

# Swallowing Disorder



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### UPDATE ON DYSPHAGIA – 'A TOUGH PILL TO SWALLOW'

Dysphagia results from difficulty in the transit of food, fluid or secretions from the oral cavity to the stomach. The reported prevalence rate for dysphagia in the general community in the UK is reported to be as high as 11%<sup>(1)</sup>. It can affect 40–70% of patients with stroke, 60–80% of patients with neurodegenerative diseases, and up to 13% of adults aged 65 and older, as well as 60–75% of patients who undergo radiotherapy for head and neck cancer<sup>(2)</sup>. In one community pharmacy study (where most patients were over 60 years old), 69% of patients missed medication doses due to perceived problems swallowing tablets or capsules<sup>(3)</sup>.

Disorders can loosely be divided into two based on the phase of swallowing that they primarily affect i.e. oropharyngeal phases or the oesophageal phase. Initial history can usually determine the stage of swallowing affected and guide further diagnostic tests and management.

### OROPHARYNGEAL DYSPHAGIA

Oral dysphagia can manifest with problems initiating the swallow and controlling the movement of food within the oral cavity. Pharyngeal dysphagia is associated with nasal regurgitation, shortness of breath, coughing, hoarseness and dysphonia. Whilst aging can be associated with mild physiological changes, dysphagia should never be attributed to the normal aging process.

In older patients it is usually caused by CNS disorders such as stroke, Parkinson's disease and dementia, whereas muscular disorders, such as myasthenia gravis, dermatomyositis and muscular dystrophy affect younger patients. Systemic review should include weakness and any associated tremor or speech disturbance. Fatigue may point towards a diagnosis of myasthenia gravis. Muscle fasciculation with wasting and weakness may suggest motor neurone disease (MND).

**Table 1. When should I refer a person with suspected oesophageal cancer?** Suspected cancer: recognition and referral [NICE, 2015].

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**Offer urgent direct access upper gastrointestinal endoscopy (to be performed within 2 weeks) to assess for oesophageal cancer in people:**

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With dysphagia or

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**Aged 55 and over with weight loss and any of the following:**

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Upper abdominal pain

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Reflux

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Dyspepsia

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### OESOPHAGEAL DYSPHAGIA (TABLE 2)

Oesophageal dysphagia often presents with a sensation of food sticking in the neck or retrosternally. It can be associated with heartburn, regurgitation and chest pain. Short disease period, weight loss, progressive symptoms, as well as dysphagia more to solids than liquids, support a diagnosis of malignancy. Achalasia is a neurodegenerative disease of the oesophagus with increasing prevalence with increasing age. Dysphagia to both solids and liquids, passive nocturnal regurgitation and changing body position to assist the passage of food or fluid supports a diagnosis of achalasia. Patients often present with chest pain as part of their symptom complex.



Intermittent food impaction in a young male is suggestive of eosinophilic oesophagitis. This is an allergic condition of the oesophagus commonly in individuals with an atopic history. Eosinophilic oesophagitis is an increasingly recognised condition, partly through greater awareness of the disease but probably also due to a true increase in incidence. Patients often have a protracted duration of intermittent symptoms before diagnosis.

## POINTS ON EXAMINATION

Muscle and joint pains, the presence of rashes, thickened skin or Raynauds may signify an underlying connective tissue disorder. The most well-known association is with systemic sclerosis (previously 'CREST' syndrome – calcinosis, raynaud's, esophageal dysmotility, sclerodactyly, telangiectasia).

This causes smooth muscle atrophy of the oesophageal body, resulting in absent oesophageal peristalsis. The poor oesophageal motility can also result in difficult to treat GORD. Neck examination should be performed to assess for goitre and cervical lymphadenopathy. Significant kyphosis or osteoarthritis may be associated with anterior cervical osteophytes. This can cause extrinsic compression to the oesophageal body resulting in dysphagia.

Plummer-Vinson Syndrome is a rare disorder presenting with a triad of dysphagia, iron deficiency anaemia and an oesophageal web. It is more common in middle aged females. Clinical features include glossitis, angular cheilitis and koilonychia.

*Table 2. Treatment options for causes of Oesophageal Dysphagia.*

Oesophageal Causes for Dysphagia	Treatment Options
Adenocarcinoma	Endoscopic resecton/surgery, chemotherapy, radiotherapy
Benign Strictures – usu. Peptic or caustic	Anti-secretory medication/endoscopic dilatation
Achalasia	Balloon dilatation, surgical or endoscopic myotomy, botox injection
Oesophageal web (eg Plummer -Vinson syndrome with assoc. Fe Def anaemia)	Endoscopic dilatation
Schatzki Ring	(treat underlying cause eg GORD or eosinophilic oesophagitis), endoscopic dilatation
Eosinophilic Oesophagitis	Dietary manipulation, Topical steroids, PPI therapy, dilatation of strictures
Oesophageal Motility disorders, eg distal oesophageal spasm, jackhammer oesophagus	Nitrates, calcium channel blockers, sildenafil, endoscopic therapy (eg Botox injection/dilatation)
Oesophageal candidiasis	Oral triazoles, eg fluconazole
GORD/ Hiatus Hernia	Dietary/lifestyle modifications, anti-secretory therapy, endoscopic or surgical anti-reflux procedures (eg Stretta, LINX, Nissen's fundoplication)

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## DYSPHAGIA IN GORD

Only 49% of patients with GORD say that heartburn is their most troublesome symptom<sup>(4)</sup>. Other symptoms associated with GORD include chest pain, regurgitation and odynophagia. A small proportion (<10%) will complain of dysphagia as their most troublesome symptom, and it is important to exclude either malignancy or peptic stricture when dysphagia is present. Supra-oesophageal symptoms attributed to GORD include chronic cough, throat clearing and hoarseness. Globus sensation – the feeling of a lump in the throat, comes from the Latin word for a ball, and needs to be differentiated from true dysphagia. Whilst globus remains non-specific symptom for GORD, recent studies have shown that patients with globus have a hyperdynamic upper oesophageal sphincter and increased sensitivity to proximal oesophageal distension.

## Investigations:

### UPPER GI ENDOSCOPY

Most patients with a suspected oesophageal cause for dysphagia will require an upper GI endoscopy. This is a useful tool for excluding an obstructive cause. Biopsies from the distal and mid-oesophagus should be taken (even in patients with normal appearances), to exclude eosinophilic oesophagitis). Therapeutic interventions can be performed, for example dilatation of strictures, resection of webs and occasionally botox injection. Endoscopic ultrasound can be useful when submucosal OGJ lesions or pseudoachalasia is suspected.

### BARIUM SWALLOW

This can be useful for patients who cannot tolerate endoscopy and in particular conditions such as a pharyngeal pouch (zenker's diverticulum).

It can also be useful in the diagnosis of hiatus hernia, achalasia and oesophageal motility disorders, however has largely been superseded by high resolution oesophageal manometry. A modified barium swallow – videofluoroscopy, can be performed in conjunction with speech and language therapists for patients with oropharyngeal dysphagia.

### PHARYNGOLARYNGOSCOPY

Fibre-optic endoscopic evaluation (FEES) is another technique used by speech and language therapists to visualise the anatomy and physiology of the swallowing mechanism, and can assess laryngeal penetration and aspiration. Nasendoscopy/laryngoscopy can assess structural and some functional aspects of the oropharynx and larynx.

### HIGH RESOLUTION OESOPHAGEAL MANOMETRY

This is the most sensitive tool for diagnosing oesophageal motility disorders and achalasia. It can be combined with ambulatory pH monitoring if GORD is suspected. A newer technique called pH-impedance monitoring can determine the presence of both acid and non-acid reflux and the proximal extent of reflux up the oesophagus.



# Treatment Options

This will depend on the underlying condition (see table 2). The treatment for oesophageal neoplasia will depend on the stage of disease at presentation. Adenocarcinoma detected in patients undergoing regular surveillance for Barrett's is associated with significantly better outcomes including cancer-related mortality<sup>(5)</sup>.

Over one third of patients with achalasia will be treated as GORD before a diagnosis is made<sup>(6)</sup>. The diagnosis should be considered in patients not responding to typical antisecretory medications. Treatment is with either surgical or endoscopic myotomy (POEM procedure), endoscopic balloon dilatation or botox injection to the gastro-oesophageal junction.

Eosinophilic oesophagitis is a common cause of dysphagia in young adults, often with a history of allergy, atopy or asthma. The mainstay of treatment is with topical steroids, although there is a subset of patients who respond to PPI therapy (PPI-responsive eosinophilia). Dietary manipulation can also be used although this is not first line therapy in adults.

*Table 3. A number of systemic diseases can be associated with oesophageal dysfunction.*

## Systemic Diseases Associated with Oesophageal Dysphagia

Connective Tissue Diseases	Endocrine & Autoimmune Diseases	Neuromuscular Disorders	Infective	Inflammatory Diseases
Scleroderma Raynaud's Sjogren's Rheumatoid Arthritis SLE JHS	Diabetes Mellitus Thyroid Disorders	Stroke Parkinson's MND Myasthenia Gravis	Candidiasis Epiglottitis Pharyngitis Retropharyngeal abscess Chagas Disease (rare!)	Amyloidosis Sarcoidosis*

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\*Can present as a pseudoachalasia.