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


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