PEDIATRIC OROPHARYNGEAL DYSPHAGIA

WHAT IS OROPHARYNGEAL DYSPHAGIA?

Oropharyngeal dysphagia is a feeding and swallowing problem that may result from various medical or congenital conditions. The degree of impairment in feeding or swallowing may vary from mild to severe. In infants, dysphagia symptoms may include difficulty sucking, initiating the swallow, or coordinating the suck-swallow-breathe sequence when feeding from the breast or bottle. In older children, dysphagia can occur during any phase of the swallowing process, as well as include avoidance or severe dislike of specific foods or different food textures, tastes or temperature. Children with oropharyngeal dysphagia may be at risk for malnutrition, dehydration, respiratory problems, and problems when eating in social situations.

THE NORMAL SWALLOW

- **Oral Preparatory Phase:** The lips and tongue form a seal around the nipple, utensil, cup, or straw and draw the liquid/food into the mouth. The muscles of the tongue hold and prepare the liquid and food to swallow. Good head, jaw and tongue control allow for adequate chewing of solid foods.
- **Oral Phase:** A voluntary phase, during which the tongue pushes the food/liquid toward the back of the mouth in preparation for the swallow. This process occurs in less than 1 second.
- **Pharyngeal Phase:** The muscles of the tongue and throat work together to push the food/liquid through the throat into the esophagus (the food tube that extends into the stomach) while the airway closes tightly.
- **Esophageal Phase:** Food/liquid is carried down into the stomach in an involuntary muscle action that takes about 3-10 seconds in infants and 8-20 seconds in older children and adults.

COMMON SYMPTOMS ASSOCIATED WITH PEDIATRIC DYSPHAGIA

- Difficulty coordinating swallowing with respiration
- Recurrent pneumonia, frequent upper respiratory infections
- Difficulty sucking, drinking, chewing, or swallowing
- Choking, coughing, gagging, or vomiting during or immediately after meals or drinking
- Avoidance or acceptance of only certain types of food and/or liquids
- Decline in activity or alertness during eating or drinking
- Fatigue with feedings or lengthy feeding times (more than 30 minutes)
- Excessive drooling of food or liquid
- Increased fussiness or crying during meals
- Congestion during or after meals
- Weight Loss/Failure to Thrive
- Liquid leaking out of the nose

CONDITIONS RELATED TO FEEDING AND SWALLOWING DISORDERS

- Extreme prematurity/low birth weight
- Failure to thrive
- Developmental delay
- Respiratory distress syndrome
- Post cardiac/gastrointestinal tract surgery
- Gastroesophageal reflux (acid reflux)
- Tracheostomy
- Intubation-aversive oral stimulation
- Neurological conditions
- Cerebral Palsy
- Anatomic abnormalities (cleft lip/palate, head or neck deformities)
- Trauma
- Behavioral problems associated with meal time
- Texture, taste and/or temperature aversion
- Inadequate dentition

ASSESSMENT OF PEDIATRIC OROPHARYNGEAL DYSPHAGIA

If you suspect that your child may have a problem with bottle/cup drinking, eating, or swallowing, contact your pediatrician, who will refer you to a speech-language pathologist specializing in feeding and swallowing disorders. Several methods of assessment may be utilized to evaluate the infant or child with a feeding and/or swallowing issue.

CLINICAL FEEDING AND SWALLOWING EVALUATION

This evaluation is conducted by the speech-language pathologist, who will determine the nature of the feeding/swallowing disorder, the degree of severity, and the need for further assessment. During the clinical assessment, the speech-language pathologist will review your child's medical, developmental and feeding history, as well as discuss your concerns. An evaluation of your child's oral-motor function, positioning while feeding, sensory factors that may interfere with meal times, caregiver-child interaction, and behavioral components while eating will be assessed. Your child will be provided with liquids and foods of varying textures to eat to assess the timing and strength of chew, transit of food/liquid and swallow response to determine an appropriate diet level and guidelines.

VIDEO SWALLOW STUDY

A videofluoroscopic swallow study may be recommended when the results of the clinical feeding and swallowing evaluation are inconclusive or suggest the presence of pharyngeal (throat) dysphagia and/or aspiration concern (food or liquid entering the airway). This is an instrumental assessment of your child's swallowing ability, which involves having your child drink liquids and eat foods mixed with barium while observing them on an x-ray video. This study is designed to examine the nature of the swallowing dysfunction and gives vital information regarding potential treatment options.

RESULTS OF THE DYSPHAGIA ASSESSMENT

Following a complete assessment of the infant or child's feeding/swallowing skills, the speech-language pathologist will also consider your child's posture, self-feeding abilities, medical status, and nutritional intake to determine an appropriate diet and method to receive adequate nutrition. Oral and written feeding guidelines will be provided to caregivers and medical professionals involved in your child's care.

MANAGEMENT AND TREATMENT OF DYSPHAGIA

The speech-language pathologist may also initiate treatment techniques to improve your child's swallow function or reduce food avoidance and behavioral issues. Other medical professionals that may be involved in management of your child's feeding/ swallowing impairment include:

- ❑ Nurse
- ❑ Neonatologist/Pediatrician
- ❑ Otolaryngologist (Ear, Nose, and Throat Physician)
- ❑ Gastroenterologist (GI Physician)
- ❑ Pediatric surgeon
- ❑ Pulmonologist
- ❑ Dentist
- ❑ Speech-Language Pathologist
- ❑ Nutritionist/Dietician
- ❑ Occupational/Physical therapists
- ❑ Child Psychologist/Behavioral specialist
- ❑ Social Worker

The ultimate goal in the management and treatment of a feeding or swallowing disorder is to ensure proper nutrition necessary for growth and development in the safest and most enjoyable manner possible for the child. Treatment will vary in terms of amount and focus depending on the cause, symptoms, and severity of the feeding or swallowing problem. It may also include a variety of approaches, including meal modifications, proper feeding positions/postures, medical management, or behavioral/environmental adjustments. In the case of severe dysphagia related to medical conditions or severe developmental delays, alternative methods of feeding (e.g. tube feeding) may be considered as the primary nutrition source or supplement to oral feedings to allow for optimal nutritional intake.

SUGGESTIONS FOR CAREGIVERS

Early identification and intervention can have the following effects:

- ❑ Reduced time in treatment
- ❑ Reduced additional complications
- ❑ Decreased behavioral issues associated with eating
- ❑ Decreased stress to the child and family
- ❑ Optimized nutritional intake for physical and cognitive development
- ❑ Reduced potential for additional medical procedures

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