

NATIONAL DYSPHAGIA DIET (NDD)

LEVEL 1: DYSPHAGIA PUREED

Description: This diet consists of pureed, homogenous, and cohesive foods. Food should be “pudding-like.” No coarse textures, raw fruits or vegetables, nuts, and so forth allowed. Any foods that require bolus formation, controlled manipulation, or mastication are excluded.

Rationale: This diet is designed for people who have moderate to severe dysphagia, with poor oral phase abilities and reduced ability to protect their airway. Close or complete supervision and alternate feeding methods may be required.

Food Textures for NDD Level 1: Dysphagia Pureed

Food Groups	Recommended	Avoid	If thin liquids allowed, also may have:
Beverages	Any smooth, homogenous beverages without lumps, chunks, or pulp. Beverages may need to be thickened to appropriate consistency.	Any beverages with lumps, chunks, seeds, pulp, etc.	Milk, juices, coffee, tea, sodas, carbonated beverages, alcoholic beverages, nutritional supplements. Ice chips.
Breads	Commercially or facility-prepared pureed bread mixes, pre-gelled slurried breads, pancakes, sweet rolls, Danish pastries, French toast, etc., that are gelled through entire thickness of product.	All other breads, rolls, crackers, biscuits, pancakes, waffles, French toast, muffins, etc.	

Food Groups	Recommended	Avoid	If thin liquids allowed, also may have:
Cereals <i>Cereals may have just enough milk to moisten.</i>	Smooth, homogenous, cooked cereals such as farina-type cereals. Cereals should have a “pudding-like” consistency. Allow Oatmeal unless specified by SLP	All dry cereals and any cooked cereals with lumps, seeds, chunks.	Enough milk or cream with cereals to moisten; they should be blended in well.
Desserts	Smooth puddings, custards yogurt, pureed desserts and soufflés.	Ices, gelatins, frozen juice bars, cookies, cakes, pies, pastry, coarse or textured puddings, bread and rice pudding, fruited yogurt. <i>These foods are considered thin liquids and should be</i>	Frozen malts, yogurt, milk shakes, eggnog, nutritional supplements, ice cream, sherbet, and plain regular or sugar-free gelatin.

		<i>avoided if thin liquids are restricted:</i> Frozen malts, milk shakes, frozen yogurt, eggnog, nutritional supplements, ice cream, sherbet, regular or sugar-free gelatin, or any foods that become thin liquid at either room (70°F) or body temperature (98°F).	
Fats	Butter, margarine, strained gravy, sour cream, mayonnaise, cream cheese, whipped topping. Smooth sauces such as white sauce, cheese sauce or hollandaise sauce.	All fats with coarse or chunky additives.	
Fruits	Pureed fruits or well-mashed fresh bananas. Fruit juices without pulp, seeds, or chunks (may need to be thickened to appropriate consistency if thin liquids are restricted).	Whole fruits (fresh, frozen, canned, dried).	Unthickened fruit juices.
Meats and Meat Substitutes	Pureed meats. Braunschweiger.	Whole or ground meats, fish, or poultry. Non-pureed lentils or legumes.	

Food Groups	Recommended	Avoid	If thin liquids allowed, also may have:
Meats and Meat Substitutes (continued)	Soufflés that are smooth and homogenous. Softened tofu mixed with moisture. Hummus or other pureed legume spread (refried beans). Guacamole.	Cheese, cottage cheese. Peanut butter, unless pureed into foods correctly. Non-pureed fried, scrambled, or hard-cooked eggs.	
Potatoes and Starches	Mashed potatoes with sauce, pureed potatoes with gravy, butter, margarine, or sour cream. Well-cooked pasta, noodles, bread dressing, or rice that have been pureed in a blender to smooth, homogenous consistency.	All other potatoes, rice, noodles. Plain mashed potatoes (too dry without gravy), cooked grains. Non-pureed bread dressing.	

Soups	Soups that have been pureed in a blender or strained. May need to be <u>thickened</u> to appropriate viscosity.	Soups that have chunks, lumps, etc.	Broth and other thin, strained soups.
Vegetables	Pureed vegetables without chunks, lumps, pulp, or seeds Tomato paste or sauce without seeds. Tomato or vegetable juice (may need to be thickened to appropriate consistency if juice is thinner than prescribed liquid consistency.)	All other vegetables that have not been pureed. Tomato sauce with seeds, thin tomato juice.	Thin tomato or vegetable juices.
Miscellaneous	Sugar, artificial sweetener, salt, finely ground pepper, and spices. Ketchup, mustard, BBQ sauce and other smooth sauces. Honey, smooth jellies. Very soft, smooth candy such as truffles.	Coarsely ground pepper and herbs. Chunky fruit preserves and seedy jams. Seeds, nuts, sticky foods. Chewy candies such as caramels or licorice.	Smooth chocolate candy with no nuts, sprinkles, etc.

LEVEL 2: DYSPHAGIA MECHANICALLY ALTERED (DYSPHAGIA GROUND)

Description: This level consists of foods that are moist, soft-textured, and easily formed into a bolus. Meats are ground or are minced no larger than one-quarter-inch pieces; they are still moist, with some cohesion. All foods from NDD Level 1 are acceptable at this level.

Rationale: This diet is a transition from the pureed textures to more solid textures. Chewing ability is required. The textures on this level are appropriate for individuals with mild to moderate oral and/or pharyngeal dysphagia. Patients should be assessed for tolerance to mixed textures. It is expected that some mixed textures are tolerated on this diet.

Food Textures for NDD Level 2: Dysphagia Ground

(Includes all foods on NDD Level 1: Dysphagia Pureed in addition to the foods listed below)

Food Groups	Recommended	Avoid	If thin liquids allowed, also may have:
Beverages	All beverages with minimal amounts of texture, pulp, etc. (Any texture should be suspended in the liquid and should not precipitate out.) (May need to be thickened, depending on liquid consistency recommended.)		Milk, juices, coffee, tea, sodas, carbonated beverages, alcoholic beverages if allowed, nutritional supplements. Ice chips.
Breads	Soft pancakes, well moistened with syrup or sauce. Soft muffins, donuts if softened with milk or coffee. Pureed bread mixes, pre-gelled or slurried breads that are gelled through entire thickness.	All others.	
Cereals Cereals may have 1/4 cup milk or just enough milk to moisten if thin liquids are restricted. The moisture should be well-blended into food.	Cooked cereals with little texture, including oatmeal. Slightly moistened dry cereals with little texture such as corn flakes, Rice Krispies®, Wheaties®, etc.	Very coarse cooked cereals that may contain flax seed or other seeds or nuts. Whole-grain dry or coarse cereals.	Milk or cream for cereals.

Food Groups	Recommended	Avoid	If thin liquids allowed, also may have:
Cereals (continued)	Unprocessed wheat bran stirred into cereals for bulk. Note: If thin liquids are restricted, it is important that all of the liquid is absorbed into the cereal.	Cereals with nuts, seeds, dried fruit and/or coconut.	
Desserts	<p> pudding, custard.</p> <p>Soft fruit pies with bottom crust only.</p> <p>Crisps and cobblers without seeds or nuts and with soft breading or crumb mixture.</p> <p>Canned fruit with NO liquid (Excluding pineapple)</p> <p>Soft, moist cakes with icing or “slurried” cakes.</p> <p>Pre-gelled cookies or soft, moist cookies that have been “dunked” in milk, coffee, or other liquid,</p>	<p>Dry, coarse cakes and cookies.</p> <p>Anything with nuts, seeds, coconut, pineapple, or dried fruit,</p> <p>Breakfast yogurt with nuts.</p> <p>Rice or bread pudding.</p> <p>These foods are considered thin liquids and should be avoided if thin liquids are restricted: Frozen malts, milk shakes, frozen yogurt, eggnog, nutritional supplements, ice cream, sherbet, regular or sugar-free gelatin, or any foods that become thin liquid at either room (70°F) or body temperature (98°F).</p>	<p>Ice cream, sherbet, malts, nutritional supplements, frozen yogurt, and other ices.</p> <p>Plain gelatin or gelatin with canned fruit, excluding pineapple.</p>
Fats	Butter, margarine, cream for cereal (depending on liquid consistency recommendations), gravy, cream sauces, mayonnaise, salad dressings, cream cheese, cream cheese spreads with soft additives, sour cream, sour cream dips with soft additives, whipped toppings.	All fats with coarse or chunky additives.	Cream for cereal.
Fruits	Soft drained canned or cooked fruits without seeds or skin. Fresh soft/ripe banana.	Fresh or frozen fruits. Cooked fruit with skin or seeds	Thin fruit juices. Watermelon without seeds.

Food Groups	Recommended	Avoid	If thin liquids allowed, also may
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Fruits <i>(continued)</i>	Fruit juices with small amount of pulp. If thin liquids are restricted, fruit juices should be thickened to appropriate viscosity.	Dried fruits. Fresh, canned, or cooked pineapple.	
Meats, Meat Substitutes, Entrees Meat pieces should not exceed ¼ inch cube and should be tender.	<p>Moistened ground meat, poultry, or fish. Moist ground meat must be served with gravy or sauce.</p> <p>Casseroles without rice.</p> <p>Moist macaroni and cheese, well-cooked pasta with meat sauce, tuna-noodle casserole, soft, moist lasagna.</p> <p>Moist meatballs, meat loaf, or fish loaf.</p> <p>Protein salads such as tuna or egg without large chunks, celery, or onion.</p> <p>Cottage cheese, smooth quiche without large chunks</p> <p>Poached, scrambled, or soft-cooked eggs (egg yolks should not be “runny” but should be moist and mashable with butter, margarine, or other moisture added to them). (Cook eggs to 160°F or use pasteurized eggs for safety.)</p> <p>Soufflés may have small soft chunks.</p> <p>Tofu.</p> <p>Well-cooked, slightly mashed, moist legumes such as baked beans.</p>	<p>Dry meats, tough meats (such as bacon, sausage, hot dogs, bratwurst).</p> <p>Dry casseroles or casseroles with rice or large chunks.</p> <p>Cheese slices and cubes.</p> <p>Peanut butter.</p> <p>Hard-cooked or crisp fried eggs.</p> <p>Sandwiches.</p> <p>Pizza.</p>	

Food Groups	Recommended	Avoid	If thin liquids allowed, also may have:
Meats, Meat Substitutes, Entrees	All meats or protein substitutes should be served		

(continued)	with sauces, or moistened to help maintain cohesiveness in the oral cavity.		
Potatoes and Starches	Well-cooked, moistened, boiled, baked, or mashed potatoes. Well-cooked shredded hash brown potatoes that are not crisp. (All potatoes need to be moist and in sauces.) Well-cooked noodles in sauce. Spaetzel or soft dumplings that have been moistened with butter or gravy.	Potato skins and chips. Fried or french-fried potatoes. Rice.	
Soups	Puree the soups to avoid large chunks, as it may be difficult to provide a soup with ground meat and soft-small vegetables (Soups may need to be thickened to appropriate consistency, if soup is thinner than prescribed liquid consistency.)	Soups with large chunks of meat and vegetables. Soups with rice, corn, peas.	
Vegetables	All soft, well-cooked vegetables. Vegetables should be < 1/2 inch. Should be easily mashed with a fork	Cooked corn and peas. No vegetable medley with corn, peas, beans, lima beans. Broccoli, cabbage, Brussels sprouts, asparagus, or other fibrous, non-tender or rubbery cooked vegetables.	
Miscellaneous	Jams and preserves without seeds, jelly. Sauces, salsas, etc., that may have small tender chunks < 1/2 inch. Soft, smooth chocolate bars that are easily chewed.	Seeds, nuts, coconut, sticky foods. Chewy candies such as caramel and licorice.	

LEVEL 3: DYSPHAGIA ADVANCED

Description: This level consists of food of nearly regular textures with the exception of very hard, sticky, or crunchy foods. Foods still need to be moist and should be in “bite-size” pieces at the oral phase of the swallow.

Rationale: This diet is a transition to a regular diet. Adequate dentition and mastication are required. The textures of this diet are appropriate for individuals with mild oral and/or pharyngeal phase dysphagia. Patients should be assessed for tolerance of mixed textures. It is expected that mixed textures are tolerated on this diet.

Food Textures for NDD Level 3: Dysphagia Advanced

Food Groups	Recommended	Avoid	If thin liquids allowed, also may have:
Beverages	Any beverages, depending on recommendations for liquid consistency.		Milk, juices, coffee, tea, sodas, carbonated beverages, alcoholic beverages, nutritional supplements. Ice chips
Breads	Any soft breads, biscuits, muffins, pancakes, French Toast, waffles, etc. Toast and English muffins if not dry. Need to add adequate syrup, jelly, margarine, butter, etc., to moisten well.	Tough, dry, crusty breads such as French bread or baguettes. Bagels	
Cereals Cereals may have 1/4 cup milk or just enough milk to moisten if thin liquids are restricted.	All well-moistened cereals.	Coarse or dry cereals such as shredded wheat or All Bran®.	
Desserts	All others except those on Avoid list.	Dry cakes, cookies that are chewy or very dry. Anything with nuts, seeds, dry fruits, coconut, and pineapple. <i>These foods are considered</i>	Malts, milk shakes, frozen yogurts, ice cream, and other frozen desserts. Nutritional supplements, gelatin, and any other desserts of thin liquid

		<p><i>thin liquids an should b e avoided if thin liquids are restricted:</i></p> <p>Frozen malts, milk shakes, frozen yogurt, eggnog, nutritional supplements, ice cream, sherbet, regular or sugar-free gelatin or any foods that become thin liquid at either room (70°F) or body temperature (98°F).</p>	consistency when in the mouth.
Fats	All other fats except those on Avoid list	All fats with coarse, difficult-to-chew, or chunky additives such as cream-cheese spread with nuts or pineapple.	
Fruits	<p>All canned and cooked fruits.</p> <p>Soft, peeled fresh fruits such as peaches, nectarines, kiwi, mangos, cantaloupe, honeydew, watermelon (without seeds).</p> <p>Soft berries with small seeds such as strawberries.</p>	<p>Difficult-to-chew fresh fruits such as apples or pears, due to skins.</p> <p>Raspberries, due to seeds</p> <p>Stringy, high-pulp fruits such as papaya, pineapple, or mango.</p> <p>Fresh fruits with difficult-to-chew peels such as grapes.</p> <p>Uncooked dried fruits such as prunes and apricots.</p> <p>Fruit leather, fruit roll-ups, fruit snacks, dried fruits.</p>	Any fruit juices.
Meats, Meat Substitutes, Entrees	<p>Thin-sliced, tender, meats and poultry.</p> <p>Kitchen or nursing staff should cut-up the meats into small bite size pieces.</p> <p>Well-moistened fish.</p> <p>Eggs prepared any way.</p>	<p>Tough, dry meats and poultry.</p> <p>Dry fish or fish with bones.</p> <p>Chunky peanut butter.</p> <p>Yogurt with nuts or coconut.</p>	

	Yogurt without nuts or coconut.		
	Casseroles with <u>small</u> chunks of meat, ground meats, or tender meats.		

Food Groups	Recommended	Avoid	If thin liquids allowed, also may have:
Potatoes and Starches	All, including rice, wild rice, moist bread stuffing, and tender, fried potatoes.	Tough, crisp-fried potatoes. Potato skins. Dry bread dressing.	
Soups	All soups, except those on the Avoid list. Strained corn or clam chowder. (May need to be thickened to appropriate consistency if soup is thinner than prescribed liquid consistency.)	Soups with tough meats. Corn or clam chowders. Soups that have large chunks of meat or vegetables > 1 inch.	All thin soups, except those on Avoid list. Broth and bouillon.
Vegetables	All cooked, tender vegetables, Shredded lettuce.	All raw vegetables except shredded lettuce. Cooked corn. Non-tender or rubbery cooked vegetables.	
Miscellaneous	All seasonings and sweeteners. All sauces. Non-chewy candies without nuts, seeds, or coconut. Jams, jellies, honey, preserves.	Nuts, seeds, coconut. Chewy caramel or toffee-type candies. Candies with nuts, seeds, or coconut.	

LIQUIDS

1. THIN LIQUID: 1-50 centiPoise (cP)
2. NECTAR THICK LIQUID: 51-350 cP
3. HONEY THICK LIQUID: 351-1,750 cP
4. SPOON THICK LIQUID/PUDDING THICK LIQUID: >1,750 cP

Reference:

National Dysphagia Diet Task Force (2002). *National Dysphagia Diet: Standardization for Optimal Care*. Chicago, IL: American Dietetic Association.