

Taking on the Challenges of IDDSI, *One Bite at a time!*

International Dysphagia Diet Standardisation Initiative



Katrina Woodward, MA, CCC-SLP, CDP

Med SLP, Chief Administrative Officer with SDX mobile FEES company

Acute & post-acute care experience in SNF, hospital, IRF,
outpatient & homecare

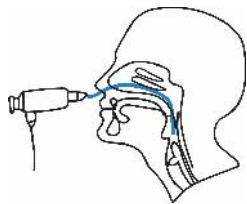
Advocate for INSTRUMENTAL testing access for ALL

Speaker & Blogger for Thick-It & consultant to Roche Dietitians

USIRG Co-Chair for Communications & Advocacy

Mass Speech-Language-Hearing Assoc VP of Ed & Planning

This is what I do...



FUNCTIONAL
fiberoptic

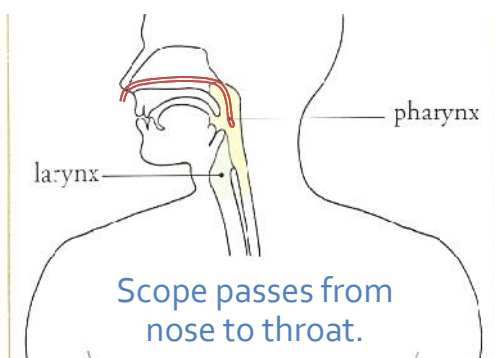
Endoscopic

Evaluation of

Swallowing



FEES: PRECISION testing with a functional dysphagia diagnosis.

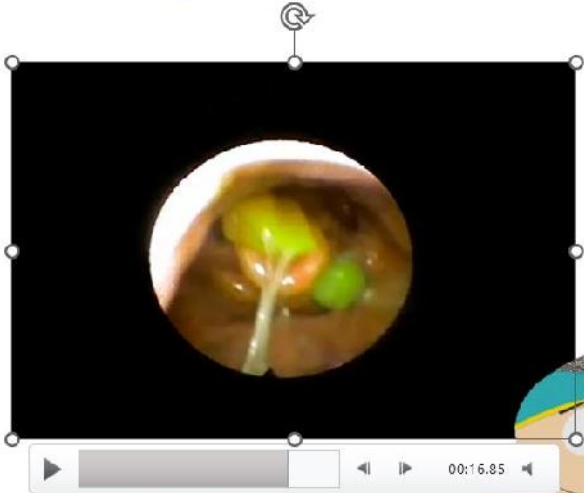


Adult-sized FEES scope tubing is like a piece of cooked spaghetti.

When it's a beautiful day in the neighborhood...

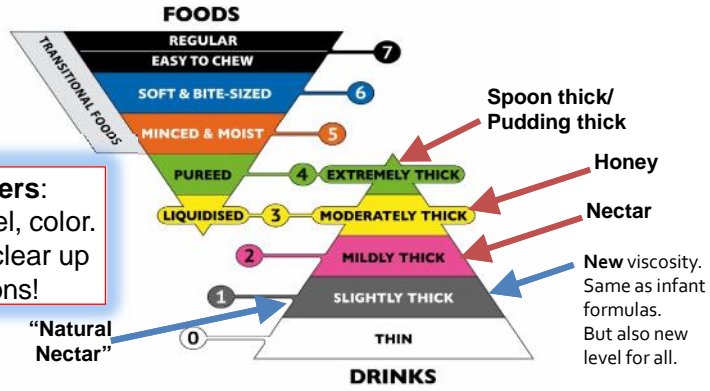


...and sometimes, not so much!



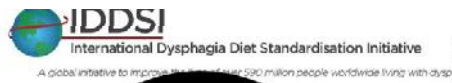
IDDSI FRAMEWORK: The power of 3

3 Identifiers:
Number, label, color.
New terms clear up confusions!



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Derivative works extending beyond language translation are NOT PERMITTED

IDDSI evidence abounds!



What is the IDDSI Framework?

The IDDSI Framework consists of 8 levels (0-7), which are measured from Levels 0-3. The IDDSI Framework provides a common terminology to describe textures and drink consistencies.

Click on the images to view more information or to download a window.

[IDDSI Desirable Definitions](#)
[IDDSI Temp. Methods](#)
[Evidence Statement](#)

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ORIGINAL ARTICLE

The Influence of Food Texture and Liquid Consistency Modification on Swallowing Physiology and Function: A Systematic Review

Carolina M. Steele¹, Wernard Abubakar¹, Sara Ayyub¹, Carl E. A. Buhse¹, James Chen¹, Julie A. N. Cohen¹, Kim Coates¹, Roberto O. Dumas¹, Janice Duvestin¹, Laila Giese¹, Ben Hinson¹, Vitor Lima¹, Caroline Leroy¹, Chelsea Lohde¹, Ahmad Napp¹, Adriel M. Namasooyan¹, Wafar N. Nadeem¹, Sage Okamoto¹, Christina H. Smith¹, Erika Wang¹

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Abstract: Texture modification has become one of the most common forms of intervention in dysphagia and is widely considered important for promoting safe and efficient swallowing. However, as there have been conflicting evidence with respect to the terminology used to describe levels of liquid consistency or food texture modification for clinical use. As a first step toward building a common taxonomy, a systematic review was undertaken to identify empirical evidence describing the impact of liquid consistency and food texture on swallowing behavior, multi-angle nasal splanter, 10,147 nondysphagic and which were essential for evidence. A search was performed across multiple databases, including PubMed, to identify relevant research. A total of 480 articles were reviewed for 480 of these articles, which met the inclusion criteria. Of these, 35 studies were found to contain specific information comparing oral processing swallowing behavior for at least two liquid consistencies or food textures. Qualitative synthesis revealed that 11 trials with respect to the impact of modifying liquid

Keywords: Dysphagia, Food texture, Liquid consistency, Swallowing physiology, Systematic review

Correspondence: C. E. A. Buhse, e-mail: carolabuhse@idssi.org

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IDDSI is a validated TOOL to IMPROVE swallowing SAFETY.

Why is IDDSI Important?

Alexander, 58, gagging on toast at breakfast, died on chicken at lunch (2014, AU)

Maria, 9 months, choked on Shepherd's Pie at Nursery (Great Manchester UK)

Male, 46, choked on food Nottingham Mental Health Unit (2015, UK)

Male, 45, choked on hazelnut spread and died

Miss Belle, 85, choked on carrots and peas (AU)

Herman, 72, choked on Indian-Indian goodness, temp-cooked food (Singapore)

Ellen, 88, with poor dentition choked on partially chewed food (Canada)

John, 84, on high diet choked on toast and died (US)

Yoko, 55, choked on toast at a group home and died

Fanako, 78, with Alzheimer's choked on toast and died (2016)

Male, 76, in aged care, choked on chocolate cake and died

Margjita, 65, choked on sandwich



How does IDDSI promote safety?



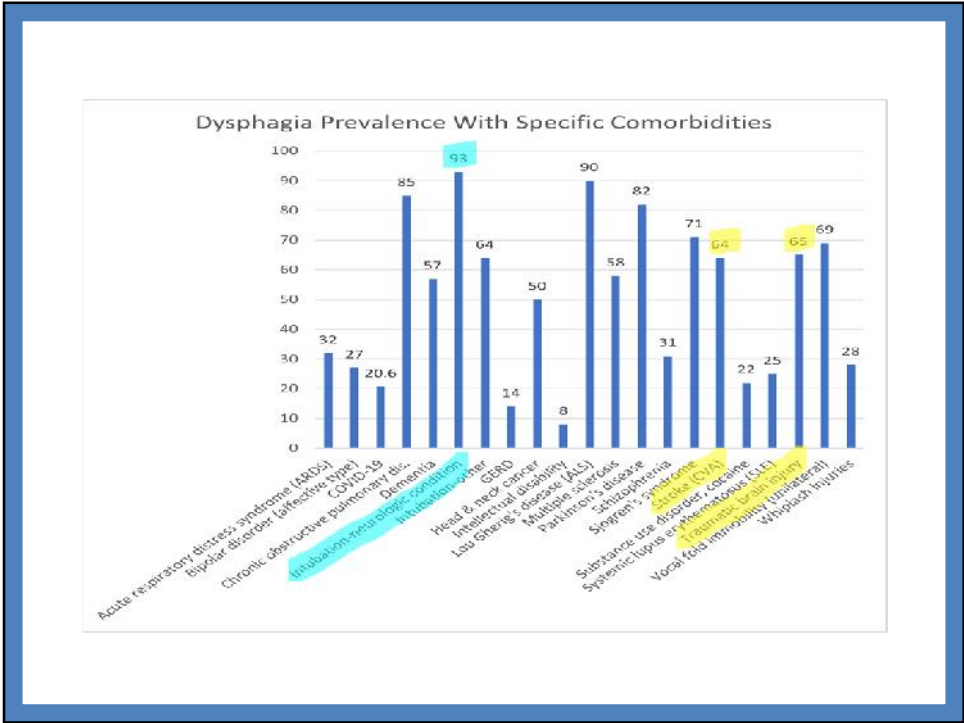
- Safety through...
- common terminology for...
- all ages...
- all care settings ...
- all cultures.



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Choking-Risk Connections in TBI

- “TBI is associated with higher rates of psychiatric comorbidities including posttraumatic stress disorder (PTSD), anxiety, mood disorders, schizophrenia, and substance use disorders; many of these conditions are significantly associated with increased mental health care utilization (Coxe et al. 2021; Narrow et al. 2000).”
- Death rate due to asphyxiating on FOOD in the *acute psych inpatient* population is 100x that of the general population!
 - BUT WHY???
 - Pre-existing behaviors/tachyphagia?
 - Movement disorders/TD?
 - Other side effects? Xerostomia?



Is IDDSI mandatory?

AND & ASHA speak out

AND (Academy of Nutrition & Dietetics)

- Oct 2016: Academy leaders voted to adopt
- Jan 2017: Academy & ASHA announce support of IDDSI and 5-1-19 official launch date
- Jan 2021: as of Oct, 2021, IDDSI is the only texture modified diet in the Nutrition Care Manual
 - *a "living document"

ASHA (Am Speech-Lang-Hearing Assoc)

- 2016: Passed resolution to support
- Jan 2017: "...tremendous step forward in collaborating care..."; and 5-1-19 official launch date
- ASHA SOP; ASHA has *never* prior endorsed a diet (did not endorse NDD)

Where are professional standards of practice in regulations?

State Operations Manual Appendix PP - Guidance to Surveyors for Long Term Care Facilities : §483.21(b)(3) Comprehensive Care Plans

The services provided or arranged by the facility, as outlined by the comprehensive care plan, must-

- Meet professional standards of quality.**

INTENT §483.21(b)(3)(i)

The intent of this regulation is to assure that services being provided **meet professional standards of quality.**

GUIDANCE §483.21(b)(3)(i)

"Professional standards of quality" means that care and services are provided according to accepted standards of clinical practice.". standards regarding quality care practices may be published by a professional organization,..."

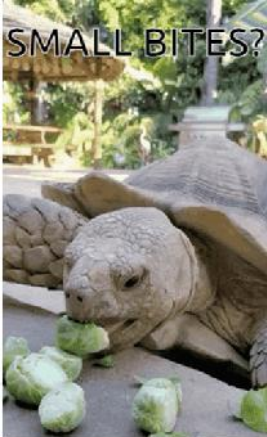
"...Possible reference sources for standards of practice include:

"...standards published by professional organizations such as the American Dietetic Association,..."

Why do we “new & improved” diet levels?

- “Staff didn’t know how big bite-size should be...”
- “It was a two-bite food” that a resident on “cut-up diet” choked on
- Resident rang call bell & waited for someone to cut up her grinder but when she tired of waiting and took a bite she choked (whole sausage)
- Poured pre-thickened honey lemon water into pre-poured cups of thin to create a less-thick liquid
- Lumpy, bumpy described unacceptable puree...also too salty & unpalatable reported in citation
- No recipe followed, items added into blender with no measurements...was supposed to be fortified, error on 17 diets
- Supposedly “bite-sized” and “soft” food that resident choked on was a melon piece shown on x-ray 2.7cm x 2.0cm (small enough to enter the airway but very difficult to cough out)

**WE CAN DO BETTER.
IDDSI IS “HOW.”**



SMALL BITES?

RISK MANAGEMENT

EXAMPLE: Food pieces for residents at risk for choking are SMALL ENOUGH AS TO NOT OBSTRUCT THE AIRWAY.

Soft & bite-sized particle sizing 15mm x 15mm

6 SOFT & BITE-SIZED 



Thumb nail blanched to white

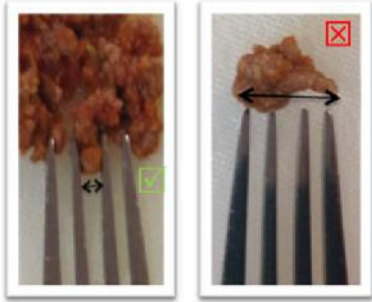


Sample squashes and does not return to its original shape when pressure is released

Minced & Moist L5 particle sizing is 4mm x 15mm



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



CONSIDERATIONS for PARTICLE SIZE



21-23mm Women, 25-27mm Men



SB6





QUALITY CONTROL

EXAMPLE: Consistent recipes & food production reduces waste AND improves resident satisfaction.

25

Taste test...which would you rather eat???

A lil' TLC goes a long way!

A.) Scoops



B.) Plated



Recognize that IDDSI may look a little different...

OLD SCHOOL
NDD1/puree



Fresh Dish
4 Pureed/PU4



NO MORE EXTRA GRAVY/SAUCE on the side...or volcanoes;
it is MIXED IN to achieve proper moisture. (Spoon-tilt test)

OLD SCHOOL
NDD3/dysphagia advanced



Fresh Dish
6 Soft & Bite-Sized/L6



Soft & Bite-Sized food
must pass both
food piece size and
softness tests!



IDDSI Strengths & Challenges

STRENGTHS

- Consistent consistencies with CLEAR names.
- Tools to MEASURE to a STANDARD.
 - Fork & spoon
- Transitions of care will speak the same language.
- Particle size matches anatomy to prevent airway blockage.
- Individualize diets.
- Transitional solids-great!

CHALLENGES

- Bread is REGULAR
- Jello-is REGULAR
- Particles have to match
- Moisture is incorporated
- Puree & MM5 can't be too sticky
- Transitional solids-huh?

29

PRODUCTION Strengths & Challenges

STRENGTHS

- Develop recipes for consistent production across cooks
- Follow a standard that can be measured/AUDITED.
- More attention to quality & production.
- Staff will know WHAT to expect for a diet served at each level.


CHALLENGES

- It's a MAJOR CHANGE!
- It's a PROCESS.
- Need for audits to ensure production
- Diet individualization: Policies are a must to keep practice & language consistent.
 - Bread
 - Jello
 - Mixed consistencies
- Developing recipes is work upfront
- Choosing your "always available" menu

GOING OUTSIDE of the BOX

Bread	EXCEPTIONS
IDDSI	
CHOICE	Dual textures, Jell-O

...TRANSITIONAL SOLIDS...



31

Oh, dough! What about bread?

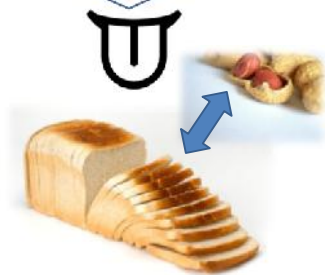


I'm the problem, it's me.

31

IDDSI labels bread as a REGULAR FOOD.

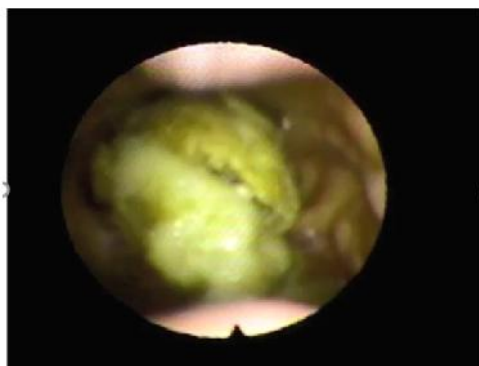
“The number of chewing strokes, chewing strength and stamina required to make bread swallow-safe are about the same as those required to chew and swallow peanuts safely.”



How can we manage this?

- Eval for bread and make ALLOWANCES?
- Write a policy to ALLOW for ALL LEVEL X and then write for specific residents not allowed?
- Use a RG7 with SB6 or MM5 meats?
- CHOOSE WHAT WORKS FOR YOU, MAKE IT A POLICY AND USE THE SAME TERMINOLOGY.

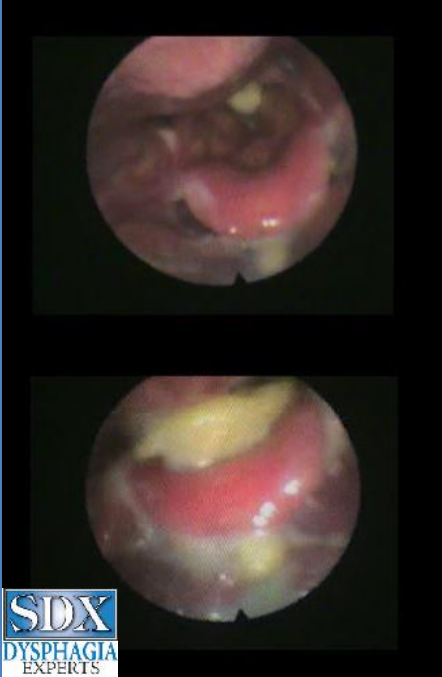
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AIRWAY OBSTRUCTION AS SEEN ON A FEES;



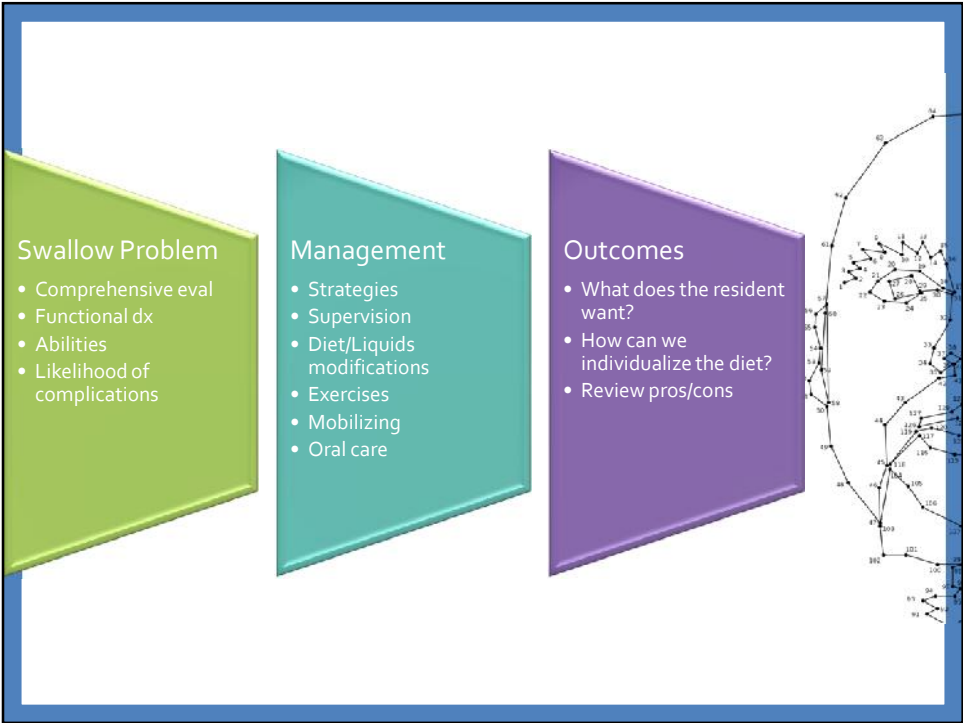
BUT DID YOU HEIMLICH?!





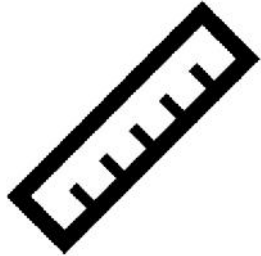
TO END ON A POSITIVE NOTE, PARTICLE SIZE FOR THE WIN!

WATCH THAT ASPIRATE BE EJECTED RIGHT OUT OF THE TRACHEA.

WHAT does IDDSI measure?

- PARTICLE SIZE
- TEXTURE
- SOFTNESS
- MOISTURE
- THICKNESS
- COHESIVENESS
- STABILITY (TEST @ 0, 15, 30)



WHAT are the IDDSI tools & tests?

Solid Textures

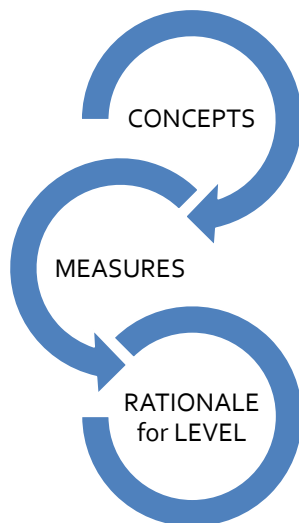
- Fork Pressure Test
- Spoon Pressure Test
- Fork Drip Test
- Spoon Tilt Test
- ADDITIONAL
 - Finger Test
 - Chop Stick Test

Liquid Consistencies

- Syringe Test
- Spoon Tilt Test
- Fork Drip Test

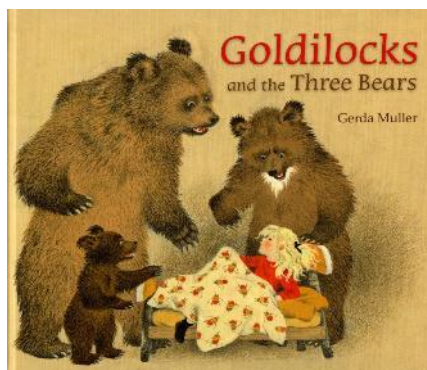


Time to Break it Down!



39

A WORD ON DRINK LEVELS: Too thin? Too thick? Just right!



- We can TEST for correctness
 - FLOW TEST, not "eyeballed"
- We've got an EXTRA level!
 - In the research: APPLICATIONS FOR THIS IN ICU COVID ENGLAND attributed to MS changes
 - How about for those with respiratory changes too?
 - COPD
 - CHF
 - COVID
 - Active PNA
- When will we see it?
 - Commercial needs to catch up,

Thickened liquids comparison

1 2 3 4

...but often when I do a FEES, this is what I see.
This is when thickened liquids may be a solution.

At first, a clear airway.



But then, LIQUID ENTERS THE AIRWAY



Tracheal aspiration



Too THIN is a concern when liquids are incorporated with solids.

MIX IN MOISTURE

Liquid **SHOULD NOT** separate.

- For MM₅, PU₄ should be at least MILDLY THICK

- Fork drip test.



SOFTNESS MATTERS

"CHEWABILITY"

WHY does it matter?

6 SOFT & BITE-SIZED 

- SB6, MM5
- FORK PRESSURE TEST
- What does that look like?



Thumb nail blanched to white



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

- EC7
- Can you cut it with the side of the fork?

Fork/Spoon Separation Test



Must be able to break food apart easily with the side of a fork or spoon



TOO STICKY?

WHY does it matter?

- SB6, MM5, PU4....Residue is a MAJOR issue!
- Spoon (or fork) tilt



PUDDING



PARTICLE SIZE

Q: WHAT SIZE SHOULD THE PIECES BE?

A: Small enough to PASS BETWEEN THE VOCAL CORDS for a patient/resident that is a CHOKING RISK.

LET'S REVISIT: CONSIDERATIONS for PARTICLE SIZE



21-23mm Women, 25-27mm Men

MM5



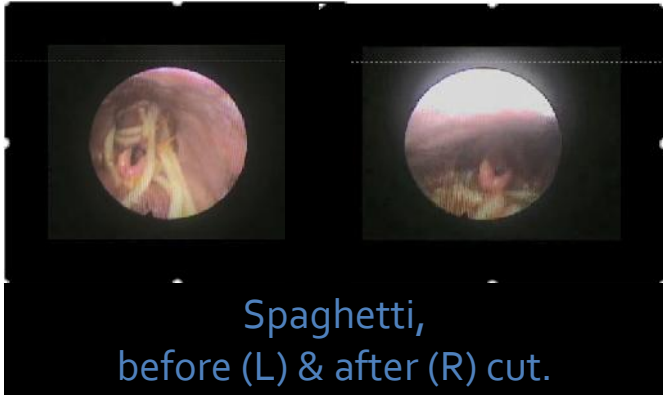
SB6



EC7

NO particle size restriction exists.

Swallowing Safety: Particle Size



**YOU GET EXTRA SAUCE
AND YOU GET EXTRA SAUCE
EVERYBODY GETS EXTRA SAUCE!**

MOISTURE

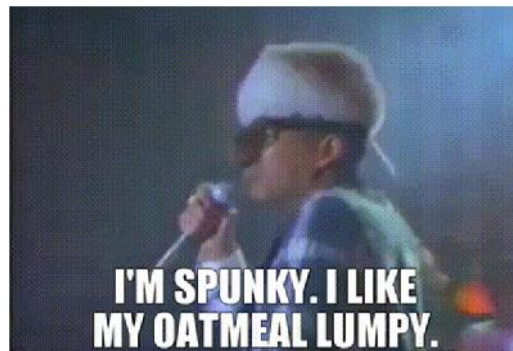
MIX IT IN!
No more "mashed potato volcanoes"

**SCRAMBLED EGGS,
MISSING MOISTURE.**

SDX
DYSPHAGIA
EXPERTS

WHY does moisture matter?

- It helps the **WHOLE ALIMENTARY CANAL** move that food on through the system!
 - Improves bolus cohesion
 - Improves oral clearance
 - Improves pharyngeal clearance
 - Facilitates esophageal transit
- PU₄, MM₅, SB₆...add that moisture. Key word: **INCORPORATE IT.**
- PU₄, MM₅...mix it in! Make sure that it's **AT LEAST MT₂** (up to EX₄)...thus preventing dual textures/too watery.



TEXTURE

IF IT'S LUMPY, BUMPY or GRITTY, IT'S NOT PUREED.

Too THIN is a concern when liquids are incorporated with solids.

MIX IN MOISTURE

Liquid **SHOULD NOT** separate.

- For MM5, PU4 should be at least MILDLY THICK

- Fork drip test.



55

If your PU4/Pureed looks like the one in the middle...it's NOT pureed.

WHY does it matter?

SMOOTH=PU4

Easily mashable lumps=MM5

Soft, tender & bite-sized=SB6



56

Q: Is FORMED puree a solution?

A: It *can* be, *if* it tests "in."
 BUT...you can (& should) *modify bread too!*

FORMED (pic by Hormel)



Thick & Easy® Shaped Pureed Frozen Foods – Variety Packs

IDDSI stipulates that **IF** it is firm enough to pick up & bite, at serving temp, it is **NOT PU4**.

PLATED & PIPED (THICK-IT)

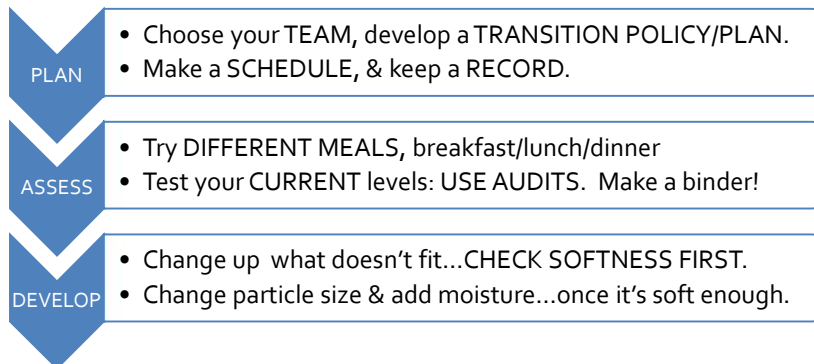


Puréed Southwest Style Chicken Tacos



Puréed Barbecue Beef Sandwich

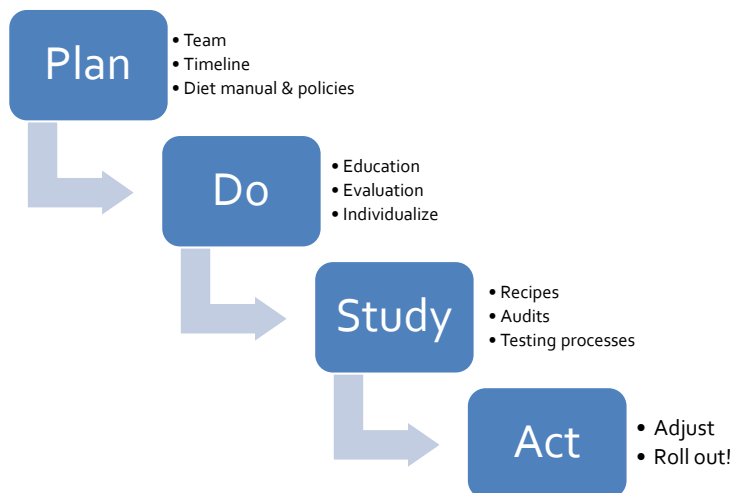
When it comes to testing, where do we start?



IDDSI IS A TRANSITION.

It is not without its challenges.

IDDSI is an ongoing process.





TELL ME MORE

TELL ME MORE

VISIT IDDSI.ORG

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