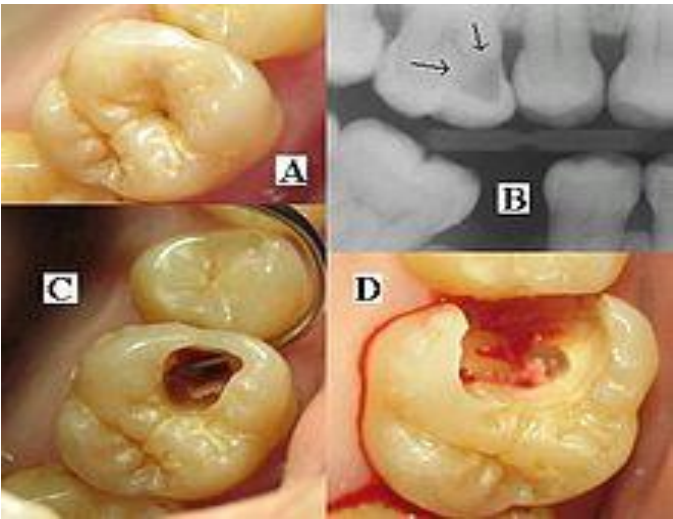


## Early childhood Tooth Decay (Cavities)

- The upper front teeth are the first to decay
- It starts as a white spot or line close to the gums
- Decay progresses quickly and can result in



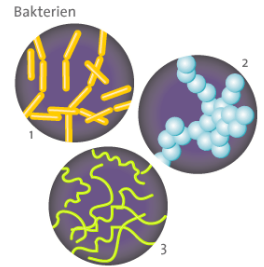




# Tooth decay - Adults



# Science of Tooth Decay

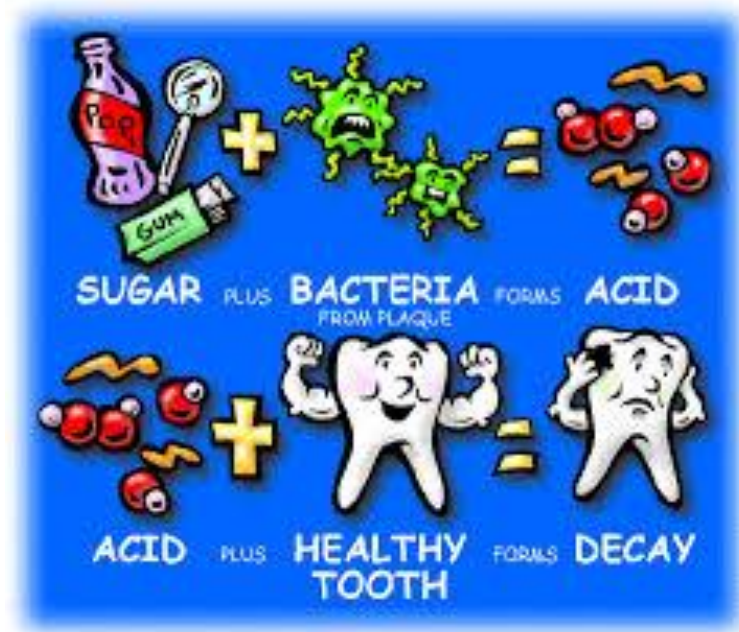


Tooth decay is a bacterial infection:

- the mouth is a perfect environment for bacteria
- **more than 700** different kinds of bacteria in the mouth
- everyone has their own “mix” of bacteria
- some of these bacteria can cause tooth decay and some can cause gum disease
  
- babies are born with a sterile mouth
- ***a child acquires bacteria from their caregivers*** by sharing saliva through normal parenting activities such as; pre-chewing food, cleaning pacifiers in the mouth, sharing spoons



## Tooth Decay



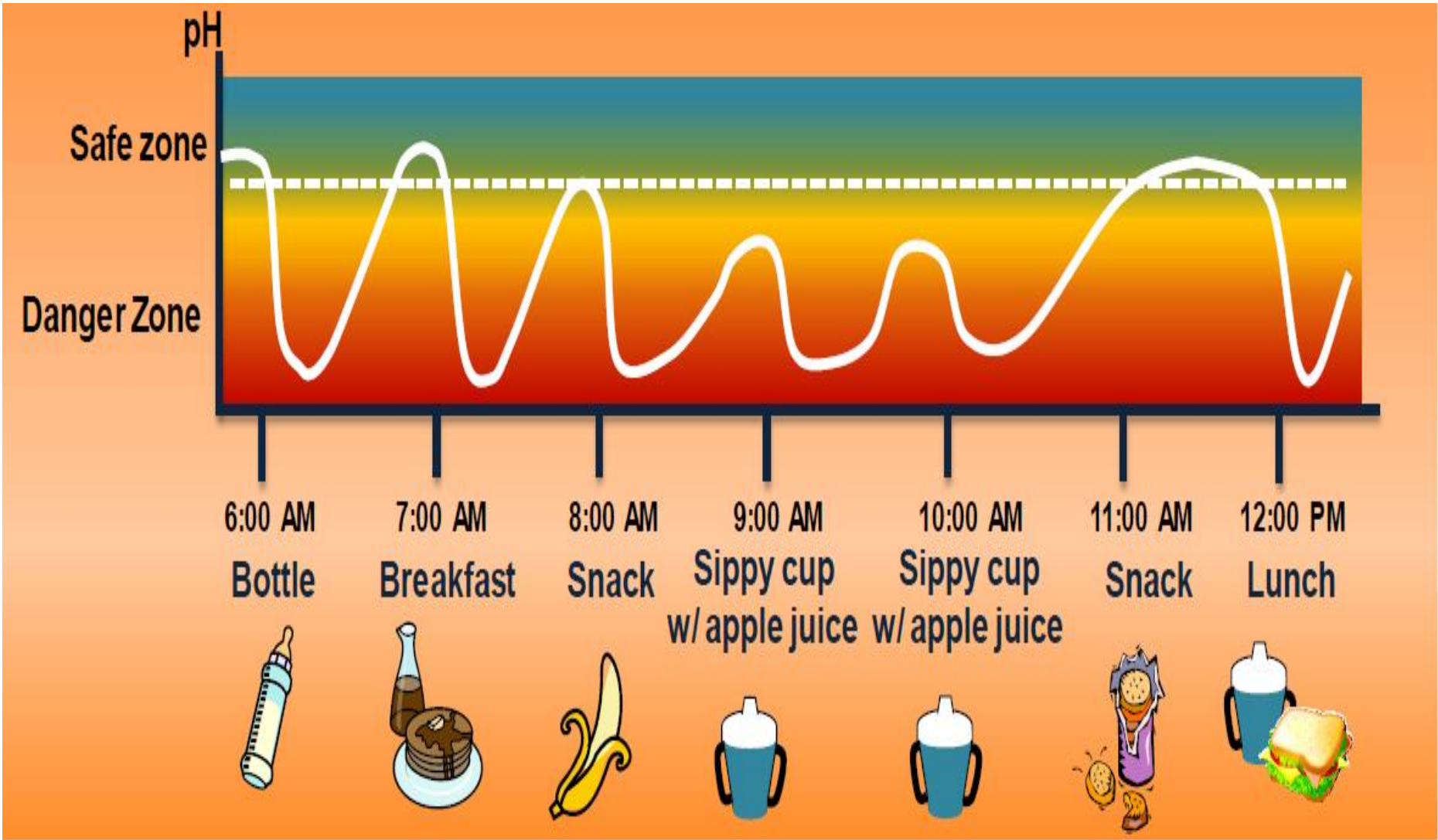
*Acid is produced for 20 – 40 minutes each time sugar is available in the mouth*

*The more OFTEN sugar is available in the mouth, the more risk of tooth decay*

***Over time and after frequent acid attacks, a hole or cavity appears***





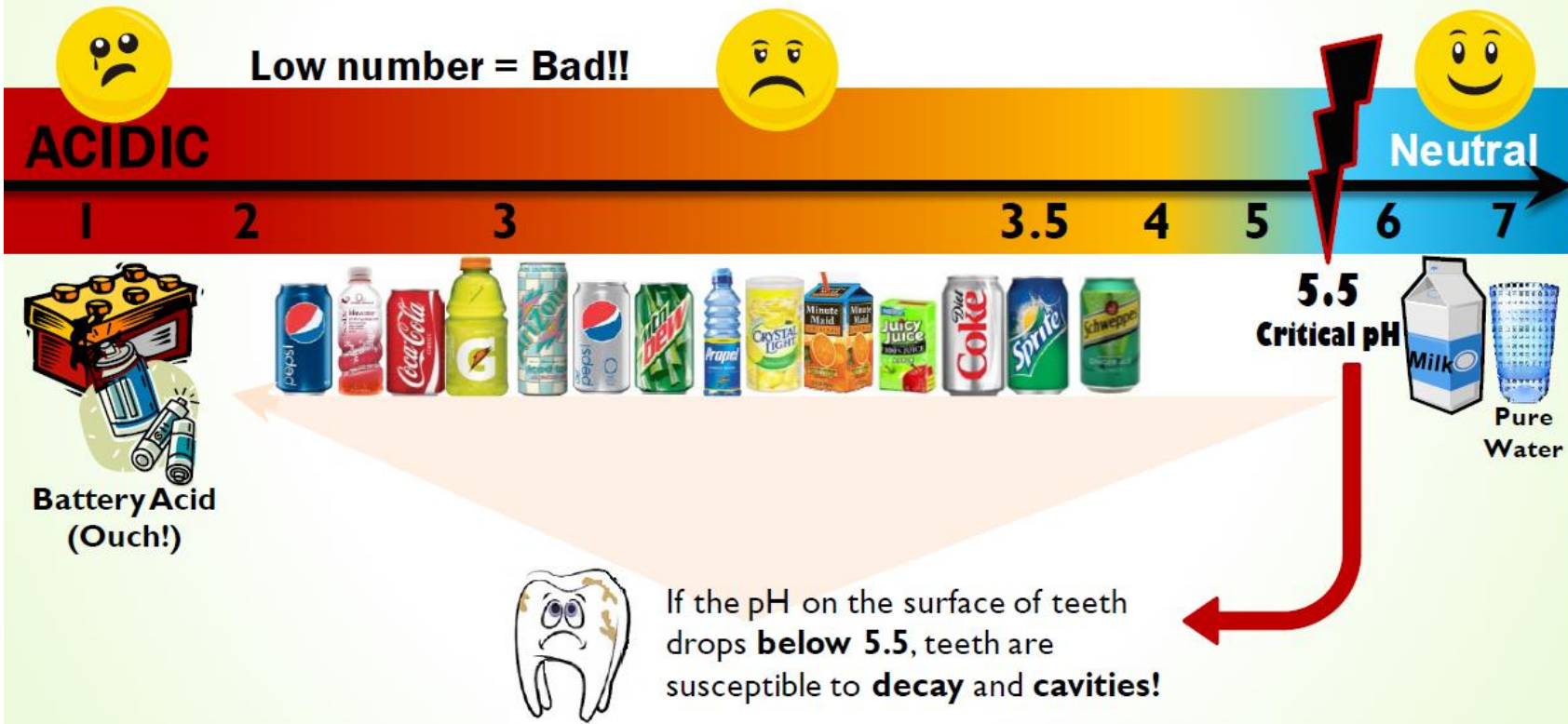


Source: Boston Children's Hospital: Risk-based disease prevention and management of Early Child Caries (ECC) flipchart



# SODA and JUICE = ACID

pH Scale – Measures the Amount of Acid





Even in 100% natural juice with no added sugar, there is still sugar because fruit naturally contains sugar. It is better to eat fresh fruit or drink water.



Source: Boston Children's Hospital: Risk-based disease prevention and management of Early Child Caries (ECC) flipchart





# Positive changes are being proposed

## Proposed Food Label Changes For Canada

**CURRENT**

Nutrition Facts Valeur nutritive	
Per 1/2 cup (125 mL) pour 1/2 tasse (125 mL)	
Amount Teneur	% Daily Value % valeur quotidienne
<b>Calories / Calories 80</b>	
<b>Fat / Lipides 0.5 g</b>	<b>1 %</b>
Saturated / saturés 0 g + Trans / trans 0 g	<b>0 %</b>
<b>Cholesterol / Cholestérol 0 mg</b>	
<b>Sodium / Sodium 0 mg</b>	<b>0 %</b>
<b>Carbohydrate / Glucides 18 g</b>	<b>6 %</b>
Fibre / Fibres 2 g	<b>8 %</b>
Sugars / Sucres 15 g	
<b>Protein / Protéines 3 g</b>	
Vitamin A / Vitamine A	2 %
Vitamin C / Vitamine C	10 %
Calcium / Calcium	0 %
Iron / Fer	2 %

→

**PROPOSED**

Nutrition Facts Valeur nutritive	
Per 1/2 cup (125 mL) pour 1/2 tasse (125 mL)	
Amount Teneur	% Daily Value* % valeur quotidienne
<b><u>Calories 80</u></b>	
<b>Fat / Lipides 0.5 g</b>	<b>1 %</b>
Saturated / saturés 0 g + Trans / trans 0 g	<b>0 %</b>
<b>Carbohydrate / Glucides 18 g</b>	
Fibre / Fibres 2 g	
Sugars / Sucres 15 g	<b>15 %</b>
<b>Protein / Protéines 3 g</b>	
<b>Cholesterol / Cholestérol 0 mg</b>	
<b>Sodium 0 mg</b>	<b>0 %</b>
<b>Potassium 200 mg</b>	<b>4 %</b>
<b>Calcium 0 mg</b>	<b>0 %</b>
<b>Iron / Fer 0.3 mg</b>	<b>2 %</b>
*5% or less is a little / 5% ou moins c'est peu 15% or more is a lot / 15% ou plus c'est beaucoup	

Increased size of Calories, with thick underline

Nutrients that provide Calories are listed below Calories

Sodium is moved down close to Potassium

Vitamin A and Vitamin C are removed; Potassium is added

Quick rule

Serving Size information increased

% Daily Value for Sugars is added

Amounts of Potassium, Calcium and Iron are shown

## Proposed Food Label Changes for New York & California

**WARNING: DRINKING BEVERAGES WITH ADDED SUGAR CONTRIBUTES TO TOOTH DECAY, OBESITY, AND DIABETES. THIS MESSAGE IS FROM THE BALTIMORE CITY HEALTH DEPARTMENT.**

*Source: Baltimore City Health Department*



# Gummy/Sticky Snacks in Grooves of Teeth



Chewy candy



Dried fruit



Serving: 2 Gummy Bears  
Sugar Per Serving: 3g



Gummy snacks and vitamins

10



# Here's how to prevent tooth decay







## 1. Remove the bacteria from the tooth surfaces

How? *Tooth brushing & flossing*

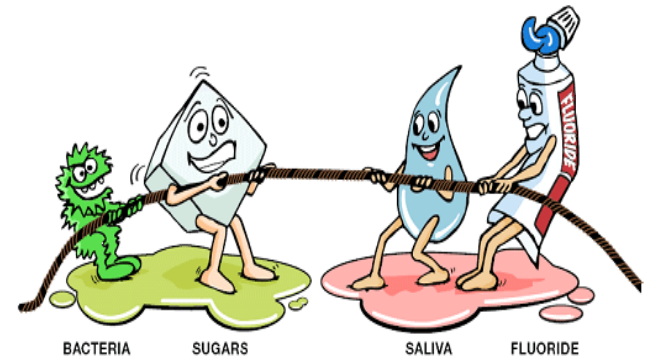
- Brush twice a day (morning and before bed)
- Clean between the teeth daily



## 2. Strengthen the outer surface of the tooth

How? *Fluoride*

- Fluoride toothpaste twice a day
- Fluoride mouthrinses and fluoride varnish as recommended by a dental professional





# Fluoride is safe and helps prevent tooth decay

First Nations Health Authority  
CHILDREN'S ORAL HEALTH INITIATIVE

## FLUORIDE

- \* is a mineral found naturally in fresh and salt water and some foods such as fish and tea
- \* makes the outer layer of the tooth stronger and less likely to develop cavities
- \* can stop and reverse cavities that are just starting
- \* helps prevent tooth decay and is safe

**FLUORIDE IS A SAFE AND EFFECTIVE WAY TO PREVENT TOOTH DECAY:**

- \* tooth decay (cavities) is the most chronic disease in North America
- \* 98% of Canadians have or have had cavities
- \* cavities cause pain and infection
- \* cavities are expensive to treat
- \* accessing dental treatment can be difficult for people living in rural and remote communities
- \* children who have cavities are more likely to continue to have cavities throughout their lives

**WE CAN PROTECT OUR TEETH BY USING:**

- \* water that contains fluoride
- \* fluoride toothpaste, fluoride varnish and fluoride mouthrinses

**DID YOU KNOW:** Having fluoride varnish applied to your child's teeth *regularly* (as recommended by a dental professional) prevents up to 45% of cavities

**CHILDREN ARE AT RISK FOR CAVITIES IF:**

- \* the water they drink doesn't contain fluoride
- \* they don't have their teeth brushed twice a day by an adult using a fluoride toothpaste
- \* they or other family members have previously had cavities or have poor daily oral hygiene
- \* they frequently eat foods or drink liquids that are high in sugar

August 2015





## Eggsperiment ~ a fun learning activity





# Choices of Toothpaste



**NO Fluoride Protection**



**Cavity Protection**

Source: Boston Children's Hospital: Risk-based disease prevention and management of Early Child Caries (ECC) flipchart





### 3. Don't feed the bacteria

*Limit the frequency of foods, snacks, treats and drinks that are high in sugar or sticky*





## Making decisions about eating...

### “Choose often” snacks:

- are like “mini meals”
- Provide part of our daily nutrient requirements (is nutrient dense)

### “Once in a while” snacks:

- Are usually low in nutrients, high in sugar and calories
- Are often cheaper than other more nutritious foods and drinks

### Advertising on labels may claim that the product:

- Is fun
- Makes you feel happier
- Healthy for children (make them stronger, taller, think better etc.)



**Often**

or

**Once in a while**



**Often**

**or**



**Once in a while**



Often

or



Once in a while



**Often**

or

**Once in a while**





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Once in a while



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**Often**

or

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Often

or



Once in a while



## 3 Important Considerations

1. **Retentive factor:** How sticky is it?
  - Stickier last longer = longer acid attack
2. **Frequency factor:** How often are you having it?
  - More often= more acid attacks/day
3. **Time of day factor:** When are you having it?
  - During evening = Less saliva in mouth = longer acid attack





# Practices to support individual and community oral health

1. Encourage women of childbearing age and pregnant women to have regular professional dental care
  - untreated oral infections can affect mom and baby's oral & overall health





## 2. Promote infant feeding practices that are safe for newly erupting teeth:

- breastfeeding is best
- put only breastmilk, formula or water in a baby's bottle
- hold baby while feeding
- remove the nipple (bottle or breast) from baby's mouth after active feeding is finished
- if baby is having a bottle in bed for comfort it should contain water only
- some babies need the comfort of a pacifier or soother





### 3. Encourage daily oral hygiene:

#### Before teeth erupt:

- wipe the cheeks and gums with a clean, damp cloth, fingerbrush or small, soft toothbrush once a day. This helps develop a daily habit of mouthcare





After the tooth first erupts:

- start cleaning the teeth twice a day using a rice grained amount of fluoride toothpaste on a soft, small toothbrush
- at age three, continue brushing twice a day and increase the amount of fluoride toothpaste to a pea sized amount



***Children cannot brush their teeth well enough to prevent tooth decay until they are 8 years old. Parents must brush for them!***





## 4. Lift the Lip:

- Teach parents to look for signs of early tooth decay
- Teach parents to move the upper lip out of the way when cleaning their child's teeth. The four upper teeth are hard to brush but this is where early childhood tooth decay begins.







## 5. Encourage families to limit sweet drinks and offer

- milk with meals
- water for thirst
- fruit instead of juice



## 6. Encourage healthy snacking

- cheese, yogurt, vegetables, fish, meats, whole grain breads and cereals, fruit and nuts





## 7. Encourage good daily oral hygiene and regular dental visits for family members

### - 2 for 2 is what you do!

- brush for 2 minutes twice a day with a fluoride toothpaste
- Clean between the teeth and under gums once a day
- Visit an **oral health professional** at least yearly for a check up, **oral cancer exam**, necessary treatment and cleaning



## 8. Encourage families to participate in COHI (Children's Oral Health Initiative) if it is available in your community

- COHI provides annual screenings, temporary fillings, sealants and 2 – 4 fluoride varnishes (as recommended by a dental professional) for children 0 – 7 years of age. These services are free and are proven to help prevent tooth decay.



## What are some of the Challenges?

- Not all children like to have their teeth brushed
- Parents, other family members or caregivers may have poor oral hygiene and might not model healthy oral care practices to children
- Food security or limited financial resources can mean that a parent/adult chooses pop or other sweet drinks instead of milk
- Community water supply may not be safe and bottled water is expensive



## What are some of the Challenges?

- Elders may want to give children snacks/foods that can be harmful to their teeth
- Adults may have dentures and feel that a visit to the dental clinic isn't important
- Past negative experiences with dental treatment may make adults fearful
- Older adults may believe that losing teeth is normal and expected
- What others can you think of?



# Family Strengths and Opportunities to Build Upon

## Parenting skills

- Sees oral care as an important part of child health. Brushing a child's teeth can be difficult but it is a necessary part of daily care
- Can set limits for their child about frequency of "treats"
- Makes healthy choices about what to serve at meal and snack times

## Cavity free checkups

- Provides positive reinforcement of good care
- Child begins to take responsibility for their health and wellness

## Set achievable goals

- Reinforce success
- Keep it simple





# Questions?





## Contacts

Today's presentation was an introduction to Oral health.

Want more information? Still have questions?

Email us with your name, email address and question/requests

# Thank you!

Carol Yakiwchuk, Oral Health Manager

[carol.yakiwchuk@fnha.ca](mailto:carol.yakiwchuk@fnha.ca)



## On line resources: FNHA COHI resources and more...

- <http://www.fnha.ca/what-we-do/maternal-child-and-family-health/childrens-oral-health-initiative>
- [www.brushdj.com/#nogo](http://www.brushdj.com/#nogo)
- [www.2min2x.org](http://www.2min2x.org)
- <http://oralb.com/en-us/product-collections/disney-magic-timer-app>
- <https://www.common sense media.org/app-reviews/toothsavers-brushing-game>
- <http://appcrawlr.com/ios-apps/best-apps-toothbrush-timer>
- <https://www.youtube.com/watch?v=OGcUSsbPsQQ>
- <https://www.youtube.com/watch?v=qCJxXsJkpW0>
- <https://www.youtube.com/watch?v=XHExQeY9FP8>
- <https://www.youtube.com/watch?v=wKrudVaEcMk>
- <https://www.youtube.com/watch?v=VFmkVlv1HOA>