Down Syndrome

- Medical risks:
  - Endocarditis, congenital heart disease
  - Increased risk of leukemia
  - Hepatitis
  - Alzheimer’s disease
  - Obesity
  - Atlanto-axial instability
  - Immunological impairment
  - Frequent URI

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Down Syndrome Dental Problems

- Lower decay rate than the general population
- Higher prevalence of periodontal disease
  - Oral hygiene
  - Mouth breathing, xerostomia
  - Severe, early onset (incidence 90–95%)
  - Ligamentous laxity
  - ANUG

- Class III malocclusion
  - Midface underdevelopment
  - Microdontia, oligodontia
  - Delayed eruption
  - Impaction
  - Taurodontism, short roots
  - Macroglossia (11–60%), fissured tongue, OSA, tongue thrusting
  - Submucous cleft palate

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Down Syndrome:
Radiograph showing extensive periodontal disease, caries and abscess.
Down Syndrome: Note periodontal disease, malocclusion and malpositioned teeth and macroglossia

Down Syndrome Dental Management Strategies

- Routine care recommended, focus on prevention, OHI, diet counseling, increased recalls
- Extensive restorative and prosthetics may again be contraindicated
- Partial glossectomy, adenotonsillectomy
- Early orthodontic intervention
- Early and aggressive periodontal therapy
  - Local antibiotic therapy, topical antimicrobial agents
- Verification of cardiac status and neck stability

Schizophrenia- a high risk group for dental disease

- Thomas et al., 1996, Friedlander et al., 1986
- Lack of grooming-poor oral hygiene
- Antipsychotic meds are anticholinergic and block parasympathetic responses- cause hyposalivation
- Alcohol abuse also contributes to xerostomia, can increase risk of oral cancer
- Tardive dyskinesia- involuntary rhythmic movements of tongue, face, mouth and jaws, trismus, swallowing
  - Inefficiencies occurs in about 25% of those on antipsychotic meds for over 3 months
    - May make proloning care more difficult
    - May make prosthetic treatment difficult
- Hypochondriac delusions centered around the mouth are common, e.g. “there are worms in my mouth,” “there are voices in my fillings.”
Schizophrenia

- Dental management and treatment planning:
  - no specific contraindications except what patient can tolerate
  - aesthetic and functional considerations may or may not assist in improving mental health
  - Xerostomia, dental caries, periodontal disease
  - Mucositis, candidiasis
  - masticatory limitations
  - dental attrition, self-mutilation, consider oral appliance
  - drug interaction risks

Schizophrenia- dental treatment recommendations

- Dentist should consult psychiatrist to discuss patient
  - Current status and stability
  - Medications
  - Ability to sign consent or make treatment planning decisions
  - Substance abuse concerns
  - Side effects of medications on cardiovascular system (tachycardia, postural hypotension), hemopoietic system
  - Adverse reactions with planned medications
  - Preventive oral hygiene education, including diet, fluoride

TBI: Often use of a mouthguard will prevent oral trauma such as noted on ventral tongue but be sure to attach to external location or clothing to prevent airway obstruction.
The dental health of people with disabilities is often poor, due to poor home care, oral habits, medications, and access issues.
If the person you're helping is in a wheelchair, sit behind it. Lock the wheels, then tilt the chair into your lap.

If the person is in a wheelchair, place a small pillow behind the head and the caregivers abdomen. Have the patient tilt their head back.

If the person you're helping is in a wheelchair, sit behind it. Lock the wheels, then tilt the chair into your lap.

What are 'modifications'?

- Behavior modification/TLC
- Protective stabilization
- Nitrous oxide analgesia
- Oral sedation
- IV sedation
- General anesthesia

Increasing cost, expertise, staffing
Spectrum of Behavior Management Approaches

- Behavior modification/TLC
- Protective stabilization
- Nitrous oxide analgesia
- Oral sedation
- IV sedation
- General anesthesia

Cooperation Level Scale

- Scale developed by John H. Tylor University of Iowa Dental Facilities Serving Persons with Special Needs, Des Moines

- Does not enter clinic, dental chair or both
- Sits in dental chair only
- Allows brushing of teeth, visual examination or both
- Allows dental examination and practitioner to place dental instruments intraorally; requires behavioral assistance from caregiver, dental assistant or both
- Allows dental procedures; requires behavioral assistance from caregiver, dental assistant or both more than 50 percent of time
- Allows dental procedures; requires behavioral assistance from caregiver, dental assistant or both less than 50 percent of time
- Allows dental procedures, needs no assistance

Behavior Modification/TLC

CASE SELECTION
- Works best for those with mild/moderate mental impairment
- Tell/show/do
- Reward/Praise with positive reinforcement
- Provide structure and specific instructions

PROCESS
- Caring and relaxed environment
- Empathy for the patient
- Involvement of family, caregivers
- Select appropriate time of day
- Select appropriate length of appointment
- Select appropriate procedures
- Begin with behavior modification
Desensitization

• May be required
• Begin with gentle touch of extremities
• Proceed to facial touch
• Massage and stretching of facial muscles
• May use at place of residence first
• Consistent repetition
• How about singing—works with patients with dementia
  *Perceived to be acceptable strategies for care

Controversy and Clarity

**Public Perception**
• General behavior restraints
• Psychological impact
  • Provide sense of security
  • Mechanical are less stressful than physical restraints
• Education can allay these stereotypes

**Standard of Care**
A written philosophy of using the least restrictive method
• Criteria for selection
• Consent requirements
• Monitoring
• Documentation
• Staff training
• Infection control

Types of Stabilization

**Physical**
Head holds, hand guarding, therapeutic holds

**Mechanical**

**Positioning Devices**
Types of Stabilization

Physical

Mechanical

- Mouth prop, bite block, tongue blade, papoose board, sheet, towel, strap, seat belt, wrist bracelet, vest

Positioning Devices

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Specialized Care Co. Inc.

How to Use the Open Wide Mouth Rest

1. Open the mouth wide with the fingers being left and right.
2. Turn the mouth wide open so the black teeth are positioned on the ridge.
3. Brush the teeth on the opposite side of the mouth first, then move to brush the other side.

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Papoose Board

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Types of Stabilization

Physical

Mechanical

Positioning Devices
- Wheelchair head support
- Bean bag
- Vac-pac
- Pillow
- Sandbag

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Vac-Pac®

Size 23
18 x 20 in.
(45.7 x 50.8 cm)

Size 20
20.7 x 23.5 in.
(52.6 x 60.2 cm)

Size 6
30 x 35.5 in.
(76.2 x 90.2 cm)

Size 0
34 x 39.5 in.
(86.4 x 100.3 cm)