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Dysphagia

Difficulty swallowing is most simply known as dysphagia. Symptoms of dysphagia include: drooling, choking, coughing during or following meals, inability to suck from a straw, gurgly voice quality, absent gag reflect, heartburn, fever, dehydration and chronic upper respiratory infections. Patients with intermediate or late-stage PD, MS, ALS, dementia or stroke are likely to have dysphagia. A swallowing evaluation by a speech-language pathologist is important in assessing and treating swallowing disorders. Swallowing tests can also be performed such as a Barium swallow, cookie swallow and esophagoscopy. A definite test in diagnosing dysphagia is a videofluorographic swallowing study. Generally, observations during meals allow the nurse or RD to screen for signs of dysphagia and bring them to the attention of the health care team.

There are three stages of swallowing: the oral stage, which is voluntary, the pharyngeal phase and the esophageal phase, both involuntary. During the oral phase, food is placed into the mouth where it is chewed, combined with saliva and formed into bolus. The tongue then pushes the bolus to the rear of the oral cavity. During the pharyngeal phase, the bolus is passed to the esophagus. During the esophageal phase, the bolus continues through the esophagus and into the stomach. Dysphagia occurs when there is any difficulties during these stages.

Weight loss and anorexia are key concerns with dysphagia. For patients with dysphagia, swallowing thin liquids is the hardest because it requires the most coordination and control. There are seven levels of dysphagia and they are as follows:

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| **Level** | **Signs/Symptoms** |
| **Nonoral Intake** |
| 1: Severe dysphagia, no oral feeding, nothing by mouth | * Severe retention in pharynx
* Severe oral stage bolus loss or retention
* Silent aspiration
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| 2: Moderately Severe Dysphagia, Maximum Assistance of Maximum Use of Strategies with Partial Nutrition by mouth only | * Severe retention in pharynx
* Aspiration with two or more consistencies
* Severe oral stage bolus loss or retention
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| **Oral Diet: Modified Texture and Independence** |
| 3: Moderate dysphagia: Total assist, supervision or strategies; two or more diet consistencies restricted | * Moderate retention in pharynx that is cleared with cue
* Moderate retention in oral cavity that is cleared with cue
* Airway penetration to the level of the vocal cords without cough with two or more consistencies
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| 4: Mild-Moderate Dysphagia: Intermittent supervision; one to two diet consistencies restricted | * Retention in pharynx that is cleared with cue
* Retention in oral cavity that is cleared with cue
* Aspiration with one consistency; airway penetration to the level of the vocal cords with cough with two consistencies
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| 5: Mild Dysphagia: Distant Supervision; May need one diet consistency restricted | * Aspiration of thin liquids only but with strong reflexive cough to clear completely
* Airway penetration midway to cord or to cords with one consistency but clears spontaneously
* Retention in pharynx that is cleared spontaneously
* Mild oral dysphagia with reduced mastication or oral retention
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| **Full Oral Intake of Normal Diet** |
| 6: Within functional limits; modified independence  | * Normal diet
* May need extra time for meal
* No aspiration
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| 7: Normal Diet in all situations | * Normal diet
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Based on these levels, there are three dysphagia diets recommended. Level 1 is the pureed diet and is generally used with those who fall within levels 1 and 2. Level 2 is mechanically altered foods and is generally used with those who fall within levels 2 and 3. Level 3 is an advanced diet, generally used for those in levels 3 and 4. In acute and chronic neurologic cases, nutrition support may be beneficial. Generally, enteral nutrition is the preferred method. Nutrition support should be used in order to enhance the quality of life. National Dysphagia Diets are allowed:

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| National Dysphagia Diet 1 Pureed |
| Food Allowed | Food Not Allowed |
| Includes foods of “pudding-like” consistency that are smooth or pureed with no lumps | Gelatin desserts, fruited yogurt, peanut butter, unblenderized cottage cheese, scrambled, fried or hard-cooked eggs |
| National Dysphagia Diet 2 Dysphagia Mechanically Altered |
| Foods that are moist and soft textured such as finely diced meats, soft cooked vegetables, soft canned fruit, moistened cereals | Bread, dry cake, rice, cheese cubes, corn and peas |
| National Dysphagia Diet Dysphagia Advanced |
| Includes most regular foods except very hard, sticky or crunchy items. Bread, rice, cake, shredded lettuce and moist meats are allowed | Hard fruit, vegetables, corn skins, nuts and seeds |

There are thickening agents that thicken liquids. Techniques for improving acceptance of dysphagia foods include an appetizing aroma, seasoning food, garnishing foods, molding foods, layering foods, piping the foods and preparing slurries.

According to the National Institute of Neurological Disorders, dysphagia can be partially or completely corrected using diet manipulation or non-invasive methods. Generally the prognosis is based off a case-to-case bases because the dysphagia may be caused by a variety of diseases or injuries that would contribute to the prognosis.

The following is an example of a mechanically altered diet:

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| Breakfast | 1/2 cup orange juice, at prescribed consistency1/2 cup oatmeal1/4 cup low-fat milk, to moisten oatmeal1 soft, scrambled egg1 muffin1 teaspoon butter, for muffin1 cup beverage with minimal texture |
| Lunch | 1 moist cookie1/2 cup tomato soup, at prescribed consistency3 oz moist meatloaf1/4 cup tomato sauce, for meatloaf1/2 cup well-cooked mix of carrot and peas1/2 cup moist potatoes3 crackers, slurried1/2 cup vanilla pudding1 cup beverage with minimal texture |
| Evening Meal | 1/2 cup potato soup, at prescribed consistency3 slurried crackers1 cup moist chicken-noodle casserole1/2 cup well-cooked green beans, without strings1 slice apple pie with moist crust1/2 cup ice cream1 cup of a beverage with minimal texture |

There are also a variety of different websites that offer more information.

* Asha.com
* Mayoclinic.org
* Midcd.nih.org

Resources

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