# Dysphagia Diet 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

treatment will be required.

# 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 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.

## **CAUTION:**

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.

Hot Foods Cold Foods

Puréed meats, poultry, & fish Puréed cottage cheese Puréed tuna, ham, & chicken salad Puréed fruit Thickened juices & nectars Pureed scrambled eggs & cheese Baby cereals Thickened milk or eggnog Thinned cooked cereals (no lumps) Malts Puréed French toast or pancakes Thick milkshakes Mashed potatoes Ice cream Puréed parsley, au gratin, scalloped potatoes, candied sweet potatoes Fruit or Italian ice, sherbet Puréed buttered or Alfredo noodles Plain yogurt Puréed vegetables (no corn or peas) Smooth & drinkable yogurt Puréed soups & creamed soups Smooth pudding, mousse, custard Puréed scalloped apples Whipped gelatin Gravies Sugar, syrup, honey, jelly Sauces: cheese, tomato, barbecue, white, creamed Cream Decaffeinated coffee or tea Non-dairy creamer Margarine Mayonnaise Ketchup, mustard

## Sample Menu, Level 1

Lunch

Dinner

Breakfast

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<ul> <li>orange juice 1/2 cup</li> <li>cream of wheat 1/2 cup</li> <li>scrambled eggs with cheese 1/2 cup</li> <li>decaffeinated tea 1 cup</li> <li>whole milk 1 cup</li> <li>non-dairy creamer 2 Tbsp</li> <li>ketchup 1 Tbsp</li> <li>margarine 1 tsp</li> <li>salt 1/4 tsp</li> <li>sugar 2 tsp</li> </ul>	<ul> <li>pineapple juice 1/2 cup</li> <li>puréed beef 3 oz</li> <li>gravy 2 Tbsp</li> <li>mashed potatoes 1/2 cup</li> <li>puréed fresh broccoli 1/2 cup</li> <li>apple sauce 1/2 cup</li> <li>decaffeinated coffee 1 cup</li> <li>non-dairy creamer 2 Tbsp</li> <li>margarine 1 tsp</li> <li>sult 1/4 tsp</li> <li>sugar 1 tsp</li> </ul>	<ul> <li>puréed turkey barley soup 3/4 cup</li> <li>puréed Hawaiian chicken 3 oz</li> <li>mashed potatoes         1/2 cup</li> <li>puréed spinach         1/2 cup</li> <li>frozen yogurt 1/2 cup</li> <li>decaffeinated tea         1 cup</li> <li>non-dairy creamer         2 Tbsp</li> <li>margarine 1 tsp</li> <li>sugar 1 tsp</li> </ul>

# This Sample Diet Provides the Following

 Calories
 1657
 Fat
 61 gm

 Protein
 92 gm
 Sodium
 2590 mg

## Level 2 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<="" th=""><th>Cold Foods</th></hot>	Cold Foods
Minced meat, fish, poultry	Cottage cheese
Minced stuffed fish	Junior baby fruit
Flaked fish	Semi-thickened juices
Junior baby meats	Nectars
Minced soft cooked, scrambled, poached eggs	Ripe mashed bananas
Minced soufflé & omelets	Minced canned fruit
Minced soft French toast	Pineapple sauce
Minced soft pancakes	Milk
Cooked cereals	Milkshakes
Minced potatoes	Custard
Minced buttered or Alfredo noodles	Puddings, including rice & tapioca
Minced vegetables	Yogurt
Creamed soups	Fruit ice, Italian ice, sherbet
Puréed vegetables soup or alphabet soup	Whipped gelatin
Minced scalloped apples	Junior baby desserts
Gravies	Sugar, syrup, honey, jelly
Sauces: cheese, creamed, barbecue, tomato, white	Cream
Decaffeinated coffee or tea	Margarine

# Sample Menu, Level 2

Dinner

Lunch

Breakfast

• orange juice 1/2 cup	■ pineapple juice 1/2 cup	puréed turkey barley soup 3/4 cup
■ oatmeal 1/2 cup	■ minced beef 3 oz	<ul><li>minced Hawaiian</li><li>chicken 3 oz</li></ul>
<ul><li>scrambled eggs with cheese 1/2 cup</li></ul>	gravy 2 Tbsp	
<ul><li>decaffeinated tea 1 cup</li></ul>	mashed potatoes 1/2 cup	■ mashed potatoes 1/2 cup
whole milk 1 cup	<ul><li>minced fresh broccoli</li></ul>	<ul><li>puréed spinach 1/2 cup</li></ul>
<ul><li>non-dairy creamer</li></ul>	1/2 cup	■ frozen yogurt 1/2 cup
2 Tbsp	<ul><li>applesauce 1/2 cup</li></ul>	<ul><li>decaffeinated tea 1 cup</li></ul>
ketchup 1 Tbsp	<ul> <li>decaffeinated coffee</li> </ul>	non-dairy creamer 2 Tbsp
■ margarine 1 tsp	1 cup	margarine 1 tsp
salt 1/4 tsp	<ul><li>non-dairy creamer 2 Tbsp</li></ul>	■ salt 1/4 tsp
■ sugar 2 tsp	margarine 1 tsp	■ sugar 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 3 Ground Foods

Foods in this group should be ground/diced into 1/4-inch pieces. These pieces of food are similar in size to rice.

Hot Foods	Cold Foods
Ground meat, fish, poultry	Cottage cheese
Ground meat salads (no raw eggs)	Smooth fruited yogurt
Ground Swedish meatballs	Fruit juices or nectars
Scrambled eggs or soufflés	Ground canned fruit
Ground poached eggs	Crushed pineapple
Cooked cereals	Ripe bananas
Ground soft French toast	Lemonade/Limeade (no pulp)
Ground potatoes	Milk
Ground noodles	Ice cream
Ground baked potato (no skin)	Custard
Ground well-cooked frozen vegetables (no corn, peas, or mixed vegetables)	Puddings or mousse
Ground canned vegetables	Fruit ice, Italian ice, sherbet
Creamed soups	Cream
Puréed vegetables soup or alphabet soup	Non-dairy creamer
Ground scalloped apples	Margarine
Gravies	Mayonnaise
Sauces: cheese, creamed, barbecue, tomato, white	Ketchup
Decaffeinated tea or coffee	Mustard

Sample Menu, Level 3

Breakfast Lunch Dinner

- 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 creamer2 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 coffee1 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 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	Cold Foods
Chopped meat or poultry	Cottage cheese
Chopped Swedish meatballs	Yogurt
Meat salads (ground or flaked meat)	Milk
Flaked fish	Milkshakes
Poached or scrambled eggs	Soft, cold, dry cereal
Soufflés and omelets	Soft bread (if approved by speech or occupational therapy)
Cooked cereals	Fruit juice or nectars
Chopped French toast or pancakes	Chopped canned fruit
Chopped noodles or pasta (no rice)	Canned fruit cocktail
Chopped cooked vegetables (no frozen peas, corn, or mixed vegetables)	Pudding, mousse, custard
Chopped canned small sweet peas	Ice cream
Creamed soup or vegetable soup	Fruit ice, Italian ice, sherbet
Canned chicken noodle soup	Cream cheese
Chopped potatoes (all kind)	Whipped topping

Gravies Whipped gelatin

Bacon dressing Sugar, syrup, honey, jam, jelly

Sauces: cheese, creamed, barbecue, tomato, white

Decaffeinated tea or coffee

## Sample Menu, Level 4

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

# This Sample Diet Provides the Following

Calories	2097	Fat	82 gm
Protein	113 gm	Sodium	3213 mg
Carbohydrates	243 gm	Potassium	4201 mg
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# Level 5 Modified Regular Foods

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

Hot Foods	Cold Foods
Soft, moist meat, fish, poultry	Soft cheeses
Baked fish	Cottage cheese
Meat Salads	Cream cheese
Soufflés and omelets	Yogurt
Eggs	Milk
Stuffed shells	Milkshakes
Spaghetti with meat sauce	Cold dry cereals (no nuts, dried fruit, coconut)

Cooked cereal Crackers French toast or pancakes Soft breads (no hard rolls) Toast Fruit juices or nectars Noodles or pasta (no rice) Canned fruit Potatoes (all types) Ripe bananas Soft, cooked vegetables (no corn, lima, or baked beans) Peeled, ripe, fresh fruit Creamed soups or vegetable soup Cakes (no nuts, dried fruit, coconut) Canned chicken noodle soup Plain doughnuts Gravies Ice cream Bacon dressing Pudding, mousse, custard Sauces: cheese, creamed, barbecue, tomato, white Fruit ice, Italian ice, sherbet Decaffeinated tea or coffee Whipped gelatin Regular gelatin Canned fruited gelatin molds Sugar, syrup, honey, jam, jelly Cream

Non-dairy creamer

Margarine

Oil

Mayonnaise

Ketchup

Mustard

## Sample Menu, Level 5

#### **Breakfast** Lunch **Dinner** orange juice 1/2 cup pineapple juice 1/2 cup turkey barley soup 3/4 cup

■ oatmeal 1/2 cup

cheese omelet

■ toast 1 slice

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

■ jelly 2 tsp

hamburger on bun 3 oz

steak fries 1/2 cup

green beans 1/2 cup

■ applesauce 1/2 cup

decaffeinated coffee

1 cup

whole milk 1 cup

non-dairy creamer 2 Tbsp

margarine 1 tsp

salt 1/4 tsp

■ sugar 1 tsp

ketchup 2 Tbsp

Hawaiian chicken 3 oz

mashed potatoes 1/2 cup

■ fresh broccoli 1/2 cup

■ frozen yogurt 1/2 cup

decaffeinated tea 1 cup

non-dairy creamer 2 Tbsp

saltine crackers 6

margarine 1 tsp

salt 1/4 tsp

sugar 1 tsp

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

#### **Commercial Thickening Agents**

Product	Manufacturer	Phone
Thick n Easy	American Institutional Products, Inc.	(717) 569-1866
Thick-it	Milani Foods, Inc.	(800) 333-0033
Thick Set	Bernard Fine Foods, Inc.	(800) 538-3663
Thixx	Bernard Fine Foods, Inc.	(800) 323-3663

## **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.

# **How to Thin Liquids**

- 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. **High-Protein 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 pureed 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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