

TSHA Practice Brief: The International Dysphagia Diet Standardization Initiative (IDDSI)

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The International Dysphagia Diet Standardization Initiative (IDDSI)

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Have you ever walked into the room of a patient on nectar-thick liquids and found a cup full of nasty paste? Have you noticed that one person's nectar-thick is another's honey-thick? The International Dysphagia Diet Standardization Initiative (IDDSI) is seeking to make food and liquid textures more consistent across the globe. IDDSI is a group of volunteer speech-language pathologists (SLPs), dietitians, occupational therapists (OTs), nurses, engineers, and doctors from all over the world, and their objectives are:

- To develop a standardized way of naming and describing texture modified foods and thickened liquids for people with dysphagia across the lifespan.
- Our process is intended to be person-focused rather than profession-focused. We seek to develop a global terminology that will work for all cultures and that will be accompanied by practical and valid measurement techniques that will facilitate use by persons with dysphagia, caregivers, clinicians, food service professionals, and industry partners.
- To seek a common language that can be used for technical, cultural, professional, and non-professional uses. We believe this should be a living document, changing as needs change.

As SLPs, we are aware that dysphagia is prevalent in the general population and may affect approximately one in 25 adults annually (Bhattacharyya, 2014). Diet consistency modification is commonly used to manage dysphagia. Historically, there has been wide variation and miscommunication regarding the classification of various food consistencies that we commonly recommend to patients. If IDDSI's objectives are achieved, the days of this confusion may soon be over.

IDDSI Framework

The IDDSI framework consists of levels zero to seven, classified from thinnest to thickest. There is some overlap between liquids and solids, as levels 0-4 are liquids from thin to extremely thick, and solids are 3-7 from liquidized to regular.

IDDSI Implementation

To implement the IDDSI consistency tests, all you need is a 10ml slip-tip syringe*, fork, and spoon. Liquids are tested through a gravity flow test. Just remove the plunger from the 10ml slip-tip syringe, cover the nozzle with your finger, and fill with 10ml liquid. Then release the nozzle, and start the timer. After 10 seconds, the amount of liquid remaining will indicate the classification of your liquid: 0-1ml for thin (Level 0), 1-4ml for slightly thick (Level 1), 4-8ml for mildly thick (Level 2), 8-10ml for moderately thick (Level 3), and 10ml for extremely thick (Level 4). Level 4 should be tested by the IDDSI fork-drip/spoon-tilt tests.

Levels 3 and 4 can be tested through the fork-drip test. Level 3 (liquidized or moderately thick liquids) should drip slowly or in dollops/strands through the tines/prongs of a fork.

With Level 4 (puree food or extremely thick liquids), a small amount may flow through and form a tail below the fork, but it does not dollop, flow, or drip continuously through the fork prongs.

For Levels 4 and 5, materials should not be sticky. This can be tested with a spoon-tilt test. The sample should be cohesive enough to hold its shape on the spoon but must slide or pour off the spoon if the spoon is tilted/turned sideways or shaken lightly.

For Level 5 (minced and moist) foods, particles of food should fit between the tines/prongs of a standard metal fork for adults or the size of the child's fifth fingernail for children.

Level 6 (soft and bite-sized) recommends maximum food size of 1.5 cm x 1.5 cm (the entire width of a standard fork). Softness/hardness of food can be tested with the fork-pressure test. Press the fork into the food sample by placing the thumb onto the bowl of the fork until blanching is observed (17 kilopascals), the pressure of which is consistent with tongue force used during swallowing.

The American Speech-Language-Hearing Association (ASHA) and the Academy of Nutrition and Dietetics have voted to formally support the implementation of the IDDSI frameworks and definitions; therefore, SLPs can expect to see it used widely. Patients and families can be trained on testing the recommended diet consistency, which can be accomplished at home. Commercial products have already begun to standardize according to the IDDSI framework; this will allow systemizing texture expectations based on the level.

How can we start implementing this in our own facilities? Many facilities have begun implementing the IDDSI framework by educating dietary staff and testing food items regularly served to assign appropriate IDDSI consistency labels. This progress might be initially tedious and time-consuming; however, the benefits are enormous. The framework standardization will facilitate global camaraderie and intra-professional collaboration to improve patient care, safety, and quality of life.

For more information, presentations, videos, and updates of international implementation of IDDSI, check out www.iddsi.org.

**The dimensions of the syringe are important. See the IDDSI website for more information.*

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References

Bhattacharyya N, The prevalence of dysphagia among adults in the United States. *Otolaryngology Head Neck Surgery* 2014 Nove; 151 (5): 765-9

Berzlanovich AM, Muhm M, Sim E et al. Foreign body asphyxiation—an autopsy study. *Am J Med* 1999;107: 351–5.

Cichero JAY, Steele CM, Duivesteyn J, Clave P, Chen J, Kayashita J, Dantas R, Lecko C, Speyer R, Lam P. The need for international terminology and definitions for texture modified foods and thickened liquids used in dysphagia management: foundations of a global initiative. *Curr Phys Med Rehabil Rep*. 2013;1:280–91.

Garcia JM, Chambers ET, Matta Z, Clark M. Viscosity measurements of nectar- and honey-thick liquids: product, liquid, and time comparisons. *Dysphagia*. 2005;20:325–35.

Peyron MA, Mishellany A, Woda A. Particle size distribution of food boluses after mastication of six natural foods. *J Dent Res*, 2004; 83:578–582.

Steele, C, Alsanei, Ayanikalath et al. The influence of food texture and liquid consistency modification on swallowing physiology and function: A systematic review. *Dysphagia*. 2015; 30: 2-26.