Oral Health Care and It’s Impact on the Person’s Overall Well-Being

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Dr. Clive Friedman, D.D.S.

Dr. Friedman was born in Johannesburg and has trained and worked in South Africa, Israel, England, USA and Canada. He obtained his specialty in pediatric dentistry in New Orleans and has a special interest in persons with special needs, behavior, prevention, education and wellness. He teaches at both the University of Toronto and the Schulich School of Medicine and Dentistry. He has been president of the International Association of Disability, a member of the CDA committee for scientific and clinical affairs, and is special consultant to the Ontario Dental Association social services committee. He is also on the editorial board for the British Society for Disability and Oral Health Journal and is consultant to the Special Olympics Oral Health Program. Dr. Friedman has written many articles that have been published in dental and special needs journals internationally, and active clinical research in the office reflects his commitment to stay current. In creating his Pediatric Oral Health and Dentistry practice, Dr. Friedman has realized his vision to create a space and a team that is child friendly and promotes early intervention and dental care from infancy to young adults.

Karen Kirchhoff, MSPT

Karen Kirchhoff joined the IFOPA as Family Services Coordinator in October 2019. She runs the Ability Toolbox program working to empower people with FOP, support their families and caregivers and educate medical professionals to promote problem-solving and independence. Karen brings a range of experience to this role with more than 18 years in direct pediatric therapy, parent education and training, coordination of services and client case management. For most of her career, Karen worked as a physical therapist, family service coordinator and disability determination evaluator for infants and toddlers. Karen has a bachelor’s degree in education and a master’s degree in physical therapy from the University of Kansas. She enjoys helping individuals and families in a variety of settings and is excited to develop relationships in the FOP community to ensure more access to care and support.
Why is there a need for this webinar?

• Families have A LOT to deal with when it comes to FOP – why should oral health be a primary focus?
• IFOPA Family Gathering Ask-A-Dentist appointments showed many significant needs
Oral Health

- Diagnosis
  - ORo facial function
    - Breathing
    - Perception
    - Nutrition
    - Communication
Oral Health Impact on the Gut, Brain, and Immune System

• Oral health is the gateway to overall health
• What we put in our mouth affects the rest of the body
• Oral disease that is chronic and left untreated may weaken the immune system over time
• Inflammation in the mouth can lead to systemic inflammation
• **Good nutrition** and **probiotics** can alter the microbiome of the gut flora, increase alertness and the brain’s ability to function, and strengthen the immune system
Oral Health Impact on Breathing & Respiratory System

- **Posture**: head and neck posture with FOP can affect breathing
- **Nose breathing**: Nitric Oxide is released in the nasal canal when breathing in through the nose – this sterilizes the air and kills bacteria naturally as it passes through nasal canal.
- **Mouth breathing**: air is not sterilized when inhaled through mouth and bacteria could potentially reach tonsils, throat and lungs increasing risk of inflammation and infection.
- **Mouth breathing**: dries out oral mucosa allowing plaque to form on teeth increasing risk of cavities and gum disease.
- **Snoring and poor sleep.**
- **Tongue-Thrust swallow pattern**: if tongue thrusts forward to assist with swallowing, accessory muscles in the neck are activated; overusing accessory muscles to swallow might increase risk of inflammation and neck flare-ups.
Oral Health Impact on the Cardiovascular System

- Cardiovascular disease: although the connection is not fully understood, some research suggests that heart disease, clogged arteries and stroke might be linked to the inflammation and infections that oral bacteria can cause.
- Poor dental health increases the risk of a bacterial infection in the blood stream
Oral Health Impact on Communication

- **Ability:** the position of the tongue, as well as ankylosis of the jaw, can affect the ability to speak
- **Endurance:** overused tongue and neck muscles can lead to poor endurance and ability to only speak for short periods of time
- **Pain:** poor oral health can lead to ulcers and pain, limiting the desire to speak
Oral Health Impact on Self-Esteem and Quality of Life

- Poor oral health can negatively affect our self-esteem (perception we have of ourselves), make us shy away from smiling and cause us to avoid interacting with others.
- Perception others may have of us: drooling, open mouth posture, slurred speech, discoloration of teeth, missing teeth.
- Poor oxygen saturation, inflammation and pain from tooth decay and gum disease can interfere with participating in activities we desire.
- Ankylosis of the jaw impacts desire and enjoyment of foods, social events involving food.
Why we do oral hygiene...
**Biofilm** = the collection of bacteria in our mouth

- Biofilm is only able to produce the toxins that break down the tooth structure when it is ATTACHED to the tooth
Oral hygiene - disrupts the biofilm

• The act of brushing disrupts the biofilm on the tooth preventing it from creating the toxins that cause tooth breakdown
• Disruption of the biofilm is important but transient
• Biofilm is re-established within minutes
• Delivers Fluoride
• Frequent brushing – toothpaste shifts balance
• Flossing disrupts biofilm BETWEEN teeth and removes food debris; may also deliver residual paste between teeth
Infants to 3 years of age:

- Visit a dentist by 1 year of age at the latest.
- Clean gums with wet gauze after each breast or bottle feeding.
- Brush teeth without toothpaste or use a small amount (size of rice grain) of NON-fluoride toothpaste without sweeteners. Fluoride toothpaste only needed if living where water is not fluoridated or if recommended by a dentist.
- Brush 2 minutes, at least twice per day, and floss daily.
- Minimize soft sugary foods (yogurt, for example, may contain excess sugar).
- Fluoride varnish is suggested twice per year for children at high risk for oral disease.

*These are general preventative guidelines – always consult a dental professional for specific advice*
Infant gum care products

- Wet gauze
- Tooth and gum wipes
- Oral sponges

- Gauze Pads
- Dr. Brown’s Tooth & Gum Wipes
- Spiffies Baby Teething & Cleaning Wipes
- Babycolor Baby Oral Cleaner

*IFOPA does not endorse any particular dental product or tool – please consult with your dental professional for personal recommendations*
Infant/Toddler toothbrushes

Finger brushes
- Fridababy Finger Toothbrush

Special toothbrush designs
- Jordan Step 1 Baby Toothbrush
- Eccomum Infant Training Toothbrush

Full contact brushes
- Fridababy Toothhugger

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Infant toothpaste without fluoride

- Read labels and look for Xylitol
- Avoid sweeteners if possible

Spry Toothpaste
Fluoride-Free with Xylitol

Balm Baby Teeth Paste
Fluoride-Free with Xylitol

Dr. Ginger’s Fluoride-Free
Coconut Oil Toothpaste

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Children 3 to 5 years of age:

- If possible, visit a dental professional every 3 months.
- If your child is able to spit toothpaste without swallowing, start using a pea-sized amount of fluoride toothpaste.
- If your child still swallows some toothpaste, stick with a smaller amount of fluoride toothpaste (size of rice grain).
- Keep helping your child brush their teeth to make sure all teeth are properly cleaned.
- Brush 2 minutes, at least twice per day, and floss daily.
- Provide a low-sugar, healthy diet with crunchy snacks to strengthen gums.
- Fluoride varnish is suggested twice per year for children at high risk for oral disease.

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# Child toothpaste

1000 PPM of Fluoride (0.24% Sodium Fluoride NaF)

<table>
<thead>
<tr>
<th>Age</th>
<th>How much Fluoride should my toothpaste contain?</th>
<th>How much toothpaste to use?</th>
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<tbody>
<tr>
<td>Under 3</td>
<td>1,000 ppm</td>
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<tr>
<td>3 - 6 years</td>
<td>1,000 - 1,450 ppm</td>
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<tr>
<td>7+ years</td>
<td>1,450 ppm</td>
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Kid’s Crest 1000ppm Toothpaste

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Child toothbrushes

- Colorful, small heads: GUM Kids’ Monster Toothbrushes
- Easy grip handles: GripEazy Expand Toothbrush Aid
- Electric brush with timers: Brusheez Kid’s Electric Toothbrush Set

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Electric Toothbrush vs. Manual Toothbrush

• The right toothbrush is simply the brush that works best for you!
• Electric brushes need to be positioned on each tooth separately and may take longer to use than a manual toothbrush

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Child flossing aids

- Parents should help their child with flossing until they are completely successful on their own (usually around age 10 or 11)
- Floss should be rinsed with water after each tooth to prevent cross contamination

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Xylitol Sugar Substitute

- X-PUR Pastilles
- Spry Xylitol Gum
- PUR 100% Xylitol Chewing Gum
- Ice Chips Candies with Xylitol

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How well are you actually brushing your child’s teeth?

- These pink tablets are Red-Cote disclosing agents that, when chewed, help visualize dental plaque build up to improve toothbrushing and between-teeth cleaning techniques.
- Not needed on regular basis but good as a teaching tool for children to visually see plaque

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Children 5 years and older:

- If possible, visit a dental professional every 3 months.
- As long as your child can spit, start using a pea-sized amount of standard fluoride (1000 ppm) toothpaste. If your child is at risk for oral disease, a dental professional may recommend high-dose fluoride toothpaste (5000 ppm).
- Keep helping your child brush their teeth until around age 6 to 7 years of age to make sure all teeth are properly cleaned.
- Brush 2 minutes, at least twice per day and floss daily. Most children need help to floss effectively until 10 or 11 years of age. If using floss aids, clean them in between use on each individual tooth to avoid mouth contamination.
- Provide a low-sugar, healthy diet with crunchy snacks to strengthen gums.
- Fluoride varnish is suggested twice per year for children at high risk for oral disease.

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Children 5 years and older fluoride rinses

- Normal-dose rinses are not necessarily needed after brushing if a child is thoroughly brushing correctly and flossing daily. Do not rinse with water after expectorating.
- High-dose rinses will be prescribed by your dental professional if needed.

0.05% Sodium Fluoride (normal-dose)

- ACT Kid’s Fluoride Rinse
- Tom’s Natural Fluoride Rinse, Alcohol-Free
- CariFree CTx3 Fluoride Rinse
- Hello Kitty Fun Pump Rinse
- Colgate Ortho Defense Phos Flur Rinse

High-dose rinses

- GUM Paroex Plaque Control Rinse
- Peridex Oral Rinse, Chlorhexidine Gluconate
- Povidone Iodine Betadine

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Children 5 years and older high-dose fluoride toothpaste

- These toothpastes are by prescription only and will be recommended by your dental professional if needed.

5000 PPM of Fluoride (1.1% Sodium Fluoride NaF)

Clinpro 5000ppm Fluoride Toothpaste  X-PUR 1.1% NaF Gel  PreviDent 5000 Plus Toothpaste

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Children 5 years and older flossing aids

floss picks
- Plackers

interdental brushes
- GUM Soft Picks
- Piksters Kink Interdental Brushes

**tongue cleaners**
- Stainless Tongue Scraper

**water and air picks**
- Cordless Water Flosser
- Electric Air Flosser

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Adults with Ankylosis of the Jaw:

- If possible, visit a dental professional every 3 months.
- Continue brushing the cheek-side surfaces of the teeth that you are able to reach. Some individuals with FOP are able to fit a child-sized toothbrush into jaw space or gaps from overbites to still brush tongue-side surfaces of the teeth. Use a pea-sized amount of standard fluoride (1000 ppm) toothpaste. If you are at risk for oral disease, a dental professional may recommend high-dose fluoride toothpaste (5000 ppm).
- Brush 2 minutes, at least twice per day and floss daily. Floss aids will be necessary to dislodge food from in between teeth and to help clean hard to reach areas. Be sure to clean floss aids in between use on each individual tooth to avoid mouth contamination. *note: water flossing does not disrupt the biofilm on the teeth and therefore is not a replacement for brushing*
- Fluoride rinses are necessary to clean the tongue and lingual-side (tongue-side) of the teeth when the jaw is fixed closed. Your dental professional may recommend a high-dose fluoride rinse if you are at risk for oral disease or are developing cavities and/or lesions

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Specialty brushes for ankylosis of the jaw

TePe Compact Tuft brush – small head size may allow it to pass through a small jaw opening and still reach the lingual-side of teeth for cleaning.

TePe Interspace Soft brush – angled head with replaceable bush tips that attach to either side of the handle to change the angle for cleaning between teeth and hard to reach areas.

TePe Universal Care brush – unique angle that might enable access to hard-to-reach areas of the teeth. Bristle length can be cut shorter to reduce profile.

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Flossing aids for ankylosis of the jaw

Compact and angled-handle interdental brushes
- TePe Original Interdental Brushes
- Tepe Angle Interdental Brushes

Water and air picks
- Cordless Water Flosser
- Electric Air Flosser

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High-dose fluoride products when jaw is ankylosed

High-Dose Rinses
Again, high-dose rinses will be prescribed by your dental professional with instructions on how to use based on your specific needs.

- GUM Paroex Plaque Control Rinse
- Peridex Oral Rinse, Clorhexidine Gluconate
- Bexident Tooth and Gum Gel

Tooth mousse/MI Paste
These products will be prescribed by your dental professional if needed. Used when mouth is dry to increase mouth saturation, discourage bacteria sticking to tooth surface, and to help increase mineralization of the enamel.

- GC Tooth Mousse
- GC MI Paste

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Adapted oral hygiene tools for mobility restrictions

- Grip tubes & silicone straps
  - VIVE Foam Tubing
  - EazyHold Adaptive Aid

- Hemostat scissors
  - Hemostat 12-inch

- Giraffe tool
  - Giraffe Extension Tool

- Homemade dowel rod

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Dental office intervention *plus* preventative care at home

- Topical fluoride (gels and foams)
- Fluoride varnish
- Anti-microbial Therapy
  - *Prevora*
  - *Cervitec*
  - *Povidone*
- Oral Hygiene & Patient Motivation
- Diet Counseling
- Ongoing Monitoring

- Toothpastes /Topical Applications
  - *Clinpro 5000 Toothpaste*
  - *ProArgin in Colgate*
  - *MI Paste*
  - *Novamin*
  - *SHEC Povidone*
- Mouthwashes
  - *Peridex & Tricolsan products*
- Sugar Substitutes:
  - *Xylitol & Novamin*
- Gums & Mints
  - *Xylitol & Recaldent*
COVID Oral Health and Cleaning your Dental Tools

**What measures can you take to protect yourself from Coronavirus (COVID-19)?**

1. Wash your hands frequently with soap and water or hand sanitizers.
2. Avoid touching your eyes, nose, and mouth.
3. When coughing or sneezing, cover your mouth and nose with your elbow bent.
4. Use disposable tissues and throw them away after use.
5. If you have fever and respiratory symptoms, avoid close contact with others and call the emergency helpline.
6. Practice strict oral hygiene measures, by brushing and rinsing 2-3 times a day, and by changing your toothbrush after any infection.

**Oral hygiene preventive measures and products recommended by Dentaid**

- Brushing:
  - Interproximal hygiene and tongue cleaning
  - Open mouth spaces: Interproximal brushes
  - Closed mouth spaces: Wireened floss and tapes
  - All space types: Microbrushes and irrigator

- Toothpaste:
  - Antimicrobial agents
  - Fluorides

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Cleaning of your Dental Tools

- Rinse your toothbrush with water after EACH USE.
- Rinse your floss and flossing aids in water after using between EACH tooth to avoid cross contamination.
- Sanitize your toothbrush at least once per week and after a cold or infection (or consider replacing after a cold or infection).
- Replace your toothbrush every three months or sooner if bristles are splayed or worn or you have a severe cold/infection.

Fill a small cup with enough 3% hydrogen peroxide to cover the toothbrush bristles. Place the toothbrush with the bristles down inside the cup, and soak at least 5 minutes. Rinse and store brush standing upright to allow the brush to dry.
Webinar Questions?

- How long should I brush for?
- Should a person with FOP have their teeth cleaned by a hygienist? If so, how often?
- What do you recommend to clean behind the teeth that has plaque buildup when jaw mobility is restricted?
- Does FOP cause teeth to move? How does orthodontics impact flares?
- When my jaw is fused, should I have extractions?
- Should I have my wisdom teeth removed?
- What is your best advice for a dentist treating someone with FOP?
- If my teeth have been sealed should they be resealed when I am older?