

# **Treating The Patient With Autism In The Orthodontic Practice: Never Say Never**

Autism One Conference  
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## **Overview**

- Oral Health And The Autistic Patient
- The Autistic Patient - Orthodontic Concerns
- Access To Care
- Resources
- The New Patient Exam
- The First Orthodontic Visit
- Behavioral Management Ideas
- Adaptive Techniques
- Orthodontic Challenges
- Case Presentations

## **Oral Health And The Autistic Patient**

Oral health starts in childhood. According to former Surgeon General C. Everett Koop M.D.,  
“You are not healthy without good oral health.”

Straight teeth, oral health and systemic health are directly related.

Crooked teeth impact:

- Speech/Communication
- Self-esteem
- Nutrition
- Periodontal disease - associations (not cause and effect): cardiovascular disease, stroke, diabetes

## **The Autistic Patient - Orthodontic Concerns**

- Malocclusions (bad bites)
- Higher percentage of missing teeth, diastemas, anterior crossbites, open bites and Class II malocclusion
- Developmental defects from high fever or medications
  - Under-mineralized enamel
  - Decayed enamel
- Poor motor coordination
  - Inability to naturally cleanse the tongue
  - Excessive drooling
  - Inability to brush/floss around the teeth or braces
  - Oral trauma
- Habits
  - Mouth breathing (dry's up the saliva causing swelling and redness of the gums)
  - Pocketing food in the cheeks (choking hazard, can cause decay of teeth)
- Special diets and medications
  - Pureed foods
  - Sweetened medications (contribute to tooth decay)
  - Anti-seizure medications (contribute to gingival overgrowth and interferes with orthodontic tooth movement)
  - Sedative drugs (may reduce flow of saliva that protects the teeth)

## **Access To Care**

The Americans With Disabilities Act prohibits discrimination against a person with a disability who is seeking access to dental services. Title 3 of the law requires dentists to serve persons with disabilities.

There are several problems with access to oral health care:

1. Lack of adequate training in school
  - In 2004, The Commission of Dental Accreditation (CODA) adopted new standards for education programs to ensure didactic and clinical opportunities to better prepare dental professionals when treating patients with special needs.
2. Cost
  - Inadequate compensation for the clinician
  - Extra time for treatment
  - Extensive paperwork
3. Modifying treatment modalities
  - Severe disabilities may require treatment in a hospital or surgical center
  - Office protocol adjustments
  - Knowledge of specialized techniques and equipment

## **Resources**

- Google - Special Needs Orthodontist
- Illinois Society of Orthodontics (State Society)
- Midwest Society of Orthodontists (Regional Society)
- American Association of Orthodontists (National Society)
- Call 1-800-787-2444 or  
[www.braces.org](http://www.braces.org)

## **The New Patient Exam**

- Thorough review of the medical/dental history
- Behavior management problems?
- Oral motor sensory issues? – May be unable to tolerate certain appliances in the mouth
- Gross motor problems?
- Fine motor problems?
  - Unable to brush thoroughly around braces or appliances
  - Unable to hook up rubber bands, headgear
  - Unable to properly place retainers in the mouth
- Speech problems?
  - Speech therapy
  - Will the orthodontic appliances interfere with speech therapy
- Airway: Tonsils and adenoids present?
  - Tonsils enlarged
- Hypo vs Hypertonic muscle tone?
- Sensory Issues?
  - Stimulants: Smells, sounds, lights, touch...
- Chronologic vs cognitive age
- Social interactions (open bay vs private treatment rooms)
- Parental Interactions

## **Behavioral Management Ideas**

### Pre-visit

- Pictures taken of office, doctor and staff to familiarize the patient with the office

### Initial visit

- Office tour
- Introduction to doctor and staff

### Second visit

- Photos, panorex, exam

### Scheduling Appointments

- Are certain appointments scheduled for longer periods of time?
- Are appointments scheduled during non-busy hours?
- Are longer appointments divided into several shorter appointments?

### Emotional Regulation

- Small setting (private vs non-private rooms)
- Reduce excessive noise
- Reduce exposure to tactile inputs
- Minimize distractions

### Therapeutic alliances:

- Medical Professionals (physician, psychiatrist)
- Dental Professionals (dentist, orthodontist, periodontist, oral surgeon)
- Orthodontic Staff
- Parent
- Occupational/Speech Therapists, School teacher and Aide

#### Rehearsal/Practice:

Impression taking  
Toothbrushing  
Retainer wear

## **The Orthodontic Office**

- Positive reinforcers (“Bribes”)
- Contests and giveaways

Do these things encourage positive behavior or are they overstimulating to the patient?

**Make Treatment Fun !!! Cool Colored Expanders, Retainers and Braces**

**Is The Office Environment The Right Fit For The Patient?**

## Adaptive Techniques

- “First/Then” concept – Bribes
- Descriptive photo cards
- The show/tell method
- Parental assistance: The human bear hug
- Papoose board, velcro restraints
- Bands vs brackets
- Fuji cement
- Mouth props
- Medications
- Nitrous oxide – unsafe for autistic children? Methylation problem, mitochondrial dysfunction, detoxification problems
  - Ref: Rankin, Sym CRNA, “Anesthesia The Autistic Child,” The Autism File [www.autismfile.com](http://www.autismfile.com), Issue 33 2009; 14 – 18.
  - Ref: Baum VC, “When nitrous oxide is no laughing matter: nitrous oxide and pediatric anesthesia,” Pediatric Anesthesia, Sept. 2007; 17 (9):824 – 30.
- Sedation
- Out patient surgery (O.R.) procedures
  - Hospital gown
- Sonicare For Kids Toothbrush
  - Two Kid-friendly Power Modes Provide gentle cleaning appropriate for different ages: *low mode* for 4+ and high mode for 7+.
  - Safe and Gentle Sonicare For Kids is proven safe and gentle on teeth and gingival tissue for children ages 4+.
  - Kid Timer Helps kids reach the recommended two-minute brushing time by progressively increasing time over 90 days.
  - Two Brush Head Sizes Specifically designed to gently clean teeth at key developmental phases.
- Modifying the treatment plan: Braces vs Invisalign
- Gradual exposure (desensitization) – Placing partial braces in a series of appointments (small steps with positive re-enforcement)
- “Realistic” finished treatment results vs “ideal” finished treatment results

Pre Treatment /Progress Records Partial Braces (Desensitization)

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## **Orthodontic Challenges**

### **Records –**

- Blurry x-rays
- Cephalometric x-ray - O.R. (Hand and E.T. tube visible)
- Compromised photos
- Orthodontic bands everywhere!

### **Retention –**

- Bonded expanders used for retention
- Bonded retainers – hard to keep clean, food restrictions
- Essix retainers – not always durable
- Circumferential and Hawley retainers – oral motor sensory issues

## **Finished Orthodontic Cases**

Pre & Post Phase I Treatment (Expander Only)

Pre & Post Phase I Treatment (Expander Only)

Pre & Post Treatment (Braces Only)

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Pre & Post Treatment (Braces & Maxillary Frenectomy)

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Pre & Post Treatment (Headgear/Braces Gingivoplasty For Dilantin Hyperplasia, Crown Lengthening Teeth # 3, 14)

Pre & Post Treatment (Expander, Extractions Teeth # 5/12, Braces)

Pre & Post Treatment (Extractions Teeth # 5/12, Braces)

Pre & Post Treatment (Braces & Surgical Exposure Of Impacted Tooth # 6)

Pre & Post Panorex X-Ray

### **Treatment In O.R. Treatment In O.R.**

- Cephalometric X-ray taken
- Dentist prophied teeth, placed sealants, performed restorations and extracted several primary teeth
- Cemented bonded palatal expander
- Fit bands/impression lower lingual holding arch

Pre & Post Treatment Maxillary (Braces Only)

### **Treatment In O.R.**

- Braces placed & bands fitted
- Maxillary frenectomy & gum tissue trimming
- Braces removed
- Upper impression for essix retainer

### **Compromised Finished Results**

- Pre & Post Treatment Expander & Braces (Parents Declined A Surgical Correction)
- Pre Treatment /Progress Records Full Braces
- Pre & Post Treatment Braces Only - Surgical Expansion and Surgical Exposure of Tooth # 6 Declined by Parent