

Food for Special Medical Purposes for the Dietary Management of Dysphagia



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Medical foods (also known as Food for Special Medical Purposes [FSMPs]) are essential in the dietary management of patients who cannot meet their nutritional needs by food alone. This article focuses on dysphagia and how medical foods can play a role for managing this challenging condition.

There are three main stages of swallowing: oral, pharyngeal and oesophageal.¹ The oral phase is the first stage and is the voluntary movement of fluid or the food bolus from the oral cavity into the oropharynx. This is followed by the pharyngeal phase, which is the involuntary movement of the bolus from the oropharynx into the oesophagus. Finally, there is the oesophageal phase, which is the involuntary movement of the bolus through the oesophagus and into the stomach. Everyday we take swallowing for granted, but for those with dysphagia it can be stressful, unpleasant and unsafe.

Dysphagia is the medical term used to describe difficulty with swallowing.² Though it can differ in severity, dysphagia is estimated to affect 4 million people in the UK.³ Whatever the severity, without the correct management it may lead to difficulty in consuming enough food and/or fluid, resulting in malnutrition or dehydration. Dysphagia can affect any of the three stages of swallowing, but difficulty or an inability to safely move a bolus from the mouth to the oesophagus can lead to aspiration, where food or drink enters the airways or lungs. This is called oropharyngeal dysphagia.⁴

What causes dysphagia?

Dysphagia is usually caused by a medical condition, but it can also be a consequence of ageing due to

loss of muscle mass or strength, or changes in the swallowing mechanism.⁵ Oropharyngeal dysphagia affects 40-78% of stroke patients, with it becoming a chronic condition in up to half of cases.⁶ The World Gastroenterology Global Guidelines⁷ estimate that dysphagia also affects 60-80% of patients with progressive neurological conditions, up to 13% of adults aged 65 and older and over 51% of institutionalised elderly patients. Approximately 50% of patients with head and neck cancer are also affected by dysphagia^{8, 9} and dysphagia is a key risk for people with dementia.¹⁰

According to the NHS, dysphagia signs include:¹¹

- Coughing or choking when eating or drinking
- Bringing food back up, sometimes through the nose
- A feeling that food is stuck in your throat or chest
- A gurgly, wet-sounding voice when eating or drinking.

In addition to an impaired ability to consume adequate volumes of food and fluid, dysphagia patients also have an increased risk of choking and aspiration which can lead to aspiration pneumonia. Between 43 and 51% of people with dysphagia suffer from aspiration.¹² Early detection and intervention, involving a multidisciplinary team (MDT), are therefore key.^{13, 14}

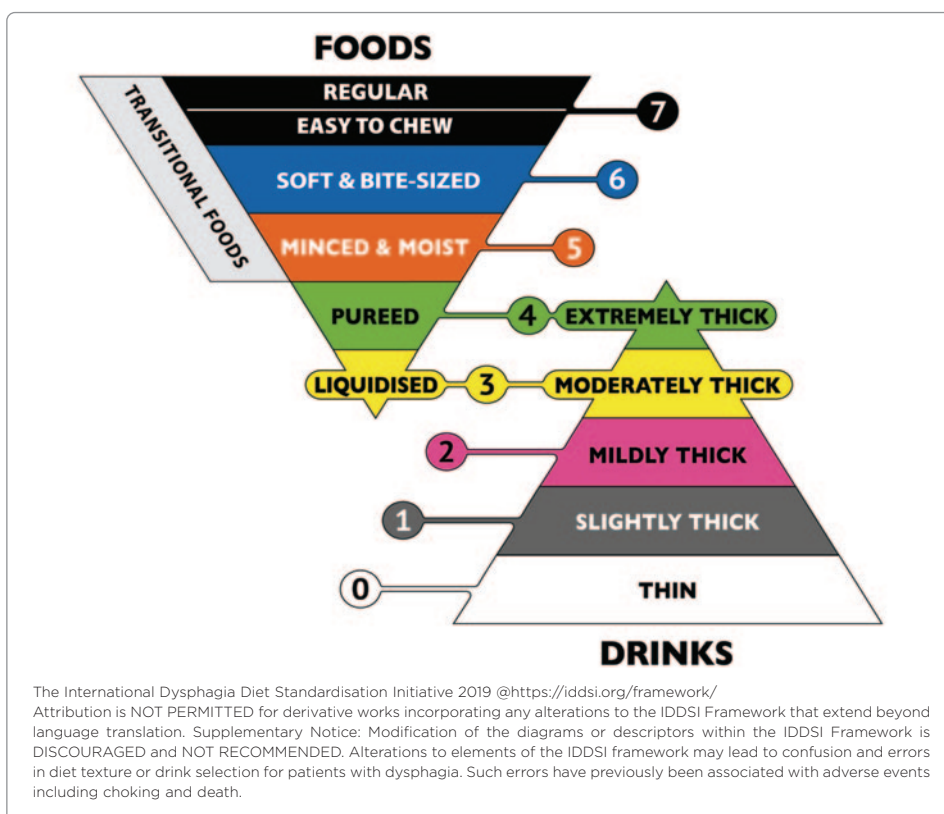
Managing dysphagia

It is important that a qualified healthcare professional (HCP), usually a speech and language therapist (SLT), assesses a patient's swallow to determine the type, severity, cause and management of the dysphagia. A patient may be able to eat and drink orally, but the texture of their food and thickness of their liquids may need to be modified, or they may be required to be nil by mouth (NBM) with alternative methods of feeding, namely enteral tube feeding, considered as an option. Patient posture, position and the tools used will also be reviewed for those eating and drinking with adjustments made as required.

According to the Malnutrition Pathway,¹⁵ patients receiving texture modified diets and fluids frequently fail to meet their nutrition and fluid requirements¹⁶ and have an increased risk of malnutrition and dehydration. Therefore, continuous assessment of patients' nutrition and hydration status is key.¹⁵ Contributory factors include:

- Reduced palatability
- Fear of aspiration
- The addition of liquid to produce a pureed meal may dilute the nutritional content
- Continuous drooling
- Lack of skills and support to prepare appropriate meals.

Figure 1: The IDDSI Framework



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The International Dysphagia Diet Standardisation Initiative (IDDSI)

The International Dysphagia Diet Standardisation Initiative (IDDSI) was developed as an international standardised terminology for texture modified foods and thickened liquids for people with dysphagia to improve patient safety.¹⁷ The IDDSI Framework (see **Figure 1**), which consists of a continuum of eight levels where drinks are measured from Levels 0-4 and foods from Levels 3-7, was adopted by the British Dietetic Association (BDA) and the Royal College of Speech and Language Therapists (RCSLT) and implemented in the UK in April 2019. Detailed descriptors and simple testing methods accompany each level and can be used by people with dysphagia, caregivers, HCPs, food service or industry to confirm the level a food or fluid falls within.¹⁷

Puréed food

A diet of puréed foods is recommended for patients who have difficulties with the oral preparatory phase of swallowing, who pocket food in the buccal recesses, or who have significant pharyngeal retention of chewed solid foods.¹⁸ When puréeing or liquidising foods for patients with dysphagia, presentation and taste are important to make the food palatable and enjoyable.

Using strong flavours and separating foods on the plate may help to encourage patients to eat orally and provide nutrition. Many care homes and hospitals rely on puréeing in order to provide meals for patients with dysphagia, but it can impact the nutritional content of foods with a reduction in energy, protein content, vitamins and fibre content due to the process.¹⁹

Medical foods

FSMPs may also be used for patients with dysphagia under the supervision of a HCP. These are specially formulated products to help with the management of dysphagia and include thickening powders to thicken the consistency of liquids, and pre-thickened nutritional products. Fluid thickening is a valid therapeutic strategy for patients with oropharyngeal dysphagia.²⁰

Thickening powder: A thickening powder, available in gum or starch form, may be added to liquids to change the consistency. Thickened liquids may be easier for patients with dysphagia as they change the viscosity, making the liquid travel more slowly down the throat and, therefore, easier to control and less likely to cause aspiration.²⁰ They can also be used to prepare texture modified foods, to help ensure food does not separate from liquid and to achieve an even consistency throughout.

A recent study⁴ assessed the impact thickened fluid has on the hydration status of patients with oropharyngeal

dysphagia, as dehydration is a highly prevalent complication. The study found scientific evidence supporting the use of thickened fluid therapy on the hydration status of patients with oropharyngeal dysphagia. However, strict monitoring of fluid volume intake is essential due to the low consumption of thickened fluid in these patients.⁴

Pre-thickened products: Oral nutritional supplements (ONS) have been shown to be a clinically and cost-effective way to manage malnutrition and can lead to reductions in complications, hospital readmissions and clinical outcomes.^{21, 22, 23, 24} Pre-thickened ONS and puddings are available for patients with dysphagia in a range of flavours. These products provide additional energy, protein, vitamins and minerals and may be required for patients who are unable to achieve enough nutrition from food and drink alone. When an ONS is required for a patient with dysphagia, a pre-thickened ONS should be used in preference to a standard ONS which is then thickened as these products have been specifically developed and tested with the correct IDDSI descriptor providing reassurance of the right consistency. Standard ONS, which may be used for patients with dysphagia but are not their primary target, are not labelled with the IDDSI descriptors.

Tube feeds: If dysphagia is very severe and it is deemed unsafe for a patient to

consume food and drink orally, a feeding tube may be used. This could either be a nasogastric (NG) tube (usually indicated for a short duration), or a percutaneous endoscopic gastrostomy (PEG) tube which goes directly into the stomach.

Not only is it important to consider the individual needs of the patient when deciding which medical food to use, but it is also important that the patient is regularly monitored, so that their diet and intervention can be modified as necessary depending on the improvement or progression of their condition. Progression can vary greatly depending on the cause of dysphagia, with some patients experiencing a deteriorating swallow, for example a patient with a degenerative neurological condition, whereas other patients may find their dysphagia improves or completely resolves, for example a stroke patient.

Conclusion

It is fundamental that those with, or at risk of, dysphagia are identified and managed appropriately by a MDT in order to reduce the risk of malnutrition, dehydration and aspiration pneumonia. This includes modifying the diet to the appropriate IDDSI levels, allowing for the safe consumption of food and liquid. Medical foods should be used to enhance patient safety and ensure optimal nutrition and hydration for the patient where appropriate.

About the British Specialist Nutrition Association

BSNA is the trade association representing the manufacturers of products designed to meet the particular nutritional needs of individuals; these include specialist products for infants and young children (including infant formula, follow-on formula, young child formula and complementary weaning foods), medical nutrition products for diseases, disorders and medical conditions, including oral nutritional supplements, enteral tube feeding and parenteral nutrition, as well as companies who aseptically compound chemotherapy, parenteral nutrition and CIVAS.



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