Compensatory Swallowing Strategies

Types of Treatment: *Compensatory Strategies*

- Postural changes
- Improving oral sensory awareness
- Swallowing Maneuvers
- Modification of volume and speed of food presentation
- Food consistency/diet changes or liquid viscosities
- Intraoral prosthetics

Types of Treatment: *Therapy Procedures*

- Oral motor control exercises
- Oral and Pharyngeal ROM Exercises
- Sensory-Motor Integration Procedures
- Swallow maneuvers

Postures: *Head Tilt*

- Tilt the head to the stronger side to direct bolus down the most intact side
- Use for: problems caused by unilateral oral weakness or unilateral oral and pharyngeal weakness (on same side)

Postures: *Chin Down or Chin Tuck*

- Touch chin to neck
- What does it do?
    - Widens vallecular space; narrows airway entrance
    - Pushes epiglottis posteriorly into more protective position over airway
    - Pushes tongue base backward toward pharyngeal wall
- Used if: there is a delay in triggering the pharyngeal swallow; reduced posterior movement of tongue base; unilateral laryngeal dysfunction; reduced airway entrance closure

Postures: *Head Turn or Head Rotation*

- Turning to the weaker **(damaged) side** closes the damaged side from the bolus path allowing the bolus to pass through the intact side.
- What does it do?
    - Pulls cricoid cartilage away from posterior pharyngeal wall, reducing resting pressure in UES
    - Increases vocal fold closure by applying extrinsic pressure, narrows laryngeal entrance
- Used if: there is unilateral pharyngeal paresis; cricopharyngeal dysfunction; unilateral laryngeal dysfunction

Postures: *Head Back/Chin Up*

- What does it do?
    - Facilitates drainage of the food out of the oral cavity by taking advantage of gravity
- Helpful for patients with reduced tongue control resulting in reduced posterior propulsion of the bolus
- Use only for patients with adequate laryngeal closure or who can perform the supraglottic swallow
- May aid patients with reduced lip closure - tilting head slightly back and toward stronger side keeps food in the mouth

Postures: *Lying Down on the Side or Back*

- What does it do?
    - Eliminates the effects of gravity on pharyngeal residue
    - Reverses gravitational pull on the residue effectively keeping it on the pharyngeal wall until subsequent swallows clear it
- Useful for patients with reduced laryngeal elevation or pharyngeal wall contraction resulting in residue spread throughout the pharynx
- Liquids via a straw for efficient intake
- Not indicated if residue builds after each swallow or patient has history of reflux

Improving Oral*:* *Sensory Awareness*

- Increasing **downward pressure with spoon** on the tongue
- Presenting **sour or cold** bolus
- Presenting a bolus requiring **chewing**
- Presenting a **larger volume** bolus
- **Thermal-tactile** stimulation
    - with use of cold laryngeal mirror
- **Suck-swallow**
    - drawing saliva to the back of the mouth while lips closed

Therapy Procedures: *Sensory-motor Integration Exercise*

- May need to be part of a restorative/ maintenance program for some patients
- Useful for patients with **reduced recognition of food** in the mouth, extremely **slow oral transit** (apraxia), or delay in **triggering the swallow**
- Include **arm and hand motion of self-feeding** to give preliminary sensory input that something is coming to the mouth- independently or assisted by caregiver
- Thermal-tactile stimulation

Therapy Procedures: *Swallow Maneuvers*

- **Supraglottic swallow**
  - Used for reduced or late vocal fold closure, delayed pharyngeal swallow
- **Super-supraglottic swallow**
  - Used for reduced closure of airway entrance
- **Effortful swallow**
  - Used for reduced posterior movement of the tongue base
- **Menselsohn maneuver**
  - Used for reduced laryngeal movement, discoordinated swallow

Other Compensatory Strategies: *Application to Specific Problems*

- For **Reduction of Tongue Elevation** - position food posteriorly with straw or syringe
- For **Oral Tongue Dysfunction** and/or **Delayed Pharyngeal Swallow** - use thickened liquids/purees
- For patients with **Poor Pharyngeal Contraction -** take smaller boluses at a slower rate
- For patients with significant **Tongue Resections or Bilateral Tongue Paralysis-** use palatal augmentation or reshaping prosthesis
- For patients with **Reduced Intraoral Pressure-** use short straw or change straw placement

Therapy Procedures: *Oral Motor Exercises*

- **Oral Control and Oral/Pharyngeal Range-of- Motion Exercises**
  - Oral motor Control Exercises
  - Range of Motion Tongue Exercises
  - Resistance Exercises
  - Bolus Control Exercises
    - Exercises to Improve Gross Manipulation of Bolus
    - Exercises to Hold a Cohesive Bolus
  - Bolus Propulsion Exercises
  - Range-of-Motion Exercises for Pharyngeal Structures
    - Airway Entrance
    - Vocal Fold Adduction Exercises
    - Tongue Base Exercises
    - Laryngeal Elevation Exercises
- Directions for exercise regimens should be written for patients/family/caregivers
- Specify number of repetitions, time to complete, number of practice sessions/day
- Continuously monitor and increase/decrease exercise demands as needed

Swallowing Strategies: *Basic Precautions*

- **Maintain oral care**
    - Independently or with staff assistance
- **Energy conservation**
    - Pauses, rest breaks, utensil down between bites
- **Reduce pace of consumption**
- **Small sips and bite sizes**
- **One sip or bite at a time**
- **Maintain moisture in the oral cavity**
    - Alternate solids (2-4): liquids (1)
- **Maintain upright position during and after meal**
- **Caregiver assistance for meal setup as needed**

Reference

Logemann, J. A. (1998). *Evaluation and Treatment of Swallowing Disorders* . (2nd ed.) (pp. 199-246). Austin, TX: PRO-ED.

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