Recommendations

Early identification of dysphagia is important to minimize dysphagia-associated complications. Some individuals may not be aware or want to disclose that they are having difficulty swallowing.

Caregivers need to be conscious of the following signs and symptoms, to minimize risk of respiratory infections, dehydration and malnutrition:

- Coughing and/or choking when eating or drinking
- Drooling/poor management of oral secretions
- Pocketing of food in cheeks
- Facial weakness
- Gurgly, hoarse voice or lots of throat clearing
- Multiple swallows for each bolus
- Decline in respiratory status
- Prolonged meal times
- Weight loss or malnutrition
- Reoccurring chest colds
- Pain with swallowing
- Increasing avoidance of multiple foods and/or liquids

Recommendations for texture modified diets should be continued until reassessed by a qualified health professional. If the individual has not been previously assessed by a qualified health professional, such a referral should be made.

Nutrition intake and hydration status should be monitored in individuals on texture modified diets.

Health Benefits

A texture modified diet provides the following health benefits:

- Safe swallowing to prevent consequences of dysphagia and aspiration including: malnutrition, dehydration and aspiration pneumonia.
- Appropriate management and treatment plan.

Key Questions

What is dysphagia?

Dysphagia is defined as difficulty during swallowing.\(^1\) Throughout this document, the terms dysphagia and swallowing difficulty will be used interchangeably.

Prevalence of dysphagia among people 50 years and older may be as high as 22%.\(^2\) Unmanaged dysphagia can lead to dehydration, malnutrition, social isolation, decreased quality of life, respiratory infections and death.\(^2\)
Caregivers need to be conscious of the following signs and symptoms of dysphagia, to minimize risk of respiratory infections, dehydration and malnutrition:\(^1,^3\)

- Coughing and/or choking when eating or drinking
- Drooling/poor management of oral secretions
- Pocketing of food in cheeks
- Facial weakness
- Gurgly, hoarse voice or lots of throat clearing
- Multiple swallows for each bolus
- Decline in respiratory status
- Prolonged meal times
- Weight loss or malnutrition
- Reoccurring chest colds
- Pain with swallowing
- Increasing avoidance of multiple foods and/or liquids

Individuals with dysphagia are at risk for developing aspiration pneumonia. Aspiration is defined as food or liquids passing into the airway. 10 to 30% of hospital admissions for pneumonia are due to aspiration.\(^4\) The mortality rate for aspiration pneumonia ranges from 20 to 65%.\(^5\) Not everyone with dysphagia will develop aspiration pneumonia.

Risk factors for aspiration pneumonia include:\(^6\)

- Predisposing medical conditions
- Feeder dependence
- Institutional setting
- Decreased level of consciousness or altered mental state
- Decreased functional status
- Tube feeding
- Gastroesophageal reflux disease (GERD)
- Poor nutritional status
- Compromised immune system
- Reduced pulmonary clearance
- Smoking
- Poor oral hygiene (bacteria colonization in mouth and throat)

**What is a texture modified diet?**

A texture modified diet is one in which the textures of solid foods and/or the liquid consistency are altered to better align with an individual’s swallowing ability. Texture modified diets can fall anywhere along a continuum from very restrictive to least restrictive foods. Often a blender or food processor is required to change an “allowed” food to the desired texture.
What are the different textures of solid foods used in dysphagia diets?

**Dysphagia Soft:** Foods are soft and moist, and is usually served with a gravy or sauce. Foods are either diced to 1 cm cubed or less on the longest side, or are mashable using a fork in one hand. Foods that are dry, crumbly, sticky, gummy, hard, or chewy should be avoided. The diet is indicated for patients who are unable to chew or swallow food in a solid state due to: chewing or swallowing difficulties (dysphagia); limited dentition.

**Minced:** Foods are minced, grated, or finely mashed. All foods should be moist and cohesive (i.e. able to stick together; not crumbly), and require little chewing. There should be no water separation. Regular bread products are allowed, but bread products that are dry or crumbly should be avoided. In some cases, bread products may need to be pureed. It is indicated for patients who are unable to chew or swallow food in a solid state due to: chewing and/or swallowing difficulties (dysphagia), sore or dry mouth, and limited dentition.

**Pureed:** Foods are pureed to the texture of a pudding or mousse, including pureed bread products. Pureed foods are soft, moist, homogeneous, smooth and cohesive. Foods should have no visible particles and have no water separation. Solids must be thick enough to spoon up a minimum of 7.5-10 mL onto a teaspoon; liquids may be thinner. Foods must pass through a 1 mm mesh screen (except oatmeal). Preparation requires the use of a hand blender with chopper attachment, mini chopper, blender or food processor. The Pureed diet includes the “No Mixed Consistencies” modification (see below, in this section). It is indicated for patients who are unable to chew or swallow food in solid state due to: chewing and/or swallowing difficulties (dysphagia); sore or dry mouth; strictures; mucositis; esophagitis; poor or absent dentition.

**Pureed Bread Products:** Some individuals with swallowing problems have difficulties chewing or swallowing bread products. All bread products, such as bread, bread stuffing, muffins, sandwiches, pancakes, crackers, cookies, cake and bread pudding must be pureed to have the look and texture of pudding or mousse. Pureed bread products are indicated for patients who are unable to chew or swallow bread products in a solid state due to chewing and/or swallowing difficulties, sore or dry mouth, strictures, esophagitis, mucositis, or poor or absent dentition. This modification is usually added to a Minced or Dysphagia Soft diet.

**No Mixed Consistencies:** Some individuals have difficulties swallowing foods that contain different consistencies, or two phases. These foods have a thin fluid phase and a solid phase. For example, foods with a thin liquid and solid pieces in the same mouthful, such as soup with grain, vegetable or meat pieces, or cold cereal with milk. Foods that release thin liquid when chewed, such as watermelon or cherry tomatoes, also need to be avoided. These foods are modified to be made safe (such as pureed soups), or avoided altogether. Avoiding mixed consistencies may be indicated for patients with dysphagia who are not able to control two consistencies (thin fluid and solids) in their mouth at the same time. This modification is usually added to a Minced or Dysphagia Soft diet.

What foods should individuals eat on texture modified diets?

Just like individuals without dysphagia, those with swallowing difficulties need to choose a variety of foods from all four of the food groups of Canada’s Food Guide. Individuals following texture modified diets should
continue to eat balanced meals and snacks. They should be able to adapt most foods they are already eating to meet their new texture recommendations.

Once an appropriate texture has been determined by a qualified health professional via a swallowing assessment, a Registered Dietitian can review the individual’s previous food intake and make suggestions about how to alter foods to the new texture. Emphasizing small, more frequent meals (i.e. 3 meals and 3 snacks per day), as well as energy and protein dense foods, can help individuals achieve adequate nutrition and hydration intake. Individuals having difficulty preparing foods can try Meals on Wheels, which provides texture modified diets, or Trepuree® (pureed frozen meals).

What are thick fluids?

A fluid is any liquid, such as water or juice. A fluid can also be a food that melts at body temperature; including ice, ice cream, and Jell-O®. For some individuals with dysphagia, a professional will recommend thick fluids for safe swallowing.

Consistency levels for fluids:

- Regular: No changes required. Fluids may be thin and all fluids are served in the format they are produced.
- Nectar Thick: Fluids are mildly thick, run freely off a spoon but leave a thin coating on the spoon.
- Honey Thick: Fluids are moderately thick and slowly drip in dollops off the end of a spoon. They should pour more slowly, like liquid honey.
- Pudding Thick: Fluids are extremely thick, sit on the spoon and do not flow off it. They should be as thick as pudding and must be eaten from a spoon.

Fluids can be thickened with commercial food thickeners that can be purchased or ordered at local pharmacies. Commercial food thickeners provide some direction for how to thicken various liquids to a nectar, honey or pudding thick level. Fluids will not always thicken in the same way. All thick fluids should be tested to ensure that the fluid drops off a spoon at the desired consistency before feeding begins.

Pre-thickened beverages are also available in nectar and honey thick consistency.

Note: the above descriptions are only meant to assist with answering questions about a consistency that has already been recommended.

Individuals with dysphagia should have a swallowing assessment completed by a qualified health professional prior to trying any texture modifications. Texture modifications or changes to fluid consistencies should not be recommended by anyone other than qualified health professionals.

Handouts

Refer to approved provincial Alberta Health Services dysphagia nutrition handouts to support patient education. For more information, contact Nutrition.Resources@albertahealthservices.ca
References


