## Dysphagia Diet <br> 5 Levels for Difficulty In Swallowing Diet

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Purpose

Dysphagia means difficulty with chewing or swallowing food or liquid. To understand how this might happen, it is important to know something about how swallowing occurs. First, food must be chewed thoroughly. Then it is moved to the back of the mouth by tightening the cheek muscles and pressing the tongue against the roof of the mouth. From this point on the process becomes automatic -- it is a reflex that people do not actively control. In "rapid- fire" succession, the soft palate closes the nasal airway to prevent food from backing into it, the airway into the lungs is closed, and the esophagus (food pipe) relaxes allowing food and liquid to enter it. The muscular esophagus then contracts in a wave-like action, sweeping the food along into the stomach. A blockage or a malfunction anywhere in this part of
 the body or in the nervous system controlling swallowing can result in dysphagia. There are two types:

Esophageal dysphagia occurs when food/liquid stops in the esophagus. This happens most often because of consistent stomach acid refluxing (backing up) into the esophagus. Over time, the reflux causes inflammation and a narrowing (stricture) of the esophagus. Food and eventually liquids feel like they are sticking in the middle and lower chest. There may be chest discomfort or even real pain. Fortunately, physicians can usually dilate (widen) this narrowing, and there is now treatment available to keep it from returning. Cancer, hiatus hernia, and certain muscle disorders of the esophagus are less frequent causes of esophageal dysphagia. Solid food is usually more of a problem than liquids

Oropharyngeal dysphagia involves difficulty moving food to the back of the mouth and starting the swallowing process. This type of dysphagia can result from various nerve or brain disorders such as stroke, cerebral palsy, multiple sclerosis, Parkinson's and Alzheimer's diseases, cancer of the neck or throat, a blow to the brain or neck, or even dental disorders. Depending on the cause, symptoms may include drooling, choking, coughing during or after meals, pocketing of food between the teeth and cheeks, gurgly voice quality, inability to suck from a straw, nasal regurgitation (food backing into the nasal passage), chronic respiratory infection, or weight loss. Liquids are usually more of a problem in oropharyngeal dysphagia.

The first step in treatment is to make the proper diagnosis. This involves a medical history and various tests to find the cause of the dysphagia. Often a team approach to treatment is needed. Several types of health care providers -- physicians, registered dietitian, psychologist, speech pathologist, occupational therapist -- work together to develop the best program.

An important part of the treatment is helping the patient get adequate nutrition, while protecting against complications such as pneumonia from food or liquid getting into the lungs. Obviously, this requires a specialized diet. There are five different diet levels from puréed (level 1) up through modified regular food (level 5). The diets vary in texture and consistency, and are chosen depending on which would be most effective for a specific patient.

## Nutrition facts

These diets are all nutritionally adequate. However, some patients may have difficulty taking enough fluid and food to get all the energy and nutrients they need. In this case, an adjustment to diet or

## Liquids

Fluids are essential to maintain body functions. Usually 6 to 8 cups of liquid (48-64 oz) are needed daily. For some dysphagia patients, this may present problems because thin liquid can be more difficult to swallow. In this case, fluid can be thickened to make it easier to swallow. However, close monitoring by the dysphagia team is required for anyone drinking less than 4 cups of thickened fluid a day or anyone not progressing to thin liquids within 4 weeks.

## Calories

The greater problem for some patients is eating enough calories. The whole process of eating simply becomes too difficult and too tiring. However, calorie and protein intake can be increased by fortifying the foods the patient does eat.

- Fortify milk by adding 1 cup of dry powdered milk to one quart of liquid milk. Use this protein fortified milk when making hot cooked creamed soups, sauces, milkshakes, and puddings. Also add margarine, sugar, honey, jelly, or puréed baby food to increase calories.
- Add strained baby fruit to juices, milkshakes, and cooked cereals.
- Add 1 jar of strained baby meat to soup, such as strained chicken noodle soup. Also add strained baby meats to sauces and gravies, and mix with strained vegetables.
- Add juice to prepared fruit, cereal, or milkshakes.


## Special Considerations

The following are some general guidelines for safe swallowing. Remember that dysphagia patients have individual requirements, so all of these guidelines may not apply to every patient.

- Maintain an upright position (as near 90 degrees as possible) whenever eating or drinking.
- Take small bites -- only $1 / 2$ to 1 teaspoon at a time.
- Eat slowly. It may also help to eat only one food at a time.
- Avoid talking while eating.
- When one side of the mouth is weak, place food into the stronger side of the mouth. At the end of the meal, check the inside of the cheek for any food that may have been pocketed.
- Try turning the head down, tucking the chin to the chest, and bending the body forward when swallowing. This often provides greater swallowing ease and helps prevent food from entering the airway.
- Do not mix solid foods and liquids in the same mouthful and do not "wash foods down" with liquids, unless you have been instructed to do so by the therapist.
- Eat in a relaxed atmosphere, with no distractions.
- Following each meal, sit in an upright position (90 degree angle) for 30 to 45 minutes.


## Level 1 <br> Puréed Foods

Foods in this group are puréed to a smooth, mashed potato-like consistency. If necessary, the puréed foods can keep their shape with the addition of a thickening agent. Meat is puréed to a smooth pasty consistency. Hot broth or hot gravy may be added to the puréed meat, approximately 1 oz of liquid per 3 oz serving of meat.

## CAUTI ON:

If any food does not purée into a smooth consistency, it may make eating or swallowing more difficult. For example, zucchini seeds sometimes do not blend well.
Puréed meats, poultry, \& fish
Puréed tuna, ham, \& chicken salad
Pureed scrambled eggs \& cheese
Baby cereals
Thinned cooked cereals (no lumps)
Puréed French toast or pancakes
Mashed potatoes
Puréed parsley, au gratin, scalloped potatoes, candied sweet potatoes
Puréed buttered or Alfredo noodles
Puréed vegetables (no corn or peas)
Puréed soups \& creamed soups
Puréed scalloped apples
Gravies
Sauces: cheese, tomato, barbecue, white, creamed
Decaffeinated coffee or tea

Puréed cottage cheese
Puréed fruit
Thickened juices \& nectars
Thickened milk or eggnog
Malts
Thick milkshakes

Ice cream

Fruit or Italian ice, sherbet
Plain yogurt

Smooth \& drinkable yogurt
Smooth pudding, mousse, custard
Whipped gelatin
Sugar, syrup, honey, jelly
Cream

Non- dairy creamer

Margarine

Mayonnaise

Ketchup, mustard

## Sample Menu, Level 1

## Breakfast

## Lunch

- orange juice $1 / 2$ cup
- cream of wheat 1/2 cup
- scrambled eggs with cheese $1 / 2$ cup
- decaffeinated tea 1 cup
- whole milk 1 cup
- non-dairy creamer 2 Tbsp
- ketchup 1 Tbsp
- margarine 1 tsp
- salt $1 / 4$ tsp
- sugar 2 tsp
- pineapple juice 1/2 cup
- puréed beef 3 oz
- gravy 2 Tbsp
- mashed potatoes 1/2 cup
- puréed fresh broccoli 1/2 cup
- apple sauce 1/2 cup
- decaffeinated coffee 1 cup
- non-dairy creamer

2 Tbsp

- margarine 1 tsp
- salt $1 / 4$ tsp
- sugar 1 tsp


## Dinner

- puréed turkey barley soup 3/4 cup
- puréed Hawaiian chicken 3 oz
- mashed potatoes 1/2 cup
- puréed spinach 1/2 cup
- frozen yogurt $1 / 2$ cup
- decaffeinated tea 1 cup
- non- dairy creamer 2 Tbsp
- margarine 1 tsp
- salt $1 / 4$ tsp
- sugar 1 tsp

This Sample Diet Provides the Following

## Level 2 <br> Minced Foods

Foods in this group should be minced/chopped into very small pieces (1/8 inch). The flecks of food are similar in size to sesame seeds.

## <Hot Foods

Minced meat, fish, poultry
Minced stuffed fish
Flaked fish
Junior baby meats
Minced soft cooked, scrambled, poached eggs
Minced soufflé \& omelets
Minced soft French toast
Minced soft pancakes
Cooked cereals
Minced potatoes
Minced buttered or Alfredo noodles
Minced vegetables
Creamed soups
Puréed vegetables soup or alphabet soup
Minced scalloped apples
Gravies

Sauces: cheese, creamed, barbecue, tomato, white
Decaffeinated coffee or tea

## Cold Foods

Cottage cheese
Junior baby fruit
Semi-thickened juices
Nectars
Ripe mashed bananas
Minced canned fruit
Pineapple sauce
Milk
Milkshakes
Custard
Puddings, including rice \& tapioca
Yogurt
Fruit ice, Italian ice, sherbet
Whipped gelatin
Junior baby desserts
Sugar, syrup, honey, jelly

Cream
Margarine

## Sample Menu, Level 2

## Breakfast

- orange juice $1 / 2$ cup
- oatmeal 1/2 cup
- scrambled eggs with cheese $1 / 2$ cup
- decaffeinated tea 1 cup
- whole milk 1 cup
- non-dairy creamer 2 Tbsp
- ketchup 1 Tbsp
- margarine 1 tsp
- salt $1 / 4$ tsp
- sugar 2 tsp


## Lunch

- pineapple juice $1 / 2$ cup
- minced beef 3 oz
- gravy 2 Tbsp
- mashed potatoes 1/2 cup
- minced fresh broccoli 1/2 cup
- applesauce 1/2 cup
- decaffeinated coffee 1 cup
- non- dairy creamer 2 Tbsp
- margarine 1 tsp


## Dinner

- puréed turkey barley soup 3/4 cup
- minced Hawaiian chicken 3 oz
- mashed potatoes $1 / 2$ cup
- puréed spinach 1/2 cup
- frozen yogurt 1/2 cup
- decaffeinated tea 1 cup
- non- dairy creamer 2 Tbsp
- margarine 1 tsp
- salt $1 / 4$ tsp
- sugar 1 tsp


## This Sample Diet Provides the Following



## Sample Menu, Level 3

- orange juice $1 / 2$ cup
- oatmeal $1 / 2$ cup
- scrambled eggs with cheese $1 / 2$ cup
- decaffeinated tea 1 cup
- whole milk 1 cup
- non-dairy creamer 2 Tbsp
- ketchup 1 Tbsp
- margarine 1 tsp
- salt $1 / 4$ tsp
- sugar 2 tsp
- pineapple juice $1 / 2$ cup
- ground beef 3 oz
- gravy 2 Tbsp
- mashed potatoes $1 / 2$ cup
- cooked spinach 1/2 cup
- applesauce $1 / 2$ cup
- decaffeinated coffee 1 cup
- whole milk
- non-dairy creamer 2 Tbsp
- margarine 1 tsp
- salt $1 / 4$ tsp
- sugar 1 tsp
- puréed turkey barley soup 3/4 cup
- ground Hawaiian chicken 3 oz
- mashed potatoes 1/2 cup
- ground fresh broccoli 1/2 cup
- frozen yogurt 1/2 cup
- decaffeinated tea 1 cup
- non- dairy creamer 2 Tbsp
- margarine 1 tsp
- salt $1 / 4$ tsp
- sugar 1 tsp


## This Sample Diet Provides the Following

| Calories | 2022 | Fat | 80 gm |
| :--- | :--- | :--- | :--- |
| Protein | 111 gm | Sodium | 2992 mg |
| Carbohydrates | 231 gm | Potassium | 4182 mg |

## Level 4 <br> Chopped Foods

Foods in this group should be chopped into $1 / 2$ - inch pieces. These pieces of food are similar in size to uncooked elbow macaroni or croutons (small bread cubes).

## Hot Foods

Chopped meat or poultry
Chopped Swedish meatballs
Meat salads (ground or flaked meat)
Flaked fish
Poached or scrambled eggs
Soufflés and omelets

Cooked cereals
Chopped French toast or pancakes
Chopped noodles or pasta (no rice)
Chopped cooked vegetables (no frozen peas, corn, or mixed vegetables)

Chopped canned small sweet peas
Creamed soup or vegetable soup
Canned chicken noodle soup
Chopped potatoes (all kind)

## Cold Foods

Cottage cheese
Yogurt
Milk

Milkshakes

Soft, cold, dry cereal
Soft bread (if approved by speech or occupational therapy)

Fruit juice or nectars
Chopped canned fruit

Canned fruit cocktail

Pudding, mousse, custard

Ice cream
Fruit ice, Italian ice, sherbet
Cream cheese
Whipped topping

Sauces: cheese, creamed, barbecue, tomato, white

Decaffeinated tea or coffee

## Breakfast

- orange juice 1/2 cup
- oatmeal 1/2 cup
- scrambled eggs with cheese $1 / 2$ cup
- decaffeinated tea 1 cup
- whole milk 1 cup
- non-dairy creamer 2 Tbsp
- ketchup 1 Tbsp
- margarine 1 tsp
- salt $1 / 4$ tsp
- sugar 2 tsp


## Dinner

- turkey barley soup 3/4 cup
- chopped Hawaiian chicken 3 oz
- mashed potatoes 1/2 cup
- cooked spinach 1/2 cup
- frozen yogurt 1/2 cup
- decaffeinated tea 1 cup
- non-dairy creamer 2 Tbsp
- margarine 1 tsp
- salt $1 / 4$ tsp
- sugar 1 tsp
- pineapple juice 1/2 cup
- chopped beef 3 oz
- gravy 2 Tbsp
- mashed potatoes 1/2 cup
- chopped fresh broccoli 1/2 cup
- applesauce 1/2 cup
- decaffeinated coffee 1 cup
- non- dairy creamer 2 Tbsp
- margarine 1 tsp
- salt $1 / 4$ tsp
- sugar 1 tsp


## Lunch

This Sample Diet Provides the Following

2097

113 gm

243 gm
Potassium

82 gm

3213 mg

4201 mg

## Level 5 Modified Regular Foods

Foods in this group are soft, moist, regularly textured foods

## Hot Foods

Soft, moist meat, fish, poultry

Baked fish

Meat Salads

Soufflés and omelets
Eggs
Stuffed shells

Spaghetti with meat sauce

## Cold Foods

Soft cheeses

Cottage cheese
Cream cheese

Yogurt
Milk

Milkshakes

Cold dry cereals (no nuts, dried fruit, coconut)


| Calories | 2851 | Fat | 120 gm |
| :--- | :--- | :--- | :--- |
| Protein | 129 gm | Sodium | 4062 mg |
| Carbohydrates | 327 gm | Potassium | 4609 mg |

## Commercial Thickening Agents

## Product

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## Manufacturer

American Institutional Products, Inc

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## Textures/ Consistencies of Foods

The following are examples of medium and thick liquids and foods.

- Medium (nectar consistency):
- eggnog
- fruit nectars
- (apricot, peach, pear)
- honey
- thick creamed soups
- soft set pudding with added
- milk
- tomato juice
- buttermilk
- ice cream
- (no nuts or fruit chunks)
- milkshakes
- Thick (yogurt or pudding consistency):
- cooked hot cereal
- pudding
, custard
- gravy
- yogurt (no nuts or fruit chunks)
- cottage cheese mixed in
- blender with milk or fruit
- thick malt and milkshakes


## Thickening and Thinning Agents

Foods can be thickened or thinned to individual requirements. Many foods can be used to change a liquid to a different consistency The amount of thickening agent needed to reach a certain food consistency varies depending on the food being thickened and on the thickening agent used.

- Add hot milk-based liquids (hot milk or cream) to puréed soups, puréed vegetables, or cooked cereal.
- Add other hot liquids (broth, gravy, sauces) to mashed potatoes, puréed or ground meats, and puréed or chopped vegetables. Butter or melted margarine may also be used.
- Add cold milk-based liquids to cream, yogurt, cold soups, puréed fruits, or puddings and custards.


## How to Thicken Liquids and Foods

- Add baby rice or commercial thickener to hot milk-based liquids.
- Add potato flakes, mashed potatoes, or flaked baby cereal to other hot liquids (soups, sauces, gravies).
- Add plain unflavored gelatin, puréed fruits, banana flakes, or a commercial thickener to cold liquids
- Add potato flakes, mashed potatoes, thick sauces or gravies, canned puréed or strained meat (baby food), or a commercial thickener to puréed soups.
- Add flaked baby cereal, flavored gelatin, cooked cream of rice or wheat cereal, or a commercial thickener to puréed fruits.
- Add mashed white or sweet potatoes, potato flakes, sauces, or commercial thickener to puréed vegetables.


## If a Food is Too Thin, Add One of the Following:

- baby cereal
- banana flakes
- bread crumbs
- cornstarch
- cooked cereals (cream of wheat or rice)
- custard mix
- graham cracker crumbs
- gravy
- instant potato flakes
- mashed potatoes
- plain unflavored gelatin powder
- plain sauces (white, cheese, tomato)
- puréed fruits (baby food)
- puréed meats (baby food)
- puréed vegetables (baby food)
- saltine cracker crumbs


## If a Food is Too Thick, Add One of the Following:

- broth
- bouillon
- gravy
- juice
- liquid flavored gelatin
- melted hot butter/margarine
- milk (hot or cold)
- plain yogurt
- strained puréed soups


## Recipes

## Fruit Shake

In a blender, place 1-1/2 cups of fresh, frozen, or canned fruit with 1 cup fortified milk. Mix until smooth. Fruit Blend In a blender, mix $1 / 4$ cup apple juice, $1 / 4$ cup orange juice, and 1 cup canned peaches or pears. Mix until smooth. HighProtein Smoothies
In a blender, mix 1 cup fruit-flavored yogurt and 1 cup fortified milk with soft, fresh, peeled fruit or soft, canned fruit, and 1 cup of cottage cheese. Mix until smooth. Cottage Cheese Pudding
Mix together $1 / 4$ cup cottage cheese and 3 T baby fruit. Chill. Creamed Vegetable Soup
In a blender, add $1 / 2$ cup strained or very soft cooked vegetable; $1 / 2$ cup fortified milk, cream, or plain yogurt, 1 tsp margarine; salt, onion powder, and crushed dried parsley flakes to taste. Mix to desired consistency.

## Other Tips to Make Foods Easier to Chew and Swallow

1. To avoid forming a hard crust on the top of a food or around the edges, cook the food in a covered casserole dish. To make soft scrambled eggs, cook the eggs in the top of a double boiler.
2. To keep meat or fish moist, cook in tomato juice or tomato soup.
3. To make puréed meat, first drain soft, cooked meat. Place meat in a food processor or blender to make a paste. Add hot liquid (broth) to the paste and thin to desired consistency.

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