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Demystifying Dysphagia

Sound Strategies and Creative Tips for Meeting the Latest IDDSI Guidelines

Dysphagia, or difficulty swallowing, is a condition that impacts as many as one in 25 adults,¹ more than one in eight nursing home residents,² and nearly one in three hospital patients.³ Given the scope of the problem, it is evident that there is a need for safe and well-defined standards.

The International Dysphagia Diet Standardisation Initiative (IDDSI) started in 2013 when an international committee of health professionals and researchers convened with the goal of improving the lives of the 590 million people worldwide living with dysphagia⁴ and simplifying their care through global standardization of dysphagia diets.

Prior to the introduction of the IDDSI Framework, significant variation existed in dysphagia guidelines between countries and even between facilities within the same country. Interpretation of guidelines was inconsistent and subjective and could sometimes lead to unsafe eating experiences for those with dysphagia. IDDSI has provided clearly defined terminology and testing methods and an internationally valid framework to deliver consistently safe nutrition to individuals living with dysphagia around the globe.

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Jill Connelly, Regional Dietitian with HCF Management (left), and Maureen Petrus, Nutrition Services Supervisor at Edinboro Manor, utilize a robust menu of smoothies.

THE IDDSI FRAMEWORK

Created to serve an international population of all ages, the IDDSI Framework utilizes a **color, number, and label** for each dysphagia level in order to limit errors in prescribing, preparing, and assembling food. It creates a common and consistent language that all organizations can use as a true foundation for safety.

The IDDSI Framework differs significantly from the previously-used National Dysphagia Diet (NDD) in that it contains meaningful, clear definitions and detailed descriptions of how to test foods and drinks to assign dysphagia levels. Considering the scope of the changes from NDD to IDDSI, foodservice professionals may need time to learn and adapt to new terminology and embrace testing methods—easily adopted using commonly available implements such as syringes, forks, and spoons—while planning implementation.

The IDDSI website (iddsi.org) and app (available free through the App Store or Google Play) offer a wealth of resources to help users gain a deeper understanding of the IDDSI framework and learn how to test and identify food and drink for each level.

TAKING A CLOSER LOOK

As healthcare facilities work towards full implementation, questions arise regarding how food and drinks fit into the IDDSI framework. The IDDSI guidelines provide testing methods to assist care providers in determining how a given food or drink measures up.

The IDDSI levels for drinks are:

- **Level 0 Thin:** flows like water.
- **Level 1 Slightly Thick:** thicker than water but can still flow through a straw.

The International Dysphagia Diet Standardisation Initiative Framework



- **Level 2 Mildly Thick:** sippable liquids that pour quickly from a spoon but slower than the previous levels.
- **Level 3 Moderately Thick:** can be drunk from a cup or taken with a spoon; smooth texture.
- **Level 4 Extremely Thick:** usually eaten with a spoon/cannot be drunk from a cup or consumed with a straw; does not require chewing and is not sticky or lumpy.

Previously, many dysphagia products arrived pre-thickened or used standard recipes for thickening; IDDSI, however, requires that foods and beverages be tested at the time of service to ensure they meet safety standards every time.

With the IDDSI framework, liquids can be tested using a 10 second syringe test. Extremely thick drinks can be tested using the Fork Drip or Spoon Tilt tests. For further explanation on how to perform the tests, visit the IDDSI website (iddsi.org) which offers videos showcasing testing methods and details on required fork and syringe specifications.

Testing foods for dysphagia is slightly more complex as foods need to be tested for stickiness, cohesiveness, texture, and particle size.

The IDDSI levels for food are:

- **Level 3 Liquidized:** can be eaten with a spoon/drunk from a cup but spills off a fork; smooth texture.

- **Level 4 Pureed:** usually eaten with a spoon and holds shape on spoon; no chewing required and not sticky; liquid must not separate from sauces.
- **Level 5 Minced & Moist:** soft, moist and minced; biting not required; minimal chewing.
- **Level 6 Soft & Bite-Sized:** soft, tender and moist but with no liquid leaking; ability to chew bite-sized pieces is required.
- **Level 7 Regular/Easy to Chew:** everyday foods with soft texture; size not restricted but food should not be hard, chewy, or stringy.

IDDSI provides instructions on several food testing methods to determine cohesiveness, stickiness, particle size, and hardness. These include the fork drip, spoon tilt, and fork or spoon pressure tests. Refer to the IDDSI website for full details on how to perform these tests.

Implementation of the IDDSI framework may seem daunting, but starting with small steps can make the transition manageable. One consideration may be to form an interdisciplinary team to implement these new guidelines by determining specific steps and timelines. Another option is to reach out to facilities that have already implemented IDDSI as well as food manufacturers that can serve as useful resources in your transition process.

BALANCING FLAVOR AND FUNCTION

When both eating and drinking are difficult, it can reduce the pleasure many people find in meal time. It is important to prepare nutritious meals that spark interest and prevent dehydration, weight loss, and other serious complications that can result from dysphagia. Today, more

healthcare and foodservice organizations are dedicating teams to develop healthy dysphagia meals that also taste great.

Chef Gilles Stassart of General Mills Foodservice regularly works with healthcare customers to share tips and strategies for creating flavorful, visually appealing dishes that maintain the correct texture and consistency for those with dysphagia. Working within IDDSI guidelines, flavor and function can coexist in safe and consistent meal plans.

“It can be as simple as omitting one contraindicated ingredient and replacing it with something smooth, or opting for modifications such as pureed soups, fruits, and desserts,” Stassart suggested. “Another key to great-tasting food is to season each ingredient of the dish and add a sauce if possible.”

He also recommends using ground meat or minced fruit and vegetables instead of diced or chopped options rather than taking them out of the recipe all together. “Keeping the flavor profile of dishes is possible by simply modifying the texture.”

In particular, smoothies, smooth soups, and hot cereals can all offer flavor and nutrition without seeming overly modified. Stassart and his team created a new book of recipes that adhere to IDDSI guidelines and provide a variety of flavors for dysphagia diets. Recipes include gluten-free chocolate mousse, butternut squash soup, corn muffin breakfast squares, peanut butter chip pancakes and many more, all with clear level labels for easy preparation.

“Consistent preparation with a variety of flavors can lead to a win-win for foodservice operations and the people they serve,” said Stassart.

The recipe book and other resources to help operations better serve patients and residents with dysphagia can be found at <https://www.generalmillscf.com/dysphagia>.

SMOOTHIE SUCCESS

Edinboro Manor, a long-term care and rehabilitation facility in Edinboro, Pa., is just beginning to implement the new IDDSI guidelines starting with liquids. However, one of its successful and ongoing strategies for serving residents with dysphagia is its robust menu of high-calorie and high-protein yogurt smoothies.

Maureen Petrus, Nutrition Services Supervisor at Edinboro Manor, credits smoothies for being an easy prep menu item that is also a crowd pleaser; however she stresses the importance of switching up flavors so residents don't grow tired of them—particularly when some individuals may get a smoothie with each meal, three times a day.

“We offer several varieties that they think are delicious and also help to ensure they are getting extra calories and protein they need, so it's a win/win for both residents and staff,” said Petrus, adding that her team incorporates a variety of fresh fruits and vegetables to ensure residents are not always getting the same flavor.

One of their residents' favorite varieties is the Orange Creamsicle Smoothie. To make, mix the following ingredients in a blender:

- 1 bag of Yoplait ParfaitPro Low Fat Vanilla Yogurt
- ½ gallon whole milk
- 2-3 cups mandarin oranges
- 2 tablespoons vanilla

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Each 8-ounce serving includes 308 calories and 11.5 grams of protein.

MariBeth Paglia, a senior account executive with General Mills Foodservice, credits Petrus as well as Jill Connelly, Regional Dietitian with HCF Management which manages Edinboro Manor, for their ongoing dedication to creating menu items that will not only nourish their residents, but ones that they will be excited about eating.

"This team truly goes above and beyond, to use food first before resorting to supplements. They also make the most of fruit and ingredients they have on hand to continually look for ways to help staff serve their residents better," said Paglia, who is currently working with Connelly to roll out new smoothie recipes that will serve as an alternative to commercially-prepared nutrition drinks and that can be made with little or no equipment. "Clearly, Jill and Maureen are very forward-thinking in their approach to menu development and we look forward to seeing what they do next."

General Mills, an IDDSI Gold Sponsor, is committed to supporting facilities as they transition to full IDDSI implementation. To make it easier to roll out and update recipes for dysphagia patients, the company offers a collection of recipes for all levels. The complete collection can be found at <https://www.generalmillscf.com/dysphagia>, but here are a few examples:

SUMMING IT UP

Ultimately, foodservice management teams, registered dietitians, and chefs can connect to create meaningful dining experiences for those with dysphagia. Working together allows foodservice operations to serve foods that provide good flavor, appropriate nutrition, and a safe and positive eating experience that follows the IDDSI guidelines.

For continuing updates, visit IDDSI.org and sign up for ongoing e-bites. ■

ARTICLE REFERENCES

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2. Streicher, Melanie, et al. "Dysphagia in nursing homes—results from the NutritionDay project." *Journal of the American Medical Directors Association* 19.2 (2018): 141-147.
3. Spronk, Peter E., et al. "Prevalence and characterization of dysphagia in hospitalized patients." *Neurogastroenterology & Motility* (2019): e13763.
4. Cichero, Julie AY, et al. "Development of international terminology and definitions for texture-modified foods and thickened fluids used in dysphagia management: the IDDSI framework." *Dysphagia* 32.2 (2017): 293-314.

RECIPES FOR

Smoothies and soups are a great option for Dysphagia **LEVEL 3** since they can be liquidized, but are still filling and satisfying. Look for recipes for Cherry Cocoa Smoothies, Gluten-Free Butternut Squash Soup, Cocoa Banana Smoothies, and more.

LEVEL 3

Liquidized/Moderately Thick

CHERRY COCOA SMOOTHIES

Yield: 64, 2 oz. portions

INGREDIENTS

- 10 cups (4 lbs.) sweet cherries, canned, drained
- 1/4 cup (.70 oz.) cocoa powder
- 7-1/3 cups (4 lbs.) lowfat vanilla yogurt

INSTRUCTIONS

1. Cover and chill drained fruit for several hours or overnight.
2. Place fruit in a large capacity blender (or prepare in batches) and blend on high speed 1 minute; stop blender and stir with a spatula.
3. Continue to blend until smooth; strain fruit to discard any fruit chunks.
4. Whisk fruit puree, cocoa, and yogurt together in a large mixing bowl until smooth (may need to adjust to appropriate consistency).
5. Portion into serving cups and cover.

SUCCESS

For **LEVEL 4**, mousses and soups can be great sweet and savory options. Look for recipes for Strawberry Mousse, Gluten-Free Citrus Mousse, Gluten-Free Chocolate Mousse, and Gluten-Free Roasted Red Pepper Soup.

LEVEL 4

Pureed/Extremely Thick

GLUTEN-FREE CHOCOLATE MOUSSE

Yield: 128, 1 oz. portions

INGREDIENTS

- 7-1/3 cups (4 lbs.) lowfat vanilla yogurt
- 18 cups (4 lbs.) non-dairy whipped topping
- 2 cups (12 oz.) semi-sweet chocolate chips

INSTRUCTIONS

1. Add yogurt and whipped topping to large stainless mixing bowl; mix with wire whisk until light, airy, and well blended.
2. Place chocolate chips in glass bowl; microwave on high about 20 seconds, stirring twice until melted.
3. Add 1 cup of mousse to melted chocolate; fold in with a rubber spatula to temper.
4. Continue adding 1 cup of mousse at a time until mixture is well blended and tempered.

LEVEL 5 is a transitional level. Peanut Butter Chip Pancakes, Strawberry Lemon Mousse Layered Cake, Gluten-Free Mini Turkey Meatloaves With Cranberry Catsup, and many more options are both appetizing and on the mark.

LEVEL 5

Minced & Moist

PEANUT BUTTER CHIP PANCAKES

Yield: 84, 2 oz. pancakes

INGREDIENTS

- 11 cups (5 lbs, 8 oz.) water, cool approx. 72°F
- 5 lbs. buttermilk pancake mix
- 6 cups (2 lbs. 6 oz.) peanut butter chips

Finishing

- 4 cups (2 lbs 12 oz.) chocolate syrup

INSTRUCTIONS

1. Mix water and pancake mix in bowl using whisk until batter is blended and smooth.
2. Deposit 2 oz. batter onto lightly greased 375°F griddle.
3. Sprinkle 0.5 oz. peanut butter chips in batter on each pancake.
4. Grill 1-1/2 minutes on each side or until pancake turns brown. Do not overcook.
5. Place pancake on serving plate and drizzle 1 oz. chocolate syrup over each.

Also transitional, **LEVEL 6** focuses on soft and bite-sized foods and can include Ham and Onion Quiche, Raspberry Oatmeal Bars, Easy Blueberry Pear Cobbler, Milk Chocolate Cake, and more.

LEVEL 6

Soft & Bite-Sized

RASPBERRY OATMEAL BARS

Yield: 108, 2x2-inch bars

INGREDIENTS

- 5 lbs. yellow cake mix
- 10 cups (2 lbs.) quick oats, dry
- 2 tsp. cinnamon, ground
- 3-1/4 cups (1 lb. 10 oz.) butter, unsalted, softened
- 4 cups (3 lbs.) raspberry preserves
- 1/4-cup (2 oz.) water, cool approx. 72°F

INSTRUCTIONS

1. Place cake mix, oats, and cinnamon in mixer bowl; blend on low speed, using paddle attachment for 2 minutes.
2. Add butter and mix on low speed until well combined and crumbly. approx. 2 minutes.
3. Press half of the crumb mixture (4 lbs 5 oz. or about 12 cups) evenly and firmly in bottom of greased full sheet pan
4. Combine preserves and water; spread evenly over crumb base.
5. Sprinkle with remaining crumb mixture and press firmly to make top-even.
6. Bake at 375°F (standard oven) for 15-20 min. until top is lightly browned. Do not overbake.