

Oral Health Practices for Persons with Intellectual/ Developmental Disabilities

Theresa Brennan RDH, BS Health Education
Tufts Dental Facilities
Tufts Community Dental Program

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Speaker Introduction



Theresa Brennan RDH, BS Health Education is a dental hygienist with over 34 years of experience working with people who have intellectual disabilities. She divides her time managing a portable dental program for at risk children in Head Start and School Programs and working as a clinical hygienist for Tufts Dental Facilities.



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Today's Agenda

- Oral health problems associated with persons who have an intellectual/developmental disability
- Signs and Symptoms of Dental Disease
- Risk Factors
- Barriers to Care
- Intervention and Prevention Strategies
- Case Study
- Questions



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The Oral Health Problem



People with Intellectual/Developmental Disabilities are more likely to have poor oral hygiene, periodontal disease and untreated dental caries than are members of the general population.*

*Morgan, J.P. et al (2012) The Oral health status of 4,732 adults with intellectual and developmental disabilities JADA, 143(8), 838-846

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The Oral Health Problem



- Electronic dental records for 4,732 adults with ID/DD
- Dental visit at a Tufts Dental Facility in Massachusetts
- Between April 2009 and March 2010 were analyzed



The Oral Health Problem

- 87% of participants had caries experience (cavities)
- 32% had untreated dental caries (cavities)
- 80% had periodontitis (gum disease)
- 11% had edentulism (missing teeth)



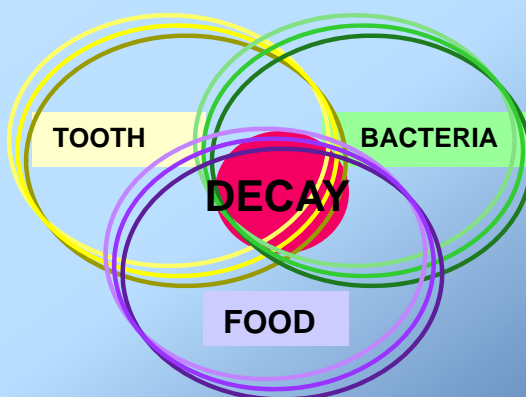
The Oral Health Problem



Adults with Intellectual Disabilities remain vulnerable to dental diseases, despite access to comprehensive dental services.



Oral Health Problem: Tooth Decay



Occlusal Dental Decay (On the chewing surface)



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Interproximal Decay (Between the Teeth)



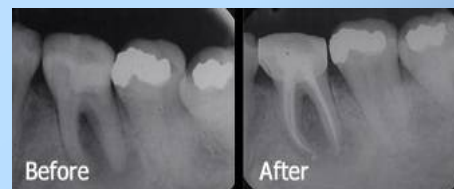
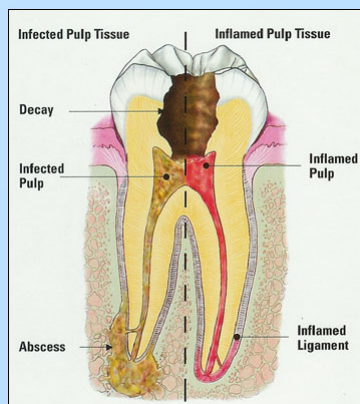
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Cervical Dental Decay (Along the gum line)



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Root Canal Therapy



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Dental Abscess



Oral Health Problem: Gum Disease



Healthy Gum Tissue

- Healthy gums are pale pink in color.
- They lay flat against the teeth.
- They fill the space between the teeth.
- They do not bleed when brushed.



Gingivitis (Gum Inflammation)

- Unhealthy gums are red in color.
- They do not lay flat against the teeth.
- They will bleed when brushed.
- Bacterial plaque is visible on the tooth surface.



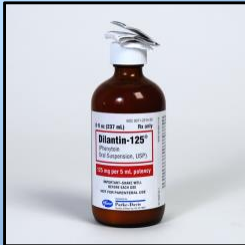
Gingivitis risk factors

- Diabetes
- Smoking
- Aging
- Genetic predisposition
- Systemic diseases and conditions
- Stress
- Inadequate nutrition
- Certain medication use

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Dilantin Hyperplasia (Overgrowth of the Gums)

Poor
Oral Hygiene +  =

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Dilantin Hyperplasia



Periodontal Disease (Gum Disease)

- Gums are red/purplish in color.
- They are not firmly attached to the teeth.
- They bleed when brushed.
- Teeth become loose.



Gum Disease and Down Syndrome



- Periodontal disease (Gum Disease) is the most significant oral health problem in people with Down Syndrome
- Loss of front teeth in early teens

Contributing Factors

- Poor oral hygiene
- Poor tooth alignment
- Grinding
- Abnormal host response because of a compromised immune system



Signs of Mouth Pain

- Ear- rubbing
- Head banging
- Face striking
- Disturbed sleeping and eating patterns
- Gum rubbing
- Drooling
- Biting or chewing
- General unhappiness or irritability



Risk Factors



Cognitive Impairment

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Physical limitations: Adaptive Aids



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Behavioral Considerations



0	Patient did not enter clinic
1	Sat in chair, didn't allow exam
2	Allows brushing or visual exam
3	Allows instruments with assistance
4	Allows procedures with assistance > 50%
5	Allows procedures with assistance <50%
6	Allows procedures without assistance

* Developed by clinicians at Tufts Dental Facilities

Behavioral Considerations

Appointment Evaluation

Dental Decay:	No
Oral Hygiene Assessment:	Fair (moderate plaque / tartar)
Behavioral Assessment:	Allows instruments with assistance
Findings:	No Change
Comments:	
Premedication:	No Dental Premed Required
Effectiveness:	
Provider Comments:	Needs help brushing along the gumline Continue to brush even when gums bleed Do not brush until bedtime (Fluoride)

Strategies for a good dental visit

Before the Dental Visit

- Dental visit history
- Use pictures/dental equipment to familiarize the individual
- Schedule appointment to a time that best suits individual
- Communicate with office staff
- Provider continuity
- Control environmental stimulus

During the Dental Visit

- Bring comfort items from home
- Verbal reassurances
- Accompany individual into operatory
- Modeling
- Allow extra time
- Clearly explain the procedures
- Consider sedation prior to appointment

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Barriers to Care



Finances



Consent for treatment



Fear and Apathy



- Negative past dental experiences
- Afraid that there will be pain involved
- Medically compromised



Lack of Providers



Intervention and Prevention Strategies



Prevention

- Toothbrushing
- Flossing
- Chlorhexidine Therapy
- Fluoride Therapy
- Routine Dental Care



Prevention: Practicing good homecare



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Toothbrushing Dress code

- Mask
- Gloves
- Eyewear



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Location

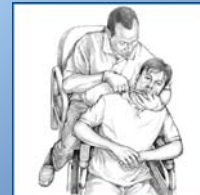


- In front of the television
- In bed
- In the shower
- In the kitchen
- Dry brushing is acceptable

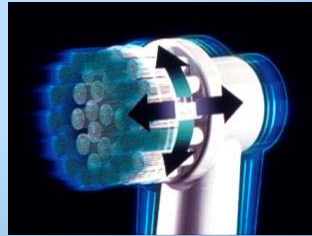


Brushing Approaches- Positioning

- Good lighting
- Stand behind person
- Lean against a wall for support
- Gently hold the person's head against your body



Toothbrush Choices



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Hard or Soft Toothbrush?



Toothbrush Abrasion



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Change your Toothbrush!



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Technique

Basic Brushing Techniques:



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Toothbrushing Task Analysis

NAME: _____

MONTH: _____

KEY
 I=Independent
 A=Assistance
 N/A=Not Applicable

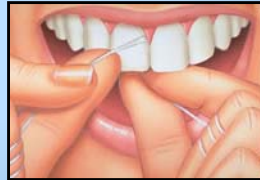
DATE														
1. Get out toothbrush and toothpaste														
2. Wet toothbrush and apply toothpaste														
3. Brush the OUTSIDE surfaces of the UPPER teeth														
4. Brush the CHEWING surfaces of the UPPER teeth														
5. Brush the INSIDE surfaces of the UPPER teeth														
6. Brush the OUTSIDE surfaces of the LOWER teeth														
7. Brush the CHEWING surfaces of the LOWER teeth														
8. Brush the INSIDE surfaces of the LOWER teeth														
9. Brush the tongue using small strokes														
10. Rinse mouth														
11. Rinse toothbrush														

Disclosing Solution



Prevention: Flossing

- Wrap 18" of floss between index fingers
- Gently slide floss between the teeth in a back and forth motion
- Wrap around each tooth



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Prevention: Fluoride Therapy



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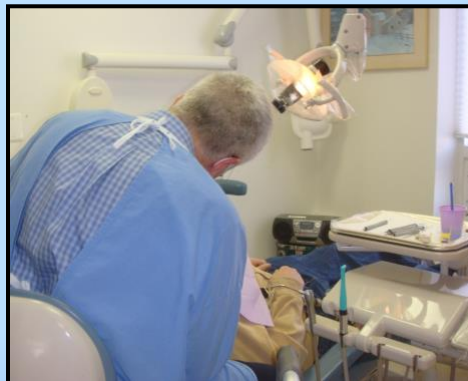
Prevention: Chlorhexidine Therapy



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Prevention: Routine Dental Care

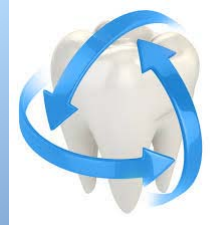


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Intervention Strategies

- Understand risk factors for oral disease
- Eat a healthy diet
- Maintain a healthy lifestyle



Risk Factors for Oral Disease

- Dependence on others for oral care
- Tobacco use
- Mouth breathing
- Dry mouth
- Certain medications
- Age
- Self-Abusive Behaviors



Self-Abusive Behaviors

- Rumination: regurgitation, re-chewing, or re-swallowing food
- Pica: Eating non-edibles
- SIB: Self-injurious behaviors



Intervention: Limit Sugar Intake



Intervention: Limit Sugar Intake



Intervention: Limit sugar intake



Sugar Intake = Dental Decay



+



+



Amount of sugar + Stickiness + Timing of meals
of food

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Sugar Facts: 4 Grams = 1 Teaspoon Sugar

Nutrition Facts	
Serving Size 1 can (354 mL)	
Amount Per Serving	
Calories	170
	% Daily Value*
Total Fat 0g	0%
Sodium 10mg	0%
Total Carb 46g	15%
Sugars 46g	
Protein 0g	0%
*Percent Daily Values are based on a 2000 calorie diet.	
INGREDIENTS: FILTERED CARBONATED WATER, REAL SUGAR, NATURAL CREAM FLAVOR, CITRIC ACID, CARAMEL COLOR (FROM FRUCTOSE).	

- Find # grams of sugar listed on label
- Divide by 4
- This number equals the # of teaspoons of sugar per serving

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Hidden Sugars



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Hidden Sugars



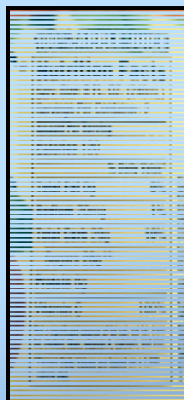
Nutrition Facts	
Serving Size 1 container	
Amount Per Serving	
Calories 170	Calories from Fat 15
	% Daily Value
Total Fat 1.5g	3%
Saturated Fat 1g	2%
Trans Fat 0g	0%
Cholesterol 10mg	2%
Sodium 80mg	2%
Potassium 260mg	7%
Total Carbohydrate 33g	11%
Sugars 27g	11%
Protein 5g	
Vitamin A 15%	Calcium 20%
Vitamin D 20%	Phosphorus 15%



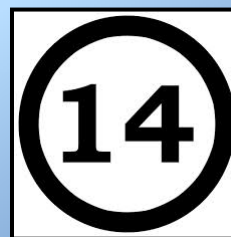
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Hidden Sugars



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Serving Size



Nutrition Facts

Serving Size 1 cup (228g)
 Servings Per Container 2

Amount Per Serving		Calories from Fat 0
		% Daily Value*
Total Fat	0g	0%
Saturated Fat	0g	0%
Trans Fat	0g	
Cholesterol	0mg	0%
Sodium	20mg	1%
Potassium	460g	13%
Total Carbohydrate	41g	14%
Dietary Fiber	3g	12%
Soluble Fiber	0g	
Insoluble Fiber	1g	
Sugars	33g	
Sugar Alcohol	0g	
Other Carbohydrate	4g	
Protein	1g	
Vitamin A	0%	Vitamin C 100%
Calcium	8%	Iron 6%
Riboflavin	2%	Magnesium 8%
Copper	2%	

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Serving Size



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First Ingredient on the Label



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Sugary Snacks as Rewards



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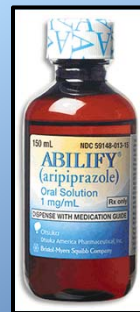
Alternative Food Choices



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Intervention: Sugary Medications

- 15 grams of sugar in one dose!
- Rinse with water
- Drink more water
- Take medicine prior to brushing
- Look for sugar free medications when available



Case Study

- 32 year old male named Roger
- Cerebral palsy
- Seizure Disorder
- Takes Dilantin for seizures
- Has not seen a dentist for over a year



Clinical Findings



- Fractured front tooth that is beginning to discolor
- Gingival hyperplasia (Gum overgrowth)
- Lost fillings
- Broken clasp on lower partial denture but wears it anyway



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Oral Hygiene Habits



- Brushes independently once a day with Crest toothpaste
- Uses a hard toothbrush
- Uses a denture brush on lower partial denture when he remembers to take it out



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24 Hour Diet Recall

BREAKFAST 1 cup coffee with cream and 4 teaspoons sugar 2 scrambled eggs 2 toast with jelly 8 oz. apple juice	DINNER 2 cups beef stew 1 dinner roll 1 cup milk 2% 1 cup Jell-O
LUNCH 2 cups micro waved macaroni and cheese 1 cup granola 1 (16 oz. bottle) Vitamin Water 1 cup mixed fruit in light syrup	SNACKS 2 Cheese Danish 3 cups microwave popcorn 3 (6 oz.) servings Yoplait yogurt 2 cups coffee with cream and 4 teaspoons sugar

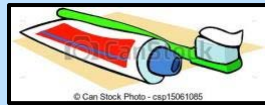


Intervention and Prevention

- Routine dental appointments and cleanings
- Educate staff and Roger about the side effects of Dilantin and poor oral hygiene = gum overgrowth
- Possible root canal therapy on front tooth
- Replace lost fillings
- Replace broken partial denture



Homecare



- Help Roger brush 2-3 times daily targeting the gumline with a fluoridated toothpaste
- Floss once a day



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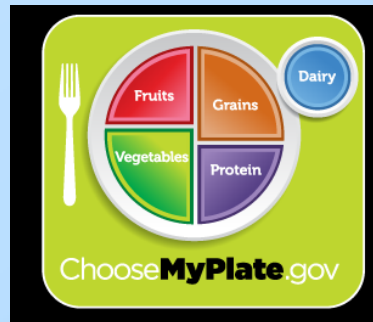
Denture/Partial Care



- Line a sink with wet paper towels or fill the sink with warm water.
- Remove the denture and place it in the palm of your hand.
- Gently hold the denture over the sink and brush all parts of the denture.
- Turn the denture around and brush the inside too!
- Rinse the denture with cool water.
- Brush gums and tongue using a small soft toothbrush.

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Diet Considerations



Important facts to remember:



- Build tooth brushing into a consistent, daily routine.
- Be methodical so you don't miss any teeth.
- Routine dental care – TDF recommends 4 cleanings a year.
- Limit sugar intake to avoid dental decay.

Questions?



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