

Dysphagia Boot Camp: An IDDSI Drill

WVAND April 11, 2019
Debra Zwiefelhofer, RDN, LD
dzwiefel01@att.net

Objective

Participants Will:

- Understand and state the purpose of moving from the NDD to the IDDSI guidelines.
- Identify similarities and differences between the NDD and IDDSI standards.
- Develop steps for adapting the IDDSI guidelines into practice.

Counting the Reasons 'Why'

- The NDD was never intended to be 'final' diet guidance.
 - Safety is at the center of the dysphagia diet; improving diet consistencies is critical
- A global health issue cannot be properly address inside individual countries.
 - Avoids re-assessing between practitioners and facilities
- More clinical research for dysphagia is needed! When diet is the foundation of treatment it needs to be repeatable across the world.
 - Commercial product consistency

A Few Reminders...

Dysphagia is ALWAYS secondary to another problem.

Etiology

- Neurogenic (stroke, Parkinson's, ALS, Alzheimer's..)
- Myopathic (muscular defects)
- Structural anomalies (Zenker's diverticulum)
- Congenital (brain lesions)
- Infectious (post-polio syndrome)
- Autoimmune (Sjogren's)
- Traumatic (TBI, spinal cord, chemical burns)
- Iatrogenic (surgical nick to nerves)
- Psychogenic
- Aging

5

Dysphagia – Crosses Lifespan

- Infant /child/adolescent :
 - Congenital, neurodevelopmental delay
- Adults:
 - Gastro-esophageal, immunologic
- Elderly:
 - Neurologic

Food Texture & Liquid Consistency Modification

Objective: Safety

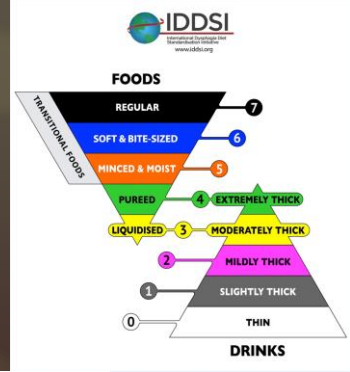
Minimizing the risk for aspiration and choking



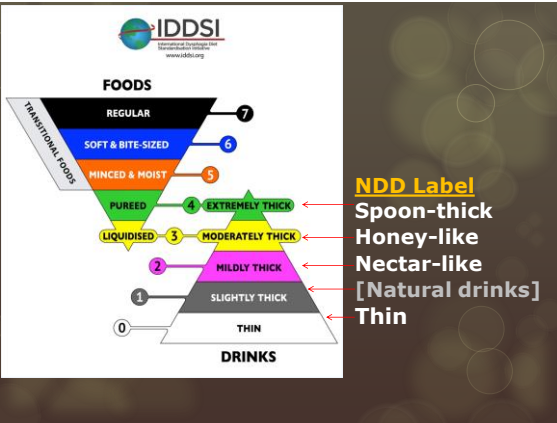
Shifting the way we think about consistencies

All ages, care settings, cultures

Speaking the same diet order



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Why Thicken Liquids?

Dysphagia = Swallowing Difficulty

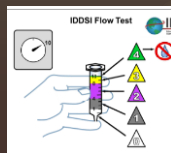
- People with dysphagia have poor control of foods/liquids moving through their oral cavity
- Thickening the liquid:
 - Slows down the transit time
 - Allows the bolus to be detected and therefore better manipulated
- Note: Thicker is not always better
- Note: not ALL people with dysphagia will require thickened liquids

A Testing Solution



- ONDD – too complicated
- Viscometers
- Centipoise (cps)

- IDDSI - easy
- Syringe
- Flow Test



IDDSI Flow Test

1. Get a stopwatch and count 10 and stop the stopwatch. Remove the plunger from the syringe & blow it.
2. Cover the nozzle of the syringe with your finger, making a seal.
3. Pull the syringe up to the 10 ml line with fluid it's recommended to use number syringes to do this.
4. Remove your finger from the nozzle end of the syringe then as starting the stopwatch.
5. At 10 seconds, replace your finger over the nozzle.


IDDSI Level classifications based on liquid remaining after 10 seconds:

- Level 0: All liquid has passed through the syringe.
- Level 1: There is between 7 and 8 ml remaining.
- Level 2: There is between 4 and 6 ml remaining.
- Level 3: There is more than 3 ml remaining but less than 4 ml left in the syringe.
- Level 4: If the liquid has all the syringe is left or almost empty and the liquid is very thick and/or sticky.

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○ Available on IDDSI.org


1 SLIGHTLY THICK



Description/ Characteristics	<ul style="list-style-type: none"> Thicker than water Requires a little more effort to drink than thin liquids Flows through a straw, syringe, teat/nipple Similar to the thickness of commercially available 'Anti-regurgitation' (AR) infant formula
Physiological rationale for this level of thickness	<ul style="list-style-type: none"> Predominantly used in the paediatric population as a thickened drink that reduces speed of flow yet is still able to flow through an infant teat/nipple. Consideration to flow through a teat/nipple should be determined on a case-by-case basis.
Testing method	
See also IDDSI Testing Methods document or http://iddsi.org/framework/drink-testing-methods/	
IDDSI Flow Test*	<ul style="list-style-type: none"> Test liquid flows through a 10 mL slip tip syringe leaving 1-4 mL in the syringe after 10 seconds (see IDDSI Flow Test instructions*)

NECTAR-LIKE

2 MILDLY THICK




Description/ Characteristics	<ul style="list-style-type: none"> Flows off a spoon Sippable, pours quickly from a spoon, but slower than thin drinks Effort is required to drink this thickness through standard bore straw (standard bore straw = 0.209 inch or 5.3 mm diameter)
Physiological rationale for this level of thickness	<ul style="list-style-type: none"> If thin drinks flow too fast to be controlled safely, these Mildly Thick liquids will flow at a slightly slower rate May be suitable if tongue control is slightly reduced.
TESTING METHOD	
See also IDDSI Testing Methods document or http://iddsi.org/framework/drink-testing-methods/	
IDDSI Flow Test*	<ul style="list-style-type: none"> Test liquid flows through a 10 mL slip tip syringe leaving 4 to 8 mL in the syringe after 10 seconds (see IDDSI Flow Test instructions*)

HONEY-LIKE

3 LIQUIDISED


3 MODERATELY THICK



Description/characteristics	<ul style="list-style-type: none"> Can be drunk from a cup Some effort is required to suck through a standard bore or wide bore straw (wide bore straw = 0.275 inch or 6.9 mm) Cannot be piped, layered or moulded on a plate Cannot be eaten with a fork because it drips slowly in dollops through the prongs Can be eaten with a spoon No oral processing or chewing required – can be swallowed directly Smooth texture with no 'bits' (lumps, fibers, bits of shell or skin, husk, particles of grittle or bone)
Texture restrictions shown in summary table	
Physiological rationale for this level of thickness	<ul style="list-style-type: none"> If tongue control is insufficient to manage Mildly Thick drinks (Level 2), this Liquidised/Moderately thick level may be suitable Allows more time for oral control Needs some tongue propulsion effort Pain on swallowing

4 PUREED

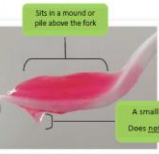
4 EXTREMELY THICK




SPoon THICK OR PUDDING THICK

Description/characteristics	<ul style="list-style-type: none"> Usually eaten with a spoon (a fork is possible) Cannot be drunk from a cup Cannot be sucked through a straw Does not require chewing Can be piped, layered or moulded Shows some very slow movement under gravity but cannot be poured Falls off spoon in a single spoonful when tilted and continues to hold shape on a plate No lumps Not sticky Liquid must not separate from solid
Texture restrictions shown in summary table	
Physiological rationale for this level of thickness	<ul style="list-style-type: none"> If tongue control is significantly reduced, this category may be easiest to manage Requires less propulsion effort than Minced & Minced (Level 5), Soft & Bite-Sized (Level 6) and Regular (Level 7) but more than Liquidised/Moderately thick (Level 3) No biting or chewing is required Increased residue is a risk if too sticky Any food that requires chewing, controlled manipulation or bolus formation are <u>not</u> suitable Pain on chewing or swallowing Missing teeth, poorly fitting dentures

FoodLiquids





Sits in a mound or pile above the fork




4 PUREED
4 EXTREMELY THICK

A small amount may flow through and form a tail below the fork. Does not dollop, flow or drip continuously through the fork prongs

Spoon Tilt Test: Holds shape on spoon; not firm and sticky; little food left on spoon

- Thickening liquids is still going to be challenging
- Over/under thickening over time
- "Operator error"...still need beverage recipes for your facility; still need to measure; still need to train



- In pre-thickened liquids we trust

Now What?

- Set up your cross-functional team to set your facility plan for transitioning to IDDSI
 - SLP, RDN, FSD/CDM + ?? Others
- Starter task list:
 - Review your beverages and mixing instructions (use ISSDI Flow Test & audit sheets)
 - Adjust mixing directions as needed
 - IDDSI Flow Test your "natural liquids" (make a reference chart for staff)
 - Decide on policy for frequency of viscosity testing and by whom
 - Train staff

Tools/Resources at IDDSI.org



- Audit sheets
- 'Poster' mapping crosswalk from NDD to IDDSI
- Implementation timeline / planning template

Food	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10	Level 11	Level 12	Level 13	Level 14	Level 15	
Meat (spiced with turmeric/water) Hard-boiled chicken																
Identify texture (chicken) areas and symptoms																
Food with turmeric and chicken Meat (spiced with turmeric/water)																
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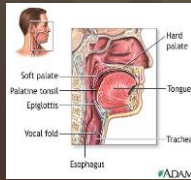
- Translations for other languages
- EVERY liquid and food level has a ready-to-copy patient education sheet.

Dentition vs. Dysphagia

Chewing Vs. Swallowing

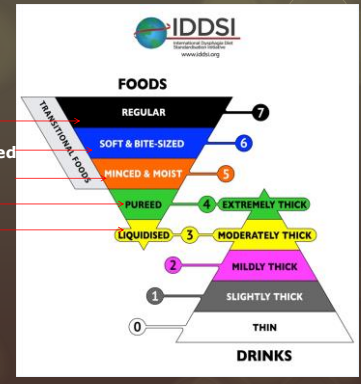


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Imaged accessed online June 2010 at <http://www.healthline.com/health/dysphagia/dysphagia>

NDD Labels
Regular
Mechanically Advanced
Mechanically Altered
Pureed
[Blenderized]



5 MINCED & MOIST

International Dysphagia Diet Standardisation Initiative
www.iddsi.org

Description/characteristics	<ul style="list-style-type: none"> • Can be eaten with a fork or spoon • Could be eaten with chopsticks in some cases, if the individual has very good hand control • Can be scooped and shaped (e.g. into a ball shape) on a plate • Soft and moist with no separate thin liquid • Small lumps visible within the food <ul style="list-style-type: none"> ➢ Paediatric, 2 mm lump size ➢ Adult, 4mm lump size • Lumps are easy to squash with tongue
Physiological rationale for this level of thickness	<ul style="list-style-type: none"> • Biting is not required • Minimal chewing is required • Tongue force alone can be used to break soft small particles in this texture • Tongue force is required to move the bolus • Pain or fatigue on chewing • Missing teeth, poorly fitting dentures

5 MINCED & MOIST

Use slot between fork prongs (4mm) to determine whether minced pieces are the correct or incorrect size

Correct

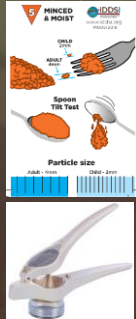
Incorrect

Note - lump size requirements for all foods in Level 5 Minced & Moist:

- Paediatric, 2mm lump size
- Adult, 4mm lump size

Minced and Moist - Comparison

	NDD Mechanically Altered	IDDSI Minced and Moist
Meat	Ground, moistened, no larger ¼ inch pieces	Finely minced or chopped (2mm / 4 mm)
Fruit	Soft, drained, canned or cooked	Mashed, or pureed
Vegetables	Soft, well cooked, less ½ inch pieces, easily mashed with fork	Finley minced or chopped (4 mm) or mashed
Rice / Pasta	Well cooked noodles with sauce, pureed rice	Pureed or use instant mixes
Bread	Pureed, pre-gelled, soaked or slurried, moist throughout	Pre-gelled, soaked or slurried, moist throughout
Cereals	Oatmeal, moistened dry cereal, liquid absorbed, thickened if needed	Very thick, smooth with soft lumps Texture fully softened, milk/fluid must not separate



6 SOFT & BITE-SIZED



Description/characteristics	Physiological rationale for this level of thickness
<p>Texture restrictions shown in summary table</p> <ul style="list-style-type: none"> Can be eaten with a fork, spoon or chopsticks Can be mashed/broken down with pressure from fork, spoon or chopsticks A knife is not required to cut this food, but may be used to help loading a fork or spoon Chewing is required before swallowing Soft, tender and moist throughout but with no separate thin liquid 'Bite-sized' pieces as appropriate for size and oral processing skills <ul style="list-style-type: none"> Paediatric, 8mm pieces Adults, 15 mm = 1.5 cm pieces 	<ul style="list-style-type: none"> Biting is not required Chewing is required Tongue force and control is required to move the food for chewing and to keep it within the mouth during chewing Tongue force is required to move the bolus for swallowing Pain or fatigue on chewing Missing teeth, poorly fitting dentures

6 SOFT & BITE-SIZED



Thumb nail blanched to white



Sample squashes and does not return to its original shape when pressure is released

Soft and Bite Sized Comparison

	NDD Dysphagia Advanced	IDDSI Soft and Bite Sized
Meat	Thin sliced, tender or ground	Cooked tender, diced (~½ inch adult)
Fruit	Canned or cooked, soft, peeled fresh fruit, berries with small seeds (strawberries)	Mashed, or pureed, no fibrous pieces. No fruits where juice separates from solid in mouth
Vegetables	Cooked, tender	Steamed or boiled, tender, diced (1/2 inch)
Rice / Pasta	Well cooked noodles and rice	Pureed or instant mix
Bread	Well moistened throughout	Pre-gelled, soaked, moist throughout. Slurried, bite sized and soft.
Cereals	Well moistened	Smooth with soft tender lumps, not bigger than 15 mm



TRANSITIONAL FOODS



Description/characteristics	Physiological rationale for this level of thickness
<ul style="list-style-type: none"> Food that starts as one texture (e.g. firm solid) and changes into another texture specifically when moisture (e.g. water or saliva) is applied, or when a change in temperature occurs (e.g. heating) 	<ul style="list-style-type: none"> Biting not required Minimal chewing required Tongue can be used to break these foods once altered by temperature or with addition of moisture/saliva May be used for developmental teaching or rehabilitation of chewing skills (e.g. development of chewing in the paediatric population and developmental disability population; rehabilitation of chewing function post stroke)

TRANSITIONAL FOODS



- Apply 1 ml of water to sample
- Wait 1 minute



Thumb nail blanched to white



Sample squashes and fractures, and does not return to its original shape when pressure is released

IDDSI Transitional Foods may include and are not limited to:

- Ice chips
- Ice cream/Sherbet if assessed as suitable by a Dysphagia specialist
- Japanese Dysphagia Training Jelly sliced 1 mm x 12 mm
- Wafers (also includes Religious Communion wafers)
- Waffle cones used to hold ice cream
- Some biscuits/cooked crackers
- Potato crisps - only the mashed type (e.g. Pringles)
- Shortbread
- Proven crisco


Specific examples used in paediatric or adult disability dysphagia management


Commercially available 'foods' that are transitional foods textures include but are not limited to:





















- Veggie Stix™
- Cheeto Puffs™
- Rice Puffs™
- Baby Mum Mums™
- Gerber Graduate Puffs™

¹The mention of certain manufacturers' products does not imply that they are endorsed or recommended in preference to others of a similar nature that are not mentioned.

FOOD TEXTURE REQUIREMENTS

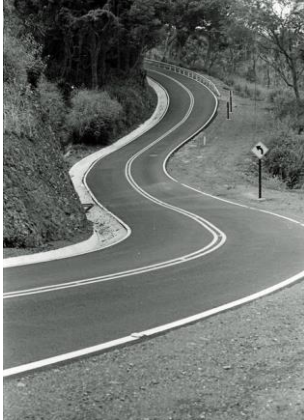
A green shaded check mark  in the summary table below indicates a characteristic that is required and acceptable for foods in each level.

A red shaded  in the summary table below indicates a food characteristic that is not acceptable for foods in each level.

Description/Characteristics	3 Liquidised/ Moderately thick	4 Pureed/ Extremely thick	5 Minced & moist	6 Soft & bite- sized
No skin, no crust even after cooking, heating or standing				
No separation of thin (watery) liquid				
Will hold its shape on a plate, fork or spoon				
Soft grainy texture quality				
Visible lumps				

A Reminder:

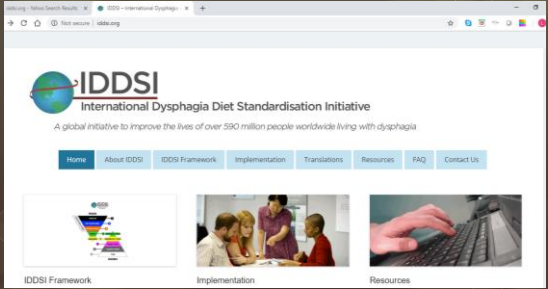
- The dysphagia diet level is not often "black and white".
- Diet orders can move up / down levels.
- Diet orders may change meal to meal.



How do we tackle foods?

- Set up your cross-functional team
 - OSLP + RDN + FSD/CDM + Chef/Cook. Others??
- Starter task list:
 - Review your menus for foods that are no longer appropriate for level 5 & 6
 - Can you adjust the recipe?
 - How are diet orders going to be written?
 - Are you going have mechanical textures as well as IDDSI textures?
 - Train staff

IDDSI.org



The screenshot shows the IDDSI.org website with the following content:

- Logo: IDDSI International Dysphagia Diet Standardisation Initiative
- Mission: A global initiative to improve the lives of over 590 million people worldwide living with dysphagia
- Navigation: Home, About IDDSI, IDDSI Framework, Implementation, Translations, Resources, FAQ, Contact Us
- Featured sections: IDDSI Framework, Implementation, Resources

Summary

Official Launch Date for Implementation May 1, 2019

- IDDSI is here
- The time is now to plan your transition
 - Adapt IDDSI into your referenced diet manual
- Our job is patient / resident safety and using best practice

