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## DYSPHAGIA: A COMPREHENSIVE OVERVIEW

**Dysphagia, a medical condition characterised by difficulty swallowing, can significantly impact an individual's quality of life. This article provides a comprehensive overview of dysphagia, delving into its types, physical and emotional impacts, and the multidisciplinary approaches essential for effective management.**

Dysphagia can arise from various causes, affecting different stages of the swallowing process and leading to complications such as malnutrition, dehydration and aspiration pneumonia.<sup>1</sup> Understanding dysphagia involves recognising its symptoms, identifying its underlying causes and exploring the diverse treatment options available.

### TYPES OF DYSPHAGIA

Dysphagia can be categorised into two main types: oropharyngeal dysphagia and oesophageal dysphagia. Each type has distinct causes and symptoms and understanding these differences is crucial for appropriate diagnosis and treatment.

#### 1 Oropharyngeal dysphagia

This occurs when there are problems with the muscles and nerves that help move food from the mouth into the throat and oesophagus. It primarily affects the initial phase of swallowing.

##### Causes:

- **Neurological disorders.** Conditions such as stroke, Parkinson's disease, multiple sclerosis and amyotrophic

lateral sclerosis (ALS) can impair the nerves and muscles involved in swallowing.<sup>2</sup>

- **Muscular disorders.** Diseases like myasthenia gravis or muscular dystrophy can weaken the muscles required for swallowing.
- **Structural abnormalities.** Congenital defects, tumours or inflammation can obstruct the passage of food.
- **Infections.** Infections like pharyngitis or tonsillitis can cause swelling and difficulty swallowing.

##### Symptoms:

- Coughing or choking during or immediately after eating or drinking
- Nasal regurgitation where food or liquids come back up through the nose
- Voice changes such as hoarseness or a wet, gurgled voice after swallowing
- Recurrent pneumonia due to aspiration
- Difficulty initiating swallowing, with a sensation of food sticking in the throat





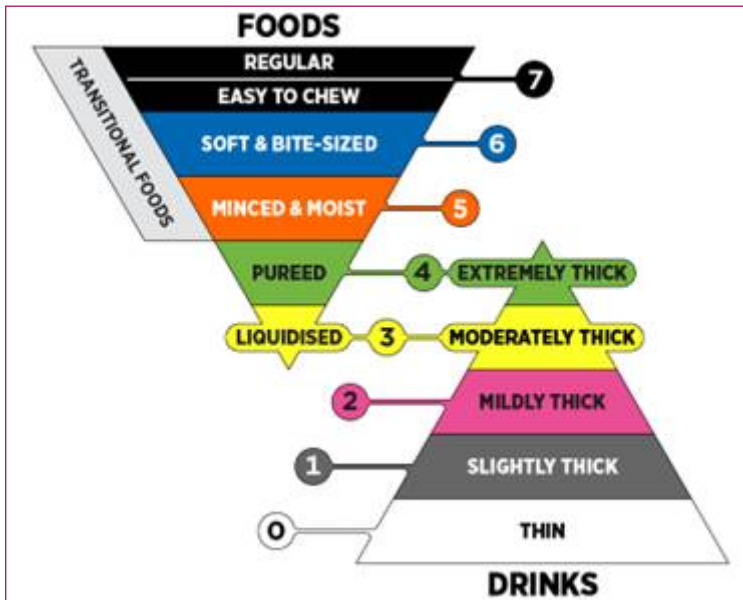
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Figure 1: The IDDSI Framework



## 2 Oesophageal dysphagia

This occurs when there are problems with the oesophagus, the tube that connects the throat to the stomach. It primarily affects the passage of food through the oesophagus.

### Causes:

- **Obstructions.** Conditions such as oesophageal strictures (narrowing of the oesophagus), tumours or foreign bodies can block the passage of food.
- **Motility disorders.** Disorders like achalasia, where the lower oeso-phageal sphincter fails to relax properly, or oesophageal spasms, can disrupt the normal movement of food.
- **GERD.** Chronic gastroesophageal reflux disease can lead to esophagitis and strictures.
- **Eosinophilic esophagitis.** This is an allergic condition causing inflammation and scarring of the oesophagus.
- **Radiation therapy.** Treatment for cancer in the head, neck or chest can damage the oesophagus.

### Symptoms:

- A sensation of food sticking in the chest or throat
- Painful swallowing known as odynophagia
- Regurgitation of food or liquids into the mouth
- Heartburn associated with GERD
- Weight loss due to difficulty eating and maintaining proper nutrition

### TREATMENT METHODS

Tables 1 and 2 overleaf provide a clear overview of the various treatment methods available for managing both types of dysphagia, offering insights into how each method works to alleviate symptoms and improve swallowing function.

### THE IDDSI FRAMEWORK

The International Dysphagia Diet Standardisation Initiative (IDDSI) is a global organisation that has developed a standardised framework for the consistency of foods and liquids for individuals with dysphagia. The goal of IDDSI is to improve safety and quality of life for



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Table 1: Treatment methods for oropharyngeal dysphagia

| Treatment method                   | Definition of method   |
|------------------------------------|--|
| <b>Swallowing exercises</b>        | Tailored exercises to strengthen the muscles involved in swallowing, to improve the range of motion, increase strength and enhance coordination of the tongue, lips and throat muscles. <sup>3</sup> |
| <b>Compensatory techniques</b>     | Techniques such as the chin-tuck manoeuvre or head-turning to one side to reduce the risk of aspiration and improve the safety and efficiency of swallowing.   |
| <b>Thermal-tactile stimulation</b> | Using cold or textured stimuli to trigger a more robust and timely swallowing reflex. <sup>4</sup>   |
| <b>Texture modification</b>        | Altering the texture of foods and liquids to make them easier to swallow, such as pureeing solid foods or thickening liquids.  |
| <b>Nutritional supplements</b>     | High-calorie and nutrient-dense supplements for individuals who have difficulty maintaining adequate nutrition.  |
| <b>Feeding tubes</b>               | Nasogastric (NG) tubes or percutaneous endoscopic gastrostomy (PEG) tubes to ensure proper nutrition and hydration when oral intake is insufficient. <sup>5</sup>                                    |
| <b>Botulinum toxin injections</b>  | Injections to relax affected muscles in cases of muscle spasticity or dystonia affecting swallowing. <sup>6</sup>  |
| <b>Cricopharyngeal myotomy</b>     | A surgical procedure to cut the cricopharyngeal muscle to improve swallowing when this muscle fails to relax properly.   |

Table 2: Treatment methods for oesophageal dysphagia

| Treatment method                          | Definition of method   |
|---|--|
| <b>Proton pump inhibitors (PPIs)</b>      | Medications that reduce stomach acid production to manage gastroesophageal reflux disease (GERD) and alleviate inflammation and scarring in the oesophagus. <sup>7</sup> |
| <b>Prokinetic agents</b>                  | Medications that enhance the motility of the oesophagus and help coordinate muscle contractions.   |
| <b>Topical steroids</b>                   | Medications that reduce inflammation in cases of eosinophilic esophagitis.   |
| <b>Endoscopic dilation</b>                | Endoscopic procedure that involves stretching or dilating the oesophagus to relieve strictures.  |
| <b>Stent placement</b>                    | Inserting a stent (a flexible tube) in the oesophagus to keep it open, especially in cases of malignant strictures or severe narrowing.                                  |
| <b>Endoscopic mucosal resection (EMR)</b> | Removing abnormal tissues, such as tumours or growths, that may be causing obstruction in the oesophagus.  |
| <b>Heller myotomy</b>                     | Surgical procedure to treat achalasia by cutting the muscles at the lower end of the oesophagus to allow better passage of food into the stomach.                        |
| <b>Fundoplication</b>                     | Surgical procedure that wraps the top of the stomach around the lower oesophagus to strengthen the lower oesophageal sphincter and reduce acid reflux.                   |
| <b>Eating habits adjustments</b>          | Smaller more frequent meals, chewing food thoroughly, eating slowly and avoiding foods that exacerbate reflux, such as spicy or fatty foods.                             |
| <b>Supplemental nutrition</b>             | Enteral nutrition (tube feeding) or parenteral nutrition (intravenous feeding) for cases where oral intake is insufficient.  |

those with swallowing difficulties, by providing clear, consistent terminology and definitions for different texture-modified foods and thickened liquids. This standardisation helps healthcare providers, caregivers and patients communicate more effectively and ensures that individuals with dysphagia receive appropriate nutrition and hydration tailored to their specific needs.<sup>8</sup>

The IDDSI levels are as follows:

**Level 7: Regular (Normal):** This is the standard everyday food that requires no modification. It includes a variety of textures, such as crunchy, chewy and soft foods, and is suitable for individuals without any swallowing difficulties.

**Level 6: Soft & Bite-Sized:** Foods at this level are tender and moist, easy to chew and cut into bite-sized pieces to reduce choking risk. Examples include tender meats, cooked vegetables and soft fruits. There should be no hard, tough or fibrous textures.

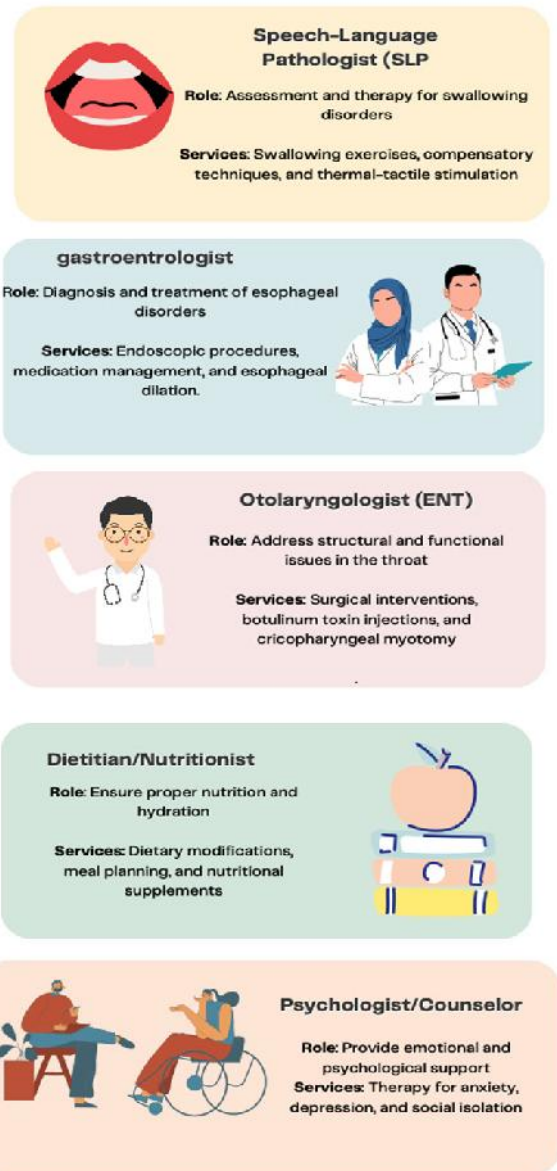
**Level 5: Minced & Moist:** These foods are finely minced or ground, requiring minimal chewing. They should be moist and cohesive, meaning they stay together in the mouth. Examples include minced meats, mashed fruits and vegetables with added moisture like gravy or sauce.

**Level 4: Pureed:** Pureed foods are smooth, uniform in texture and free of lumps. They require no chewing and should be able to hold their shape on a spoon but slide off easily when tilted. This level includes items like pureed meats, vegetables and fruits.

**Level 3: Liquidised/Moderately Thick:** These foods and drinks are smooth and have no lumps. They flow off a spoon but at a slower rate than thin liquids. They can be consumed from a cup or eaten with a spoon and include thickened soups, yoghurt and smoothies.

**Level 2: Mildly Thick:** Mildly thick liquids flow off a spoon but more slowly than thin liquids. They require slightly more effort to drink and can be sipped through a wide straw or directly from a cup.

Figure 2: The MDT team for dysphagia management



**Level 1: Slightly Thick:** These liquids are thicker than water but still flow easily. They require a bit more effort to drink than thin liquids and can be sipped through a standard straw or cup.

**Level 0: Thin:** Thin liquids flow like water and move quickly. They can be sipped from any type of cup, straw or teat/nipple. This level is suitable for individuals without swallowing difficulties.

## MULTIDISCIPLINARY TEAM FOR DYSPHAGIA MANAGEMENT

Effectively managing dysphagia requires a multidisciplinary team (MDT) approach.<sup>10</sup> This team typically includes various healthcare professionals, each bringing their expertise to address different aspects of the condition. The effectiveness of this multidisciplinary team hinges on regular communication and collaboration among its members. This ensures that the patient receives comprehensive and cohesive care. Team meetings, shared electronic health records and coordinated care plans help to align the efforts of all professionals involved. By working together, the team can address the complex and multifaceted needs of individuals with dysphagia, ultimately improving their health outcomes and quality of life.

### PHYSICAL AND EMOTIONAL IMPACT

Dysphagia, or difficulty swallowing, significantly impacts both physical and mental well-being. Physically, it can lead to malnutrition and dehydration due to challenges in consuming enough nutrients and fluids, resulting in weight loss and nutrient deficiencies. Additionally, the risk of aspiration, where food or liquid enters the airway, can cause aspiration pneumonia and chronic

respiratory infections. This condition often accompanies gastroesophageal reflux disease (GERD), causing further inflammation and pain. These physical complications require careful dietary management and medical intervention to maintain health and prevent serious issues.

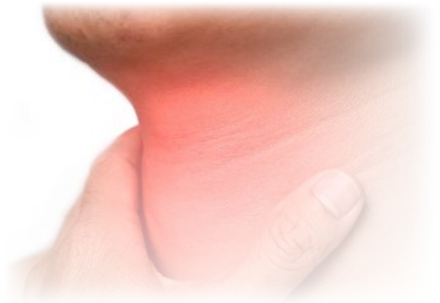
Mentally, dysphagia can lead to anxiety and depression. The fear of choking or aspiration during meals can make eating a stressful activity, potentially leading to food avoidance and further nutritional issues.<sup>9</sup> Social isolation is common, as individuals may withdraw from social gatherings involving food, resulting in feelings of loneliness and depression. The overall quality of life is diminished as individuals contend with the dual challenges of physical discomfort and emotional distress, highlighting the need for comprehensive management and support.

## CONCLUSION

The treatment and management of dysphagia require a comprehensive, individualised approach tailored to the specific type and cause of the swallowing difficulty. Through a combination of therapeutic exercises, dietary modifications, medical and surgical interventions and ongoing monitoring, individuals with dysphagia can achieve improved swallowing function and a better quality of life. Advances in medical research continue to enhance our understanding and treatment options, offering hope for more effective management of this challenging condition.

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Questions relating to: *Dysphagia: a comprehensive overview.*

Type your answers below, download and save or print for your records, or print and complete by hand.

**Q.1** What are the two categories of dysphagia and when do they occur?

A

**Q.2** Describe the causes of oropharyngeal dysphagia.

A

**Q.3** Give three treatment methods for oropharyngeal dysphagia.

A

**Q.4** What are the symptoms of oesophageal dysphagia?

A

**Q.5** What are proton pump inhibitors used for?

A

**Q.6** Describe two surgical procedures for the treatment of oesophageal dysphagia.

A

**Q.7** What are the goals of the IDDSI framework?

A

**Q.8** Outline IDDSI levels 3 and 4.

A

Please type additional notes here.