

Evaluation of Swallowing Disorders

- * Abnormalities in anatomy and neuromuscular dysfunction of the oral cavity and pharynx are the causes of swallowing disorders.
- * Swallowing disorders are demonstrated clinically by symptoms such as dysphagia and radiographically by disturbed motility due to anatomical or neuromuscular abnormalities. Clinical symptoms and radiographic features help clinician spot the nature and phases of swallowing dysfunction that is caused by the anatomic or neuromuscular abnormalities to design a proper treatment.
- * The objectives in evaluating dysphagia are to¹ →
 - Recognize the problem, because some patients are not consciously aware of their difficulty with swallowing (e.g., those with silent aspiration).
 - Identify the anatomic region involved: Is the problem oral, pharyngeal or esophageal?
 - Acquire clues to the etiology of the condition.
- * Therefore, clinicians approach patient with swallowing disorders by →

Taking careful history:

- * Drooling, delayed swallow initiation, coughing, throat clearing or a change in voice quality may indicate a problem. After the swallow, the patient should be observed for a minute or more to see if there is a delayed cough response.

Bedside physical examination:

- * The physical examination should include the neck, mouth, oropharynx and larynx, and a neurologic examination should also be performed.

Videofluoroscopy Swallowing Study:

- * Studying the videofluoroscopic findings, to relate these clinical findings to the anatomical or neuromuscular pathologies that cause the swallowing disorder.
- * The quantity of retained food will be evaluated, if aspiration occurs or food is retained after swallowing

Testing of food consistency:

- * Various foods should be tested to determine the effects of food consistency on swallowing. For example, some, but not all, patients with poor bolus control experience less aspiration with thick liquids (e.g., apricot nectar or tomato juice) than with thin liquids (e.g., water or apple juice). Patients with poor pharyngeal contraction usually have more pharyngeal retention with thickened liquids and chewed solid foods than with thin liquids. The results of the VFSS make it possible to design an individualized diet. This diet would include foods that could be eaten and swallowed safely by a particular patient

Additional Diagnostic Studies

- * **Esophagoscopy** can be used to rule out neoplasia in patients who complain of thoracic dysphagia or odynophagia (pain on swallowing).
- * **Esophageal manometry and pH probe studies** may be appropriate when a motility disorder or GERD is suspected, but they are rarely the first lines of investigation.

- * **Electromyography** is indicated in patients with motor unit disorders, such as polymyositis, myasthenia gravis or amyotrophic lateral sclerosis.
- * **Fiberoptic endoscopic examination of swallowing (FEES)** is a transnasal laryngoscope that is used to assess pharyngeal swallowing. Because pharyngeal contraction obstructs the lumen, the FEES does not show the motion of essential food way structures or the food bolus during the swallow. However, it can identify aspiration and pharyngeal retention after the swallow. A FEES may be helpful when a VFSS is not possible.

