



Note: For current and most up to date information and resources, please visit www.IDDSI.org



Guided Journey to the IDDSI Gateway



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The Gateway to Foodservice Excellence

Disclosures:

- Mary Rybicki
 - Editor in Chief of NCM Diet Manual, Academy of Nutrition and Dietetics
 - Independent Consultant with SimplyThick for QAPI Project on Hydration
- Peter Lam
 - International Co-Chair, IDDSI
 - Nutrition & Food Service Consultant, Professional Practice Consultant to Health Authorities, Associations and Industry



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The International Dysphagia Diet Standardisation Initiative is supported by funding from a variety of industry sources.



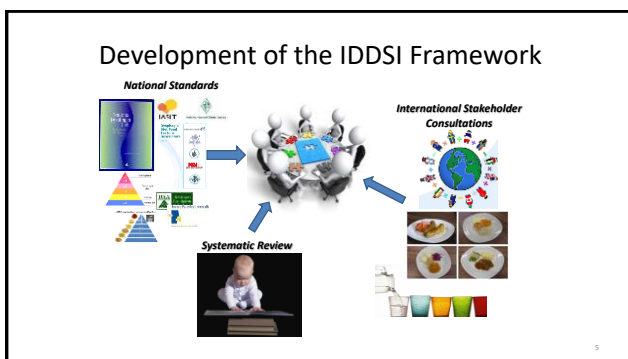
Safety through...


Common terminology for

All ages

All care settings

All cultures





Systematic Review

- There IS evidence that **thickening helps those who aspire thin liquids**
- There is ALSO evidence that there is such a thing as **“too thick”**, where residue begins to accumulate
- There is no specific evidence to point to **particular rheological values that define the boundaries of effective thickening** (either just thick enough or too thick)

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Systematic Review

- There IS evidence solid food and thicker consistencies require **greater effort** in oral processing and swallowing
- There is **very little literature** specifically about texture modified food used for the management of dysphagia



IDDSI Testing is objective

IDDSI
International Dysphagia Diet
Standardisation Initiative
www.iddsi.org

A flow test has been used to **define** levels

The diagram illustrates the IDDSI Flow Test. It shows a hand holding a syringe and dispensing a liquid into a graduated cylinder. A clock icon indicates a 10-second time limit. The diagram also shows a syringe with a plunger and a graduated cylinder with a scale. The text 'Flow Test' is written above the diagram.

Mapping to IDDSI - Drinks

National Dysphagia Diet

IDDSI
International Dysphagia Diet
Standardisation Initiative

National Dysphagia Diet	IDDSI Level
Thin	0 Thin
(Naturally thick liquids, e.g. infant formula, supplements)	1 Slightly Thick
Nectar-thick (15-130 cP / mPa.s @25°C)	2 Mildly Thick
Honey-thick (175-1750 cP / mPa.s @25°C)	3 Moderately Thick
Spoon-thick (1750-10000 cP / mPa.s @25°C)	4 Extremely Thick

Mapping to IDDSI - Foods

National Dysphagia Diet

IDDSI
International Dysphagia Diet
Standardisation Initiative

National Dysphagia Diet	IDDSI Level
Regular	7 Regular 7 Easy to Chew
Level 3-Dysphagia Advanced	6 Soft & Bite-Sized
Level 2-Dysphagia Mechanically Altered / Ground	5 Minced & Moist
Level 1-Dysphagia Pureed	4 Pureed
Pureed Soups, Milkshakes, Smoothies	3 Liquidised

Appendix A: ...Developing Standards for Thickened liquids and dietary textures...

....“The material in this appendix reflects **emerging science**... The information presented here is based on the available **science**, that is **not extensive**.... **Topic experts** have **extrapolated on the available data** and created what is thought to be a commonsense approach. The suggested ranges **do not reflect those currently used** for any organization or company, but are meant to be a **catalyst** for more **research** in this area”.... (NDD, 2002)

And now...

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Distinguishing between NDD & IDDSI

NDD Level 1 – Pureed

- Pureed, homogenous, and cohesive foods - "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.

4 PUREED

- 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 molded
- 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

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Distinguishing between NDD & IDDSI

NDD Level 2 – Mechanically Altered

- Foods that are moist, soft-textured, and easily formed into a bolus.
- Meats are ground or are minced no larger than one-quarter-inch cube (6 mm) pieces - moist, with some cohesion (served with gravy/sauce)
- Vegetables should be soft, well-cooked < 1/2 inch (13 mm). Should be easily mashed with a fork
- No rice

5 MINCED & MOIST

- 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
 - Paediatric, 2 mm lump size
 - Adult, 4mm lump size
- Lumps are easy to squash with tongue

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Distinguishing between NDD & IDDSI

NDD Level 3 – Dysphagia Advanced

- 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-sized" pieces at the oral phase of the swallow.
- Any soft breads, biscuits, muffins, pancakes, French Toast, waffles, (if not dry). Need to add adequate syrup, jelly, margarine, butter, etc., to moisten well.
- Soft, peeled fresh fruits such as peaches, nectarines, kiwi, mangos, cantaloupe, honeydew, watermelon (without seeds). Soft berries with small seeds such as strawberries.

6 SOFT & BITE-SIZED

- 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
 - Paediatric, 8mm pieces
 - Adults, 15 mm = 1.5 cm pieces

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4 PUREED EXTREMELY TH	5 MINCED & MO	6 SOFT & BITE-SIZED
Description/characteristics 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 molded 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	Description/characteristics 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 Paediatric, 2 mm lump size Adult, 4mm lump size Lumps are easy to squash with tongue	Description/characteristics 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 Paediatric, 8mm pieces Adults, 15 mm = 1.5 cm pieces
Texture restrictions shown in summary table 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 molded 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 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 Paediatric, 2 mm lump size Adult, 4mm lump size Lumps are easy to squash with tongue	Texture restrictions shown in summary table 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 Paediatric, 8mm pieces Adults, 15 mm = 1.5 cm pieces
Physiological rationale for this level of thickness If tongue contact is sufficient to swallow Requires less Soft & Bite-Sized Liquid consistency No bolus or of Increased risk Any food that Formation are Pain can often Masticating teeth	Physiological rationale for this level of thickness Biting is not required Minimal risk Tongue for this texture Tongue for this texture Pain or fatigue on chewing	Physiological rationale for this level of thickness 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
TESTING METHODS Fork Pressure test Spoon Tilt test	TESTING METHODS Fork Pressure test Spoon Tilt test	TESTING METHODS Fork Pressure test

Intended for Liquid or puree, THIN, SLIGHTLY THICK, MILDLY THICK, LIQUIDISED, MODERATELY THICK, IDDSI

Intended for EXTREMELY THICK, IDDSI

Intended for MINCED & MOIST, IDDSI

Intended for SOFT & BITE-SIZED, IDDSI

Available at <http://iddsi.org/resources/>

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IDDSI EASY TO CHEW

Normal, everyday foods of soft/tender textures that are developmentally and age appropriate. Chewing is necessary. Any method may be used to eat these foods. Sample size is not restricted at Level 7, therefore, foods may be of a range of sizes. Does not include: hard, tough, chewy, fibrous, stringy, crunchy, or crumbly bits, pips, seeds, pith inside skin, husks or bones. May include "dual consistency" or "mixed consistency" foods and liquids.

Fork/Spoon Pressure Test

Pressure from a fork/spoon held on its side can be used to 'cut' or break or flake this texture into smaller pieces. When a sample the size of a thumb nail (1.5x1.5cm) is pressed with the base of a fork/bowl of a spoon to a pressure where the thumb nail blanches to white, the sample squashes, breaks apart, changes shape and does not return to its original shape when the fork is removed.

Thumb nail blanches white

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IDDSI **6 SOFT & BITE-SIZED**

- ✓ Bite-sized pieces of
 - ✦ 1.5 x 1.5cm for adults
(about the size of an adult thumb nail)
 - ✦ 8mm x 8mm for children
- ✓ Chewing is necessary
- ✓ Tongue strength and control needed to move food for chewing and for swallowing
- ✓ Should be able to easily cut this texture with just the side of a fork



Fork Pressure Test



- ✦ Press into a bite-sized piece of food with your thumb in the bowl of a fork hard enough that the thumbnail turns white
- ✦ The food should squash easily and not return to its original shape

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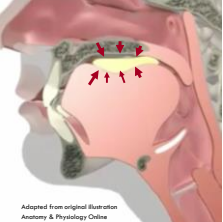
IDDSI

Thumb nail blanched to white

6 SOFT & BITE-SIZED

Average tongue-palate pressure: 15-20 kilopascals



Adapted from original illustration Anatomy & Physiology Online

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Test Soft & Bite-Sized / Easy to Chew Samples

Large Group Discussion re: outcome of testing and how to 'refresh'/'repair' foods that are:




- Incorrect Particle Size
- Too hard

IDDSI

IDDSI Fork Test

5 MINCED & MOIST

- The slots/gaps between the tines/prongs of a standard metal fork typically measure 4 mm.
- This provides a useful measure for particle size of foods at **Level 5 - Minced & Moist**.

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IDDSI **5 MINCED & MOIST**

Level 5 – Minced & Moist

IDDSI Fork Pressure Test Meat

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Test Minced & Moist Samples

Large Group Discussion re: outcome of testing and how to 'refresh'/'repair' foods that are:

- Incorrect Particle Size
- Not cohesive/Particulate
- Too adhesive/sticky

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Spoon Tilt Test

PUREED
EXTREMELY THICK

IDDSI Spoon Tilt Test determines Cohesion (ability to hold together) and Adhesion (stickiness)

For safety the bolus should be cohesive enough to hold its shape but not sticky

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IDDSI Spoon Tilt Test – Level 4 Extremely Thick

Level 4 Extremely Thick

IDDSI Spoon Tilt Test

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Test Pureed Samples

Large Group Discussion re: outcome of testing and how to 'refresh'/'repair' foods that are:

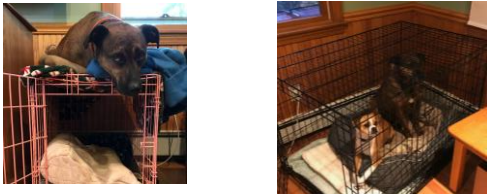
- Too adhesive/sticky

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IDDSI IMPLEMENTATION: REALITY

Who is enthusiastic? Not? Why?

Expand choices, adjust menu and "buddy up" with others!



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IDDSI Implementation Guide: Food Service and Catering

TASKS	12 months to go	11 months to go	10 months to go	9 months to go	8 months to go	7 months to go	6 months to go	5 months to go	4 months to go	3 months to go	2 months to go	1 month to go	Launch!
1. Become familiar with IDDSI													
Become familiar with the IDDSI website www.iddsi.org													
Download the IDDSI app													
Sign up for IDDSI newsletters (e-bites)													
Review key IDDSI resources: Detailed definitions; Testing methods; FAQs; Resources													
2. Form IDDSI implementation teams													
Form a Food Service and Catering IDDSI team													
Join or create your 'workplace wide' multidisciplinary IDDSI team that includes your Food Service/Catering team, Clinical Team/Health Care providers and all others affected by IDDSI implementation													
Meet with leadership/management to receive necessary permissions and keep them informed													

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But How Do I Get Started?

Confer

Consult

Concur

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```
graph TD; A[Continue Through Collaboration and Communication] --> B[Compare the now]; B --> C[To the goal IDDSI]; C --> D[Make changes]; D --> A;
```

Continue
Through
Collaboration
and
Communication

Compare the now

To the goal (IDDSI)

Make changes

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My food doesn't meet IDDSI standards...

- Food Characteristics:
 - Moisture
 - Tenderness
 - Size of pieces
 - Stickiness
 - Cohesiveness
- Resources:
 - Sauces, broths, gravy, holding & processes
 - Ingredients and purchased products
 - Equipment and purchased products
 - Ingredients, process and holding
 - Recipe and "SOP"

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Start Your IDDSI Address Book

Who Are Your IDDSI
friends?

Build Your Network

Connect with Colleagues

Create Solutions Together

- BIDMC: (Boston Hospital)
Lori DeCosta
ldecosta@bidmc.harvard.edu
Stephanie Riolo
sriolo@bidmc.harvard.edu
- Mary Rybicki
maryrybicki@gmail.com
- Lauren Meyer lauren-meyer@uicwa.edu
- For culture change adaptations:
Janice Raymond
janiceoutwest@gmail.com

General Resources

Country specific Resources

IDDSI 101 (Print and Post) +

IMPLEMENTATION -

Adoption Process -

Conversion Charts -

Audit Sheets -

Levels of DDSI Levels -

MAPK Logins (by Country) -

Feedback -

Implementation Guides -

Flow Test Cards -

Food Test Cards -

PRESENTATIONS +






PUBLICATIONS +


E-BITES (newsletters) +

NEWSROOM +


VIDEOS +

IDDSI resources



IDDSI in progress...



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