# Dysphagia in the Hospitalized Patient

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**KEYWORDS**

• Dysphagia • Aspiration pneumonia • Feeding tubes • Swallowing disorder
• Deglutition disorder • Esophageal disease

**HOSPITAL MEDICINE CLINICS CHECKLIST**

1. Characterizing dysphagia as oropharyngeal versus esophageal is a crucial distinction for clinicians to make, influencing both differential diagnosis and management.
2. Recognize that speech and language pathologists specialize in evaluation and management of oropharyngeal dysphagia. Esophageal dysphagia is typically diagnosed and managed in conjunction with a gastroenterologist.
3. When dysphagia renders oral feeding impossible or inadequate to meet nutritional needs, enteric feeding should be considered.
4. Nasoenteric feeding should be used for patients in whom swallowing disability is anticipated to be short term (less than 30 days).
5. Recognize that gastrostomy (G-tubes) show little evidence for improved outcomes compared with careful hand feeding for dysphagic patients with advanced dementia.
6. Allow at least 1 week after an acute stroke to assess for swallowing recovery before considering placement of a G-tube.

## DEFINITIONS

### *1. What is the definition of dysphagia?*

*Dysphagia* is defined as difficulty swallowing, that is, passing food from mouth to stomach. Dysphagia should be distinguished from *odynophagia* and *globus*. *Odynophagia* is defined as pain with swallowing. *Globus* is a feeling of a lump in the throat

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and can sometimes be mistaken for dysphagia. Unlike dysphagia, globus sensation is characteristically present between swallowing periods; it is typically benign in nature.[1–5]

## PHYSIOLOGY AND PATHOPHYSIOLOGY

### *1. What is the physiology of normal swallowing?*

The process of swallowing is complex, involving approximately 30 muscles of the mouth and pharynx and 5 cranial nerves, and requires coordination between sensory and motor processes. Most conceptual models divide the process into oral, pharyngeal, and esophageal phases.[2–7]

During the oral phase, mastication and salivation process food into a bolus, which is propelled toward the oropharynx by the tongue. The actions of the oral phase are volitional; as such, fluctuations in alertness, such as in a hospitalized patient with delirium, can impact this phase. During the pharyngeal phase, striated pharyngeal muscles sequentially constrict to propel the bolus toward the upper esophageal sphincter while simultaneously closing off passage into the nasopharynx and the airway.

The esophageal phase of swallowing entails propulsion of the bolus through the lower esophageal sphincter and into the stomach via peristalsis. The distal two-thirds of the esophagus is composed of smooth muscle, the actions of which are governed autonomically by the esophageal myenteric plexus.[2] The esophageal phase is physiologically distinct from the oropharyngeal phase, which is mediated centrally.

### *2. How does healthy aging affect swallowing function?*

The term *presbyphagia* is used to describe swallowing in older adults. Aged swallowing is characterized by slower speed of action and diminished lingual pressures, endurance, and physiologic reserve, which increase vulnerability to true dysphagia.[6–9] Nevertheless, healthy older adults compensate for these changes and should not experience symptomatic dysphagia in the absence of true disease.[4,5]

### *3. How is dysphagia classified?*

Dysphagia is typically classified as oropharyngeal or esophageal.[2,9] This distinction is crucial in guiding subsequent diagnostic workup and management.

### *4. What is silent aspiration?*

Aspiration is typically defined as entry of ingested material into the airway below the level of the true vocal folds. It is possible for this to occur without obvious manifestations such as coughing, gagging, or throat clearing. In these instances, the event is referred to as *silent aspiration* and often must be seen using videofluoroscopy. Silent aspiration carries the same range of adverse outcomes as overt aspiration and may in fact incur increased risk of pneumonia.[6,10]

## EPIDEMIOLOGY

### *1. What is the incidence and prevalence of dysphagia?*

Estimates of the prevalence of dysphagia vary among the population studied. Prevalence in hospitalized patients has been estimated at 12% to 13%,[11] with rates among