


Webinar 2: IDDSI: Testing measures for food quality control and safety

International Dysphagia Diet Standardization Initiative (IDDSI) Training Series

WEBINAR 02

IDDSI: Testing measures for food quality control and safety



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What you will learn

After listening to this training session, you should be able to:

1. Demonstrate effective testing and analysis of foods, according to the IDDSI Framework, Descriptors and Testing Methods.
2. Gain skills and resources to move from IDDSI awareness, to preparation, and eventually to adoption.

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PRESENTER

Karen Sheffler

MS, CCC-SLP, BCS-S


- Board Certified Specialist in Swallowing and Swallowing Disorders
- Founder of www.SwallowStudy.com
- IDDSI Champion



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IDDSI Framework

March 2019



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Detailed Descriptions and Testing Methods

5 MINCED & MOIST

Description/Characteristics

- Can be eaten with a fork or spoon
- Good for eating with chopsticks in some cases, if the individual has very good hand control
- Can be minced 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
 - **Particle size:** equal to or less than 2 mm width and no longer than three in length
 - **Adult, equal to or less than 2 mm width and no longer than three in length**
- Lumps are easy to squash with tongue

Physiological rationale for this level of thickness

- Swallow is not required
- Minimal chewing is required
- Tongue force alone can be used to separate the soft small particles in this texture
- Tongue force is required to move the bolus
- Pain or fatigue on chewing
- Missing teeth, poorly fitting dentures

Although descriptions are provided, use IDDSI Testing methods to decide if the food meets IDDSI Level 5.

TESTING METHODS

See also IDDSI Testing Methods document or https://www.iddsi.org/Training/IDDSI_Testing_Methods/

Fork Pressure test

- When prepared with a fork the particles should easily be separated between and come through the tines/springs of a fork
- Can be easily crushed with finger pressure from a fork (pressure should **not** squish the tines/springs)

Fork Grip test

- When a sample is scooped with a fork it sits in a pile or can mound on the fork and does not easily or completely flow or fall through the tines/springs of a fork

Spoon Tilt test

- Cohesive enough to hold its shape on the spoon
- A full spoonful made side/inner or off/flat the spoon if the spoon is tilted or turned sideways or shaken lightly, the sample should slide off easily with one little flick on the spoon, or the sample should **not** be sticky
- A spoonful mounded may spread or slump very slightly on a plate

http://www.iddsi.org/Documents/Complete_IDDSI_Framework_Final_31Jul2019.pdf, Image Copyright December 2017 - Used with permission from IDDSI

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Important Food Properties

for simple POINT OF SERVICE testing:

DO SERVE

Soft
Cohesive
Slippery

DON'T SERVE

Hard
Crumbly
Sticky

- Size and Shape of Food: crucial factors in choking risk.
- Time and Temperature of Food Matter: as food cools it can become thicker and hard/sticky

http://www.iddsi.org/Documents/Testing_Methods_IDDSI_Framework_Final_31_July2019.pdf

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Test Cards

Go To:
→ IDDSI.org → Resources
→ Implementation

5 MINCED & MOIST
CHILD Spoon
ADULT Spoon
Spoon Tilt Test
Particle size
Adult < 4mm
Child < 3mm

6 SOFT & BITE SIZED
Thumb nail blanches white
Fork Pressure Test
Bite size
Adult < 15mm
Child < 10mm

www.iddsi.org
www.iddsi.org

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http://www.iddsi.org/Documents/IDDSI_Food_Test_Cards_USA_v09r_03x51mm_FINAL_with_Need.pdf

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IDDSI Food Testing Methods

1. Spoon Tilt Test
2. IDDSI Fork Drip Test
3. IDDSI Fork Pressure Test
4. IDDSI Fork/Spoon Separation Test
5. IDDSI Particle Size Compliance

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1. Spoon Tilt Test

Used to measure levels: **4 Puree**, **5 Minced & Moist**

- How sticky or **adhesive** is the sample?
- How well does the food hold together (**cohesiveness**)?

The food sample should

- Be **cohesive** enough to hold its shape on the spoon, but not sticky, crumbly or dry.
- Be **slippery** enough so that the full spoonful slides/pours off the spoon when the spoon is tilted sideways (or shaken lightly).
- Very little food left on the spoon.
- A scoop mound may spread or slump over only slightly on a plate.

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1. Spoon Tilt Test

Practice:

Fail X Too FIRM

Fail X Too STICKY

Even puree can even be a choking risk

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Practice Spoon Tilt Test

Pass ✓

Pass ✓

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Practice Spoon Tilt Test

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Spoon Tilt Test
Potato Puree

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<https://www.youtube.com/watch?v=3lmgVand0d8&feature=youtu.be>
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THICK & EASY

IDDSI Food Testing Methods

1. IDDSI Spoon Tilt Test
2. **IDDSI Fork Drip Test**
3. IDDSI Fork Pressure Test
4. IDDSI Fork/Spoon Separation Test
5. IDDSI Particle Size Compliance

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2. Fork Drip Test

Used to measure levels **3** and **4**

- Thick drinks (moderately and extremely thick); Smooth foods (liquidized and puree)
- Do they flow through the slots/tines of a fork?

3 Level 3 – Liquidized / Moderately Thick
• Drips slowly or in strands/dollops through the tines of a fork

4 Level 4 – Puree / Extremely Thick
• Sits in a mound or pile on top of the fork
• Only a small amount may flow through & form a tail below fork tines
• Does not flow or drip continuously through the fork tines

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Practice Fork Drip Test

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Practice Fork Drip Test

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Fork Drip Test
Potato Puree

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THICK & EASY

IDDSI Food Testing Methods

1. IDDSI Spoon Tilt Test
2. IDDSI Fork Drip Test
3. **IDDSI Fork Pressure Test**
4. IDDSI Fork/Spoon Separation Test
5. IDDSI Particle Size Compliance

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3. Fork Pressure Test

Used to measure levels **6** Soft & Bite-Sized, **5** Minced & Moist

Think about foods, like regular bread, that do NOT squash or change shape with fork pressure!

Fork Pressure Test
Meat

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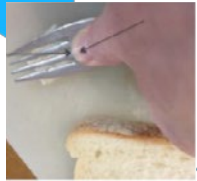
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3. Fork Pressure Test

- A fork can be applied to the food sample to observe its behavior when pressure is applied.
- Pressure applied to the food sample has been qualified by assessment of the pressure needed to make the **thumbnail** blanch noticeably white.




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Practice Fork Pressure Test


- Thumbnail blanch to white
- Sample squashes and does not return to original shape when pressure is released



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Practice Fork Pressure Test




Example is too dry and sticky

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Practice Fork Pressure Test



Example is moist/cohesive

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Check!
THICK & EASY

IDDSI Food Testing Methods

- IDDSI Spoon Tilt Test
- IDDSI Fork Drip Test
- IDDSI Fork Pressure Test
- IDDSI Fork/Spoon Separation Test**
- IDDSI Particle Size Compliance

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4. Fork/Spoon Separation Test

Used to measure levels **6 Soft & Bite-Sized**, **7 Easy to Chew**

- Test is good for Soft & Bite-Sized & Easy to Chew.
- Must be able to break food apart easily with the side of a fork or spoon.



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Chopstick Test
 No fork or spoon? You can test with fingers & chopsticks too!

Chopstick Test
Rice

<https://youtu.be/No0PFC6bDM>
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IDDSI Food Testing Methods

1. IDDSI Spoon Tilt Test
2. IDDSI Fork Drip Test
3. IDDSI Fork Pressure Test
4. IDDSI Fork/Spoon Separation Test
5. **IDDSI Particle Size Compliance**

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5. Particle Size Compliance
For **6 Soft & Bite-Sized**

ADULT:
Bite-size = 1.5 x 1.5 cm

- Adult thumb nail
- About the width of fork

AVERAGE ADULT AIRWAYS:

- Male = 21.5 mm
- Female = 17 mm

PEDIATRIC:

- Bite-size = 8 x 8 mm
- PEDIATRIC AIRWAY = 8 mm
- INFANT AIRWAY = 6.5 mm

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5. Particle Size Compliance
For **5 Minced & Moist**

Average particle size of chewed solids before swallowing

ADULT:
Lump size = 4 mm
Width between two tines of a fork (No longer than 15mm)

PEDIATRIC:
Lump size = 2 mm
(no longer than 8mm)

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Particle Size Compliance Test
IDDSI Fork Test

- The slots/gaps between the tines/prongs of a standard dinner fork typically measure 4mm.
- Helps test compliance for 4mm particle size measurement for adults.
- Note: Pediatrics is 2mm

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IDDSI FAQs
<https://iddsi.org/faq/>

See "Mixed Consistency" answers too.

Q: My facility serves sandwiches with moist, minced fillings. Can this be included in the Level 5 - Minced & moist diet?
A: As a general rule, bread products are considered a regular food texture (Level 7) and are not included in the Level 5 - Minced & moist diet.

Q: I've not heard of transitional foods before, what are they?
A: Transitional foods are used predominantly used by paediatric clinicians or clinicians who work with individuals who are not able to eat regular food. These foods are often used to help individuals transition from a regular diet to a more restrictive diet. They are often used to help individuals who are not able to eat regular food to eat a more restrictive diet. They are often used to help individuals who are not able to eat regular food to eat a more restrictive diet.

Q: Bread provides an opportunity to offer patients variety. Why is it considered a choking risk?
A: As a general rule, bread products are considered a regular food texture (Level 7). This decision is based on the choking literature where bread is often identified as a cause of choking (Smith et al., 1977; Elberg & Feinberg, 1992; South Australia Coronial Inquests, 1997; Trice et al., 2006; Beranek et al., 2009, 2009; Food Safety Commission of Japan, 2010; Lewis, 2014). Bread and sandwiches require the ability to both bite and chew. Although bread is soft and moist, it can be easily crushed or broken down into particles of flour or smaller due to its fibrous nature. In fact, the number of chewing strokes, chewing strength and capacity required to make bread swallow safely are about the same as those required to chew and swallow peanuts (Smith et al., 2000; Neumeier et al., 2005). Individuals who are not able to chew and swallow safely may have difficulty chewing to a safe enough size to be swallow-safe. Bread also requires lubricating with saliva for effective chewing (Neumeier et al., 2005). For individuals with dry mouth (e.g., medication side effects, poor oral hygiene, etc.), bread is often not a safe choice for swallowing. Swallowing in food sticking in the throat. Bread does not dissolve when wet but does become sticky. Sticky or adhesive foods are also considered a choking risk (Smith et al., 1977; Elberg & Feinberg, 1992; Lewis et al., 2006; Beranek et al., 2009, 2009). The ability to safely manage bread and sandwiches should be assessed on a case-by-case basis by a dysphagia specialist.

<https://iddsi.org/frequently-asked-questions/>
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Consumer Handouts for People with Dysphagia and Caregivers

Handouts in Pediatric and Adult, including:

1. Descriptions and pictures
2. Food Examples
3. Foods To Avoid

Go to:
 → IDDSI.org → Resources → General Resources
 → Consumer Handouts for Adults and Pediatrics

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Example of Audit Sheets

www.iddsi.org

Testing intended for **MINCED & MOIST**

Food feels moist and will leave fingers wet. **Not dry and crumbly.**

Food feels moist and will leave fingers wet. **Not dry and crumbly.**

→ IDDSI.org → Resources → Implementation Resources → Audit Sheets

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FOOD & DRINKS CLASSIFICATION AND TESTING ADULT & PEDIATRIC

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After the Webinar:

1. Refer to the IDDSI FAQs for answers to questions: <https://iddsi.org/faq/>
2. Hands on Food Testing: Play each of the IDDSI food testing videos, pausing in between so you can practice the testing methods. Videos can be found here: <https://www.youtube.com/channel/UCO19FDjwJR0L5svIGCVlqHA/vi/deos>
3. Watch Webinar 3: IDDSI: Testing measures for beverage quality control and safety.

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Additional Resources

- IDDSI Framework and Descriptors: https://ftp.iddsi.org/Documents/Complete_IDDSI_Framework_Final_31July2019...pdf
- IDDSI Framework Testing Methods https://ftp.iddsi.org/Documents/Testing_Methods_IDDSI_Framework_Final_31_July2019.pdf
- Full IDDSI Framework Poster with Foods and Drinks Classifications and Testing Methods (Adult and Pediatric) https://ftp.iddsi.org/Documents/IDDSI_Whole_Framework_A3_Poster_Final.pdf

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Additional Resources

- IDDSI Food Test Cards
 - https://ftp.iddsi.org/Documents/IDDSI_Reference_Card_Folded_DL_Sponsors_vers_4_FINAL_SPREADS.pdf
 - http://ftp.iddsi.org/Documents/IDDSI_Food_Test_Cards_USA_vers_89x51mm_FINAL_with_bleed.pdf
- Consumer Handouts for Adults and Pediatrics:
 - <http://iddsi.org/resources/> Click on General Resources, and then Consumer Handouts (Paediatric or Adults)

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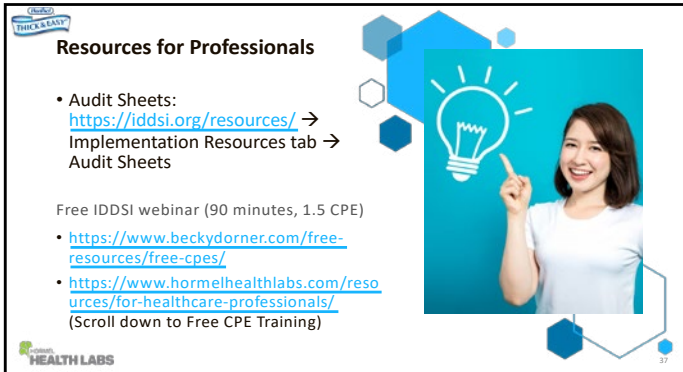


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Resources for Professionals

- Audit Sheets:
<https://iddsi.org/resources/> →
Implementation Resources tab →
Audit Sheets
- Free IDDSI webinar (90 minutes, 1.5 CPE)
- <https://www.beckydorner.com/free-resources/free-cpes/>
- <https://www.hormelhealthlabs.com/resources/for-healthcare-professionals/>
(Scroll down to Free CPE Training)

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