Mutational Falsetto

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What is Mutational Falsetto?

- **Mutational Falsetto**: a post-adolescent male continuing to have a preadolescent voice (Stemple et al., 2000).
- **Juvenile Voice**: a post-adolescent female having the vocal qualities of a child (Nicolasi et al., 2004).
- **AKA**: Functional Falsetto, Puberphonia, Persistent Falsetto (Nicolasi et al., 2004).
What kind of Voice Disorder is Mutational Falsetto?

- Functional and
- Psychogenic
- Why???

- There are typically no physical anomalies
- Often it is related to emotional or psychological factors
Demographic

- Male Dominance
  - Young men between age 11-15 (Dagli et al., 2008)
  - 1/900,000 men per year (Pau & Murty, 2001)
- Juvenile Voice is very rare (Hedge, 2001)
Signs and Symptoms

- Increased pitch or fundamental frequency
- Weak, breathy, hoarse voice
- Pitch breaks
- Low intensity (Dagli et al., 2008)
- Psychological symptoms
Etiology

- Resisting change of puberty
- Habitual pitch
- Dislike new pitch after puberty
  - New pitch does not match personality
- Want to remain young
- More identification with females (Hedge, 2001)
- Singing voice
- Embarrassment (Stemple et al., 2000)
- Anatomical differences (Lim et al., 2007)
Diagnosis

- Case History
- Assessment of vocal quality and pitch
- Laryngostroboscopy
- Psychological Assessment
## Treatment of Mutational Falsetto

<table>
<thead>
<tr>
<th>Treatment Approach</th>
<th>Author(s)/Year</th>
<th>Subject(s)</th>
<th>Method(s)</th>
<th>Result(s)</th>
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<td>Pau, H. &amp; Murty, G.E., 2001</td>
<td>24 year old male</td>
<td>Surgical lowering of the hyoid→lowering of the larynx</td>
<td>6 weeks post surgery→went from 175Hz to 142Hz= successful surgical lowering of pitch</td>
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<td><strong>Laryngoscope Procedure</strong></td>
<td>Vaidya, S. &amp; Vyas, G., 2006</td>
<td>26 males Ages 14 to 20 years</td>
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<td>44 males, 1 female Ages 13 to 40 years</td>
<td>Manual manipulation of larynx, larynx depressing exercises, vegetative voice (coughing, yawning, etc)</td>
<td>All patients lowered speaking voice to appropriate pitch for their age and gender</td>
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<td>Manual compression of the larynx, prolongation of phonation at a lower pitch (syllables, words, sentences, paragraphs, conversation)</td>
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Treatment Approach: 
Surgical 

- Surgery of the hyoid, thyroid cartilage, and larynx 
- Lowered hyoid and thyroid cartilage which subsequently lowered the larynx 
- Results = successful in lowering the pitch (Pau & Murty, 2001)
Treatment Approach: Laryngoscope Procedure

- Performed on 26 men successfully
- Pressure applied to the valleculae with laryngoscope and digital manipulation of the thyroid cartilage
- Results: immediate change from child voice to adult voice (Vaidya, S. & Vyas, G., 2006)
Treatment Approach: Voice Therapy

- Treatment hierarchy
  - Demonstrate appropriate pitch using Direct Vocal Manipulation (Stemple et al., 2000)
  - Allow client to hear difference in their habitual pitch and the lower pitch
  - Single phonemes, simple sounds, words, phrases, sentences, conversational level.
  - Train family

- Treatment should be fast (Hedge, 2001)
Voice Therapy: Direct Vocal Manipulation

- Demonstrate appropriate pitch
  - Hard Glottal Attack
  - Lowering of the larynx

- Stabilize new pitch using treatment hierarchy (Stemple et al., 2000)
Voice Therapy:
Manual Manipulation and Compression of the Larynx

- Thyroid cartilage area is pressed downward with the fingers to hold the larynx down and prevent it from moving upward during phonation (Lim et al., 2007).
- “Downward and dorsal pressure” on thyroid cartilage (Dagli et al., 2008)
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Research is Needed!!!

- “a search of PubMed database revealed 8 articles published since 1983” (Dagli et al., 2008, p. 277)
- Not often documented in case loads or research studies=difficult to study incidence and treatment (Dagli et al., 2008)
- Available studies lack validity


