

1st annual Nutricia Blenderized Tube Feeding *MASTERCLASS*

February 8th 2024



Blenderized Tube Feeding: What does the Science Say?

February 8, 2024



**Teresa Johnson,
DCN, RDN, FAND**

Professor in the Department of
Kinesiology and Health Promotion at
Troy University

- Nutricia North America, Consultant
- Abbott Nutrition, Consultant
- Functional Formularies, Consultant
- Nestle, Consultant

*None pose any conflict of interest for this
CE-eligible presentation*

*The opinions reflected in this presentation are those of the
speakers and independent of Nutricia North America*

- Participants in this activity will learn to:
 - Summarize potential benefits of blenderized tube feeding in adult and pediatric populations, as reported in scientific literature.
 - Describe the caregiver and patient perspective regarding blenderized tube feeding in published papers.



An introduction to Blenderized Tube Feeding



Blenderized Tube Feeding (BTF)

Blenderized tube feeding (BTF) is defined as the use of blended foods and liquids given directly via the feeding tube.¹

- homemade BTF
- commercial formula mixed with pureed baby food
- commercially available ready to use BTFs



Motivation to begin BTF¹⁻³

- Growth/weight goals met
- Reduced gagging, retching, nausea, vomiting, diarrhea
- Reduced use for gastrointestinal (GI) medications
- Improved oral intake for appropriate patients
- Improved gut microbiome diversity
- Reduced hospitalizations
- Ability to provide a physiologic, nurturing feeding experience





A closer look at Pediatric & Adult BTF Research



Blenderized food tube feeding in very young pediatric patients with special healthcare needs

Shawna Walker, BS, RDN, Teresa W. Johnson, DCN, RDN, Holly Carter, PhD, RN, et al.
Nutr Clin Pract. 2023;1-8.

*“BTF may be prepared from a variety of whole foods with and referred to in this article as whole-food BTF (WFBTF). Alternately, BTF may be commercially prepared food-based tube feeding, which are **formulations** of a food mixture referred to in this article as commercial BTF (CBTF).”¹*



*“WFBTF options included homemade formulations prepared by caregivers using recipes developed by the RDN managing the patient's nutrition care. **Another WFBTF used by caregivers in this study is a commercially available product containing only blended whole foods available in 6 varieties...All varieties were used in feeding.**”¹*



Blenderized food tube feeding in very young pediatric patients with special healthcare needs

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- Retrospective chart review, 16 male and 18 female, n=34
- Average age of transition to BTF = 14.7 months
- Average time on BTF = 15.3 months
- Multiple diagnoses including GI, neurologic, genetic, pulmonary, congenital cardiac, etc.
- Formula prior to transition = 32% bovine based, 24% hydrolyzed based, 13% amino acid-based
- 56% were transitioned due to parent request
- BTF (17.6% home made; 82.4% commercial BTF) → 56% full and 44% partial

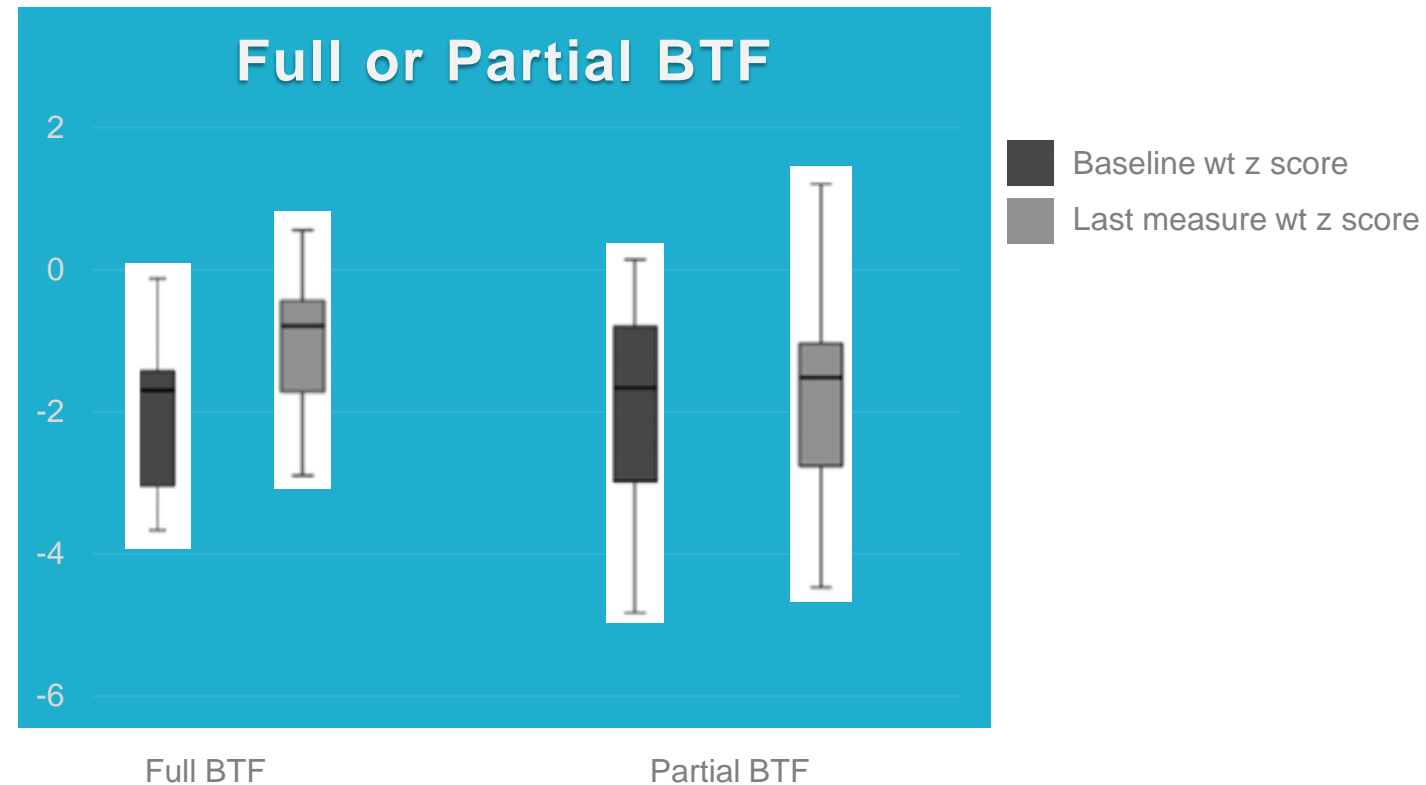


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Results

- Increase in oral intake
- Decrease in GI medication use
- Reduction in adverse GI symptoms
- Growth improved for weight, length, weight for length

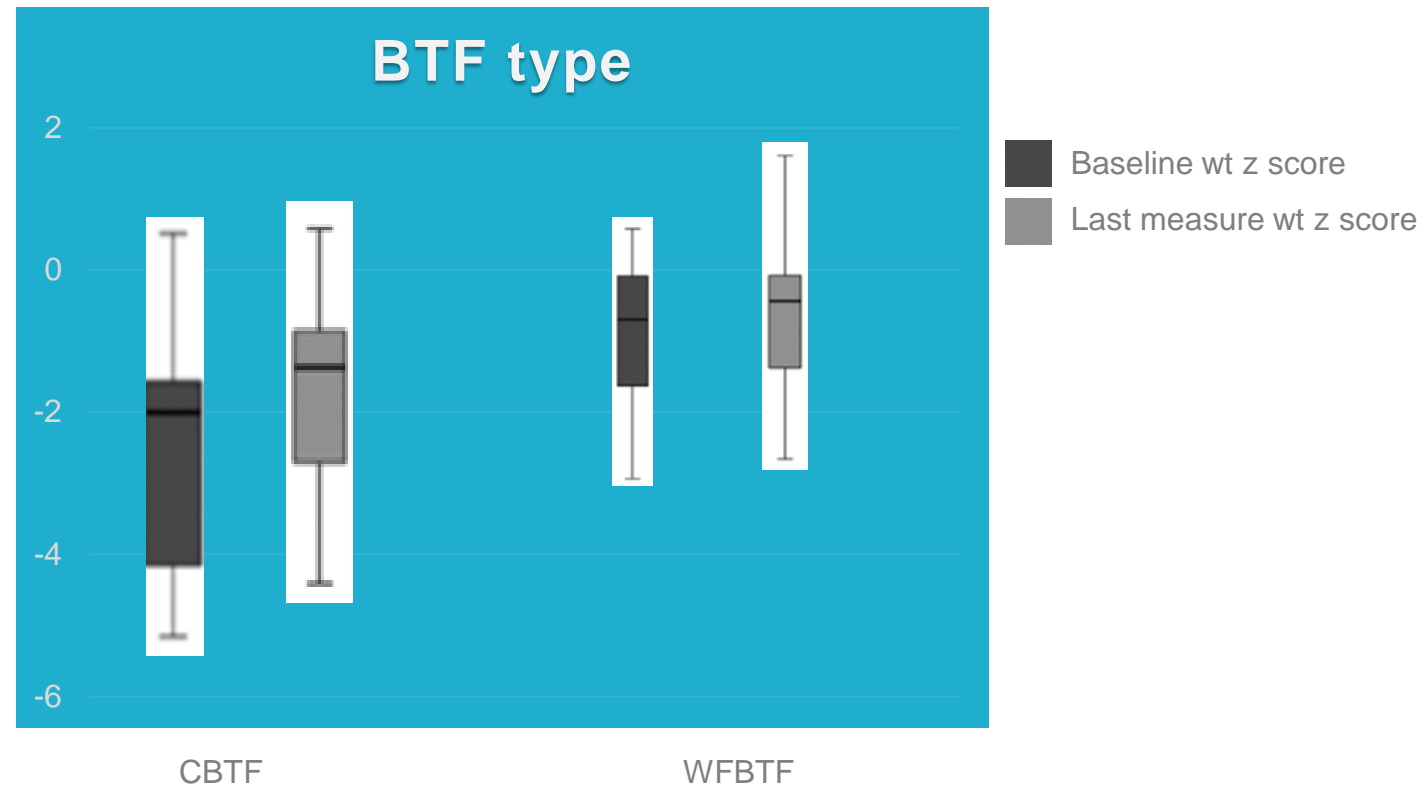


Blenderized food tube feeding in very young pediatric patients with special healthcare needs

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 Nutr Clin Pract. 2023;1-8.

Limitations

- Small sample size
- Short follow up period
- Some data reported by caregivers



Blenderized food tube feeding in patients with head and neck cancer

Spurlock A, Johnson T, Pritchett A, et al. Nutr. Clin. Pract. 2022;37:615-624.

Methods

- Prospective
- Open Label
- Head and neck cancer (HNC) requiring gastric tube feeding (TF) at initiation of chemoradiation



Blenderized food tube feeding in patients with head and neck cancer

Spurlock A, Johnson T, Pritchett A, et al. Nutr. Clin. Pract. 2022;37:615-624.

Methods

- Prospective
- Open Label
- HNC requiring gastric TF at initiation of chemoradiation

Methods

- Patients completed surveys [GI symptoms, quality of life (QOL)] and weight assessed weekly as much as possible

Methods

- Patients deemed safe for swallow were encouraged to eat food by mouth
- RDNs prescribed enteral feeding to meet 100% of estimated needs



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Subjects

- HNC requiring gastric tf at initiation of chemoradiation
- 30 patients enrolled
 - 16 completed;
 - 62.5% male
 - avg age 58.7



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2 weeks CEF

3 weeks 50% BTF

Afterwards resume 100% CEF



Blenderized food tube feeding in patients with head and neck cancer

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After 3 weeks on BTF, no patient wanted to return to CEF

All except 2 patients opted for 100% BTF

No one withdrew from the study due to issues with BTF



Blenderized food tube feeding in patients with head and neck cancer

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BMI

- Scores improved or held steady for 56.5% of participants
- 1 pt had low BMI – but remained steady



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Symptoms

- Overall symptoms improved on BTF
 - Pain
 - Vomiting
 - Constipation
 - Diarrhea
 - * Constipation
 - * Gas/bloating
 - * Nausea



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 - * Nausea

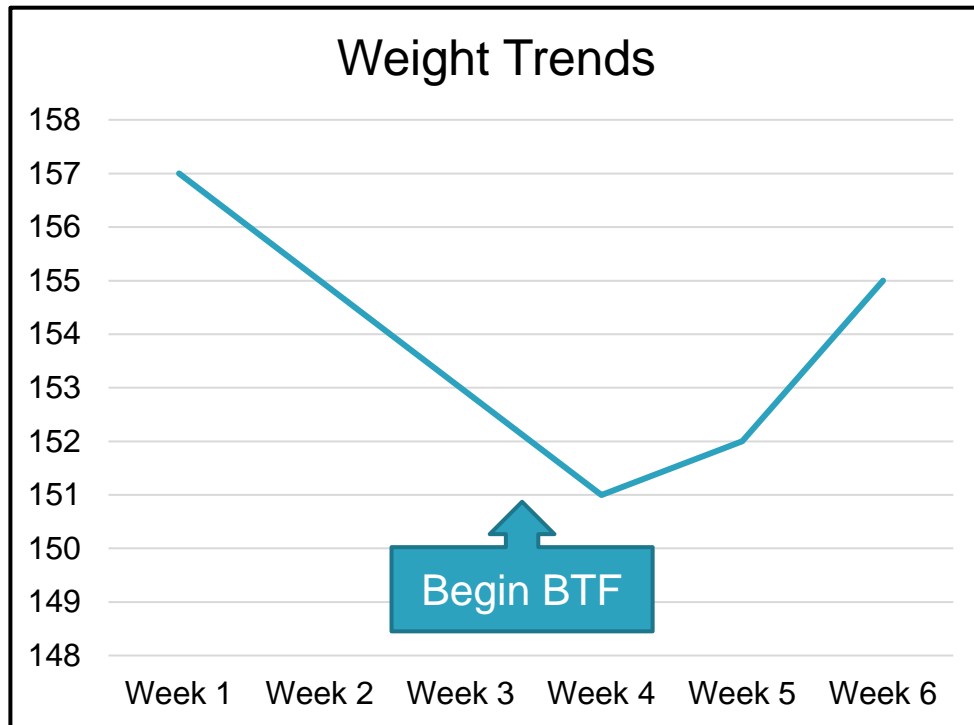
Caloric Intake

- 75% used BTF 7 days a week
- Caloric intake of BTF improved with 76-100% BTF
- # pts receiving supplements remained steady
- Increase in solid foods from 50% to 77.7%



Blenderized food tube feeding in patients with head and neck cancer

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Typical results

Significant weight loss weeks 3-4

Weight loss and eating difficulty persist after treatment ends

Spurlock, et al results

Weight loss at 3 weeks and then a rebound

BTF initiated at week 3



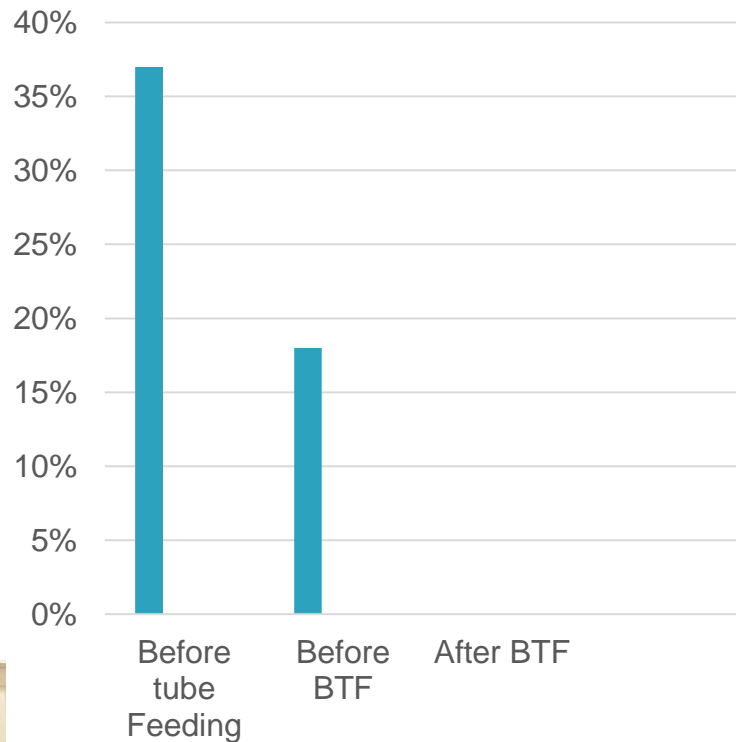
Weight/BMI observations coincide with increased use of BTF

Potential for addition of BTF to arrest weight loss at a critical point in chemoradiation therapy has implications for post treatment outcomes

Blenderized food tube feeding in patients with head and neck cancer

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Quality of Life



Bad or Very Bad

92.7% disagreed or strongly disagreed that BTF overwhelmed their caregiver

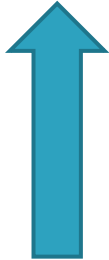
Only 4 instances of clogged tubes was reported but were easily resolved with tube manipulation




Blenderized food tube feeding in patients with head and neck cancer

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Caloric Intake

- Amount of BTF contributing to total energy needs increased
 - Intake of solid foods increased (50% to 77.7%)
 - Nearly all intake was real food either PO or BTF
- 

GI Symptoms

- Vomiting decreased
 - Constipation decreased
 - Nausea decreased
 - Gas/bloating decreased
 - No reports of diarrhea at week 6
- 



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Limitations of Study

1

- **Small sample size due to complexity of pt population**
- (e.g. hospitalization, death, discontinuance of tube feeding)

2

- **Impact of Covid-19**
- (patients unable to come in for assessment or receive BTF)

3

- **Physical frailty of patients unable to stand for weight measurement**



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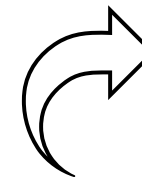
“BTF is pleasant”

“I feel full (haven’t felt in a longtime)”

“The product is very beneficial to me”

“BTF takes a little longer but I don’t mind because it improved my symptoms”

“It (BTF) saved my life”



Scan QR code to access study

A Parent's Perspective

“One day I read the label on my son’s tube feeding formula and realized that he had not had a fruit or vegetable in seven years.

That day I switched to blenderized tube feeding and it was the best decision I ever made.”

Resource Tools to Use in Practice

Scan QR codes to access helpful practice tools from the American Society for Parenteral and Enteral Nutrition (ASPEN)



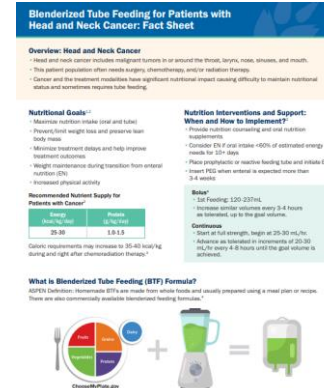
Consumer Guide for Cancer Patients



Blenderized Tube Feeding Podcast



Clinician Fact Sheet



Practice Tool, BTF Practice Recommendations, Sections 1 and 4



January 2024

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Walker S, Johnson TW, Carter H, Spurlock AY, Johnson K, Hussey J. Blenderized food tube feeding in very young pediatric patients with special healthcare needs. *Nutr Clin Pract*. Published online March 5, 2023;1-8.

*Thank
You!*



**Teresa Johnson,
DCN, RDN, FAND**

Professor in the Department of
Kinesiology and Health Promotion at
Troy University

Getting to the Thick of Blended Food for Tube Feeding

February 8, 2024



**Sharon Weston,
MS, RD, CSP, LDN, FAND**

Sr. Clinical Nutrition Specialist

- Nutricia North America, Consultant
- Kate Farms, Consultant (2022)
- Dr. Schar Institute, Speaker (2023)

*None pose any conflict of interest for this
CE-eligible presentation*

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Participants in this activity will learn to:

- Recognize the unique viscosity characteristics of blended tube feeding.
- Demonstrate how to measure using the International Dysphagia Diet Standardisation Initiative (IDDSI) Framework.

Benefits of BTF

- ❑ Provides whole foods as enteral feeding
- ❑ Improves feeding tolerance
- ❑ Reduces gagging, retching and vomiting
- ❑ Improves constipation
- ❑ Improves oral intake
- ❑ Can reduce the need for medications (reflux, constipation)



Original Communication

Pureed by Gastrostomy Tube Diet Improves Gagging and Retching in Children With Fundoplication

Scott Pentiuk, MD^{1,2}; Therese O'Flaherty, RD^{1,3}; Kathleen Santoro, RD^{1,3}; Paul Willging, MD^{1,4}; and Ajay Kaul, MD^{1,2}

Original Communication

Blenderized Enteral Nutrition Diet Study: Feasibility, Clinical, and Microbiome Outcomes of Providing Blenderized Feeds Through a Gastric Tube in a Medically Complex Pediatric Population


Kelsey Gallagher RD, Annika Flint PhD, Marialena Mouzaki MD, MSc, Andrea Carpenter RD, Beth Haliburton RD, Louise Bannister RD, MSc, Holly Norgrove RN, Lisa Hoffman OT ... See all authors ▾

First published: 16 January 2018 | <https://doi.org/10.1002/jpen.1049> | Citations: 75

Health Outcomes and Quality of Life Indices of Children Receiving Blenderized Feeds via Enteral Tube

Bridget Hron, MD, Eliza Fishman, BA, Margot Lurie, BA, Tracie Clarke, MS, Zoe Chin, CPNP, Lisa Hester, CPNP, Elizabeth Burch, CPNP, and Rachel Rosen, MD

Blenderized food tube feeding in very young pediatric patients with special healthcare needs

Shawna Walker BS, RDN¹ | Teresa W. Johnson DCN, RDN²  | Holly Carter PhD, RN² | Amy Y. Spurlock PhD, RN³ | Kelly Johnson DNP, RN² Jenna Hussey DNP, RN²

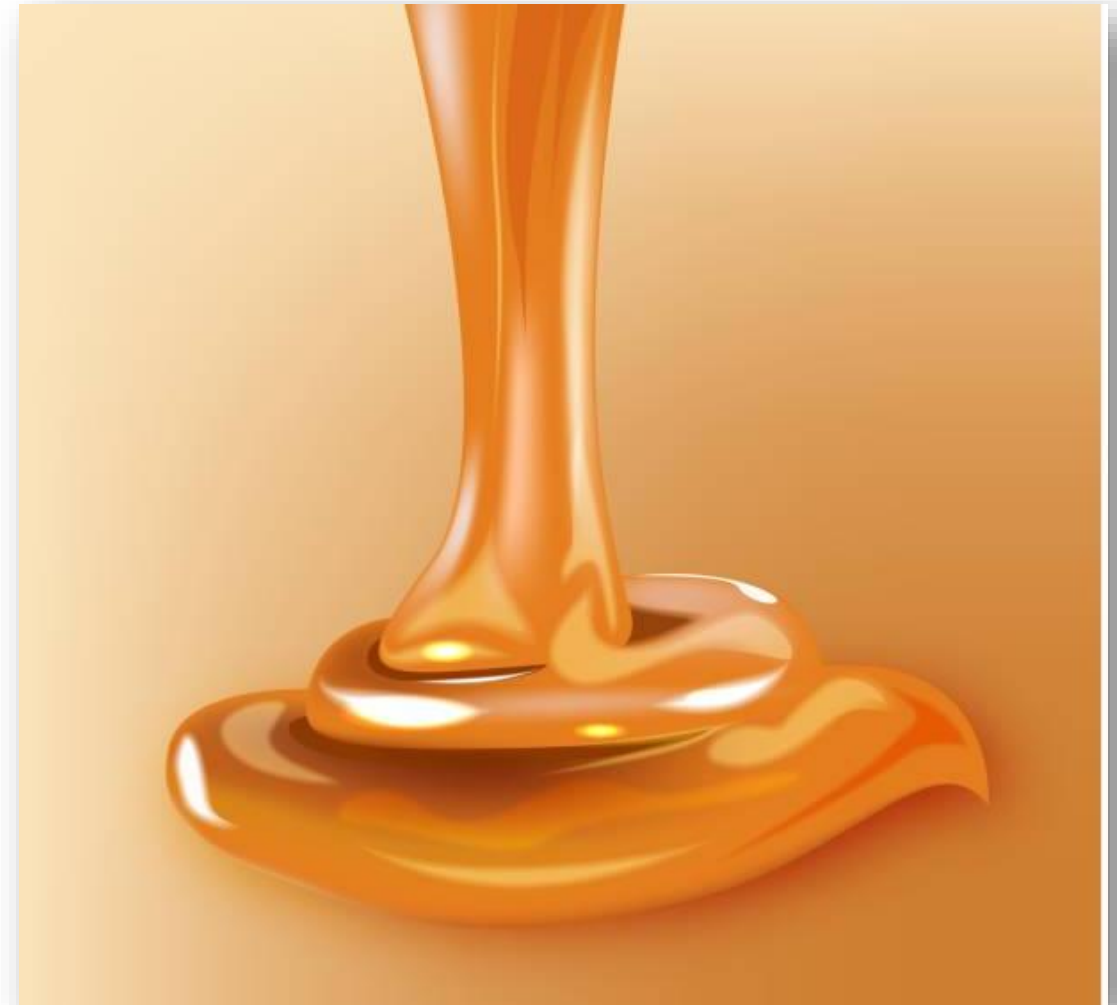
BTF Viscosity

- The thicker nature of BTF may be preferred to manage certain intolerances [gastroesophageal reflux (GER), aspiration, retching, gagging]
- Determining the viscosity can relate to the choice of delivery via an enteral access device
- Understanding differences in viscosity can help clinicians guide patients to make best choices to suit their individual needs



BTF: Variations in Viscosity

- Commercial and homemade BTF can range from slightly thick to extremely thick
- Ingredients used in BTF can modify thickness
- Seasonal changes of ingredients
- Temperature may also impact viscosity
- Strength/ power of blender
- Viscosity level should be taken into account when choosing a commercial product or using a homemade blend



Freezing and Thawing BTF

- Freezing BTF is a common practice
- Freezing and thawing blends can lower the viscosity significantly
- This may impact delivery and may result in clinical tolerance differences



Freshly Prepared HBF			
	Viscosity (cP)	Torque (%)	Temperature (°C)
Sample 1	7570	63.10	21
Sample 2	7438	62.00	21
Sample 3	7282	60.70	21

N (sample size)	3	3	3
Mean	7430	61.93	21
Standard Deviation	144	1.20	0
Standard Error in the Mean	83	0.69	0

Frozen and Thawed HBF			
	Viscosity (cP)	Torque (%)	Temperature (°C)
Sample 1	1416	11.80	21
Sample 2	1368	11.40	21
Sample 3	2172	18.10	21

N (sample size)	3	3	3
Mean	1652	13.77	21
Standard Deviation	451	3.76	0
Standard Error in the Mean	260	2.17	0

Choice of Blenders and Blending Time

- Consider the physical properties of foods used
- Length of need of BTF may warrant the investment in an expensive blender
- Increasing blending time may help reduce viscosity



Dilution of BTF: To Thin *but not Too Thin*

- The addition of free water to commercial blends varies significantly in clinical practice
- Thinning may help with delivery
- Increased intake of free water may negatively impact patient outcomes



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Stir Shake or Blend to Thin?

- A variety of methods can be used to reduce viscosity of BTF when adding liquid
- Methods vary most when >30% additional water is added
- **Take caution as to not over thin**



Stir



Shake



Blend

“Excess thinning could potentially result in diminishing the clinical benefits that BTFs incur due to viscosity.”¹

Viscosity and Pump Delivery

- Inaccurate volumes of BTF delivered by pump could contribute to poor weight gain
- Reduction in delivered volumes has been shown for moderate and extremely thick formula as compared to thin formulas
- Best practices should be done to optimize delivery



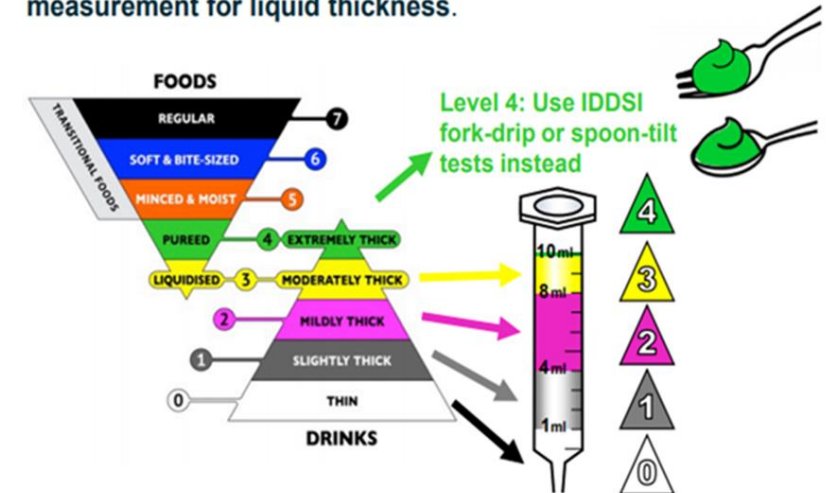
<https://www.youtube.com/watch?v=Cbvza6KAFI4>

How to Measure BTF Viscosity

- Measuring the viscosity and flow of a BTF can ensure appropriateness for administration and also be consistent with clinical recommendations
- The **International Dysphagia Diet and Standardisation Initiative (IDDSI)** is a flow test which can evaluate both commercial and homemade blends

- IDDSI was founded in 2012 by a multi-professional expert panel
- The IDDSI framework provides a common terminology to describe food textures and drink thickness
- The systematic testing can be utilized internationally to ensure consistency among viscosities

The International Dysphagia Diet Standardisation Initiative (IDDSI) framework of terminology and definitions includes an **objective measurement for liquid thickness**.

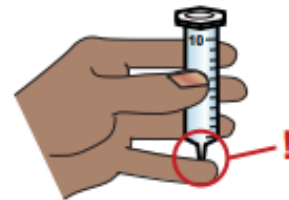
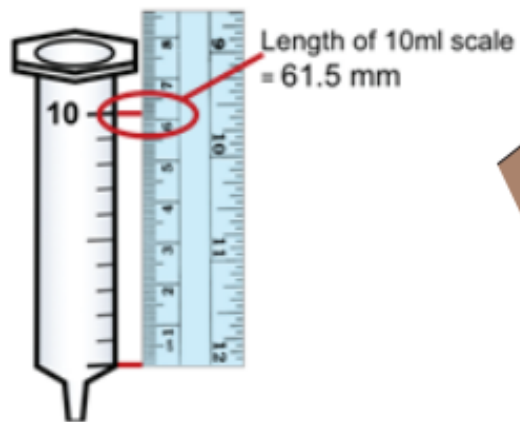


The IDDSI flow test classifies IDDSI Levels 0-3 based on their rate of flow.

Old terminology	IDDSI terminology
Half-strength nectar thick liquid	Slightly thick liquid
Nectar thick liquid	Mildly thick liquid
Honey thick liquid	Moderately thick liquid
pudding thick liquid/puree	Extremely thick liquid/puree

IDDSI Flow Test Protocol

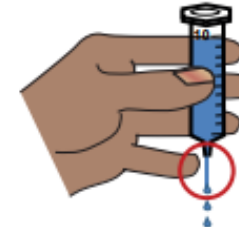
FLOW TEST INSTRUCTIONS



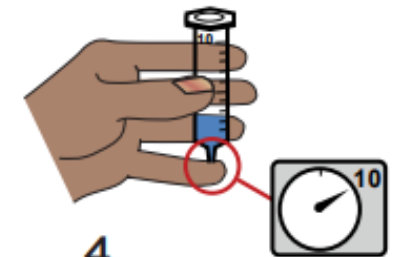
1.
Remove
Plunger



2.
Cover
nozzle
with finger
and fill 10ml



3.
Release
nozzle
& start
timer

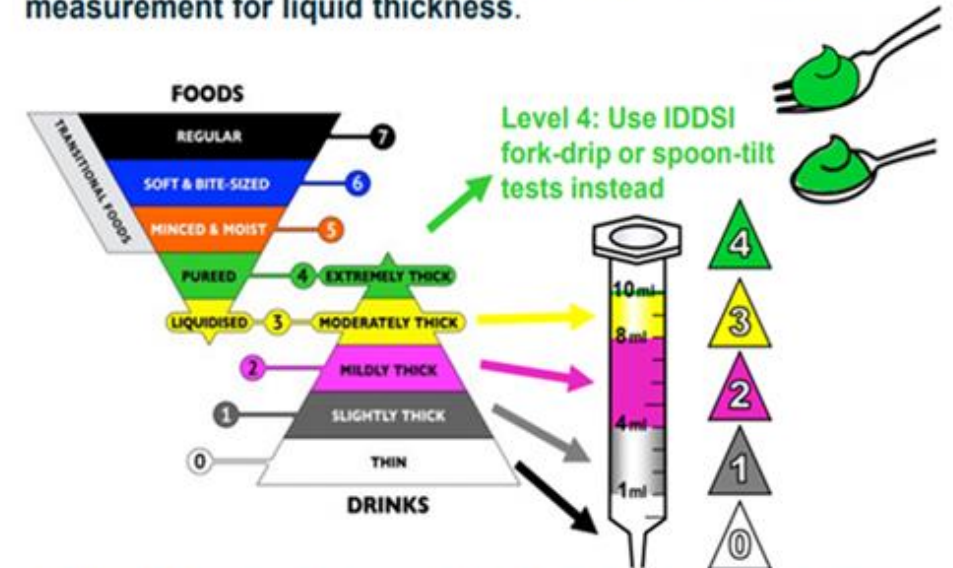


4.
Stop
at 10
seconds

IDDSI Testing Example

- Commercial BTF mixed with water
- Fill syringe with 10 ml
- Remove finger to allow flow for 10 seconds
- Replace finger to stop flow
- Measure liquid and compare to IDDSI chart

The International Dysphagia Diet Standardisation Initiative (IDDSI) framework of terminology and definitions includes an **objective measurement for liquid thickness**.



The IDDSI flow test classifies IDDSI Levels 0-3 based on their rate of flow.

References

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*Thank
You!*



**Sharon Weston,
MS, RD, CSP, LDN, FAND**

Sr. Clinical Nutrition Specialist

Quick Break!



See you back at the following time:

1:10 Eastern

12:10 Central

11:10 Mountain

10:10 Pacific

Tube Tech 101: Navigating Access Devices and Administration as you Master Blenderized Tube Feeding

February 8, 2024



Cynthia Reddick, RD, CNSC
Home Tube Feeding Expert,
Educator, and Strategist

Speakers bureau – Nutricia North America, Nestle Health Science, Cardinal Health
General consulting – Abbott Nutrition, Kate Farms, Avanos Medical, danumed

*None pose any conflict of interest for this
CE-eligible presentation*

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Participants in this activity will learn to:

Review the various types of access devices
used in long term tube feeding.

Explain considerations for the successful administration
of blenderized tube feeding at home.

Considerations in Feeding Tube Selection

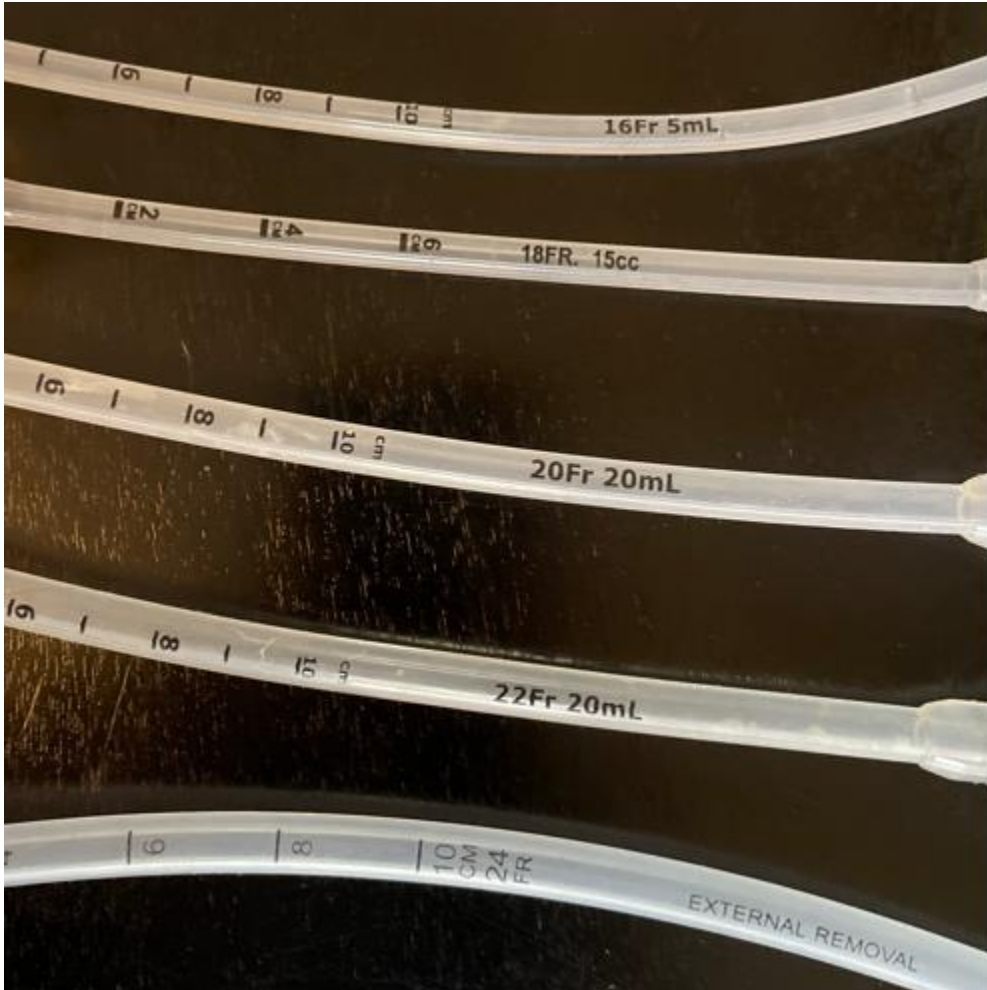
- Functional purpose of the tube
- Physical ability
- Mental capacity and age
- Socioeconomic factors
- Ethical considerations

LONG TERM ENTERAL ACCESS

an inside look

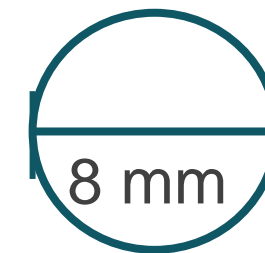
French Size

what does it mean?



French (Fr) Size:

- Larger Fr = larger outer diameter (OD)
- Fr = OD (in mm) x 3
- 1 Fr = .33 mm
- Inner diameter (ID) is variable and not 100% dependent on Fr size



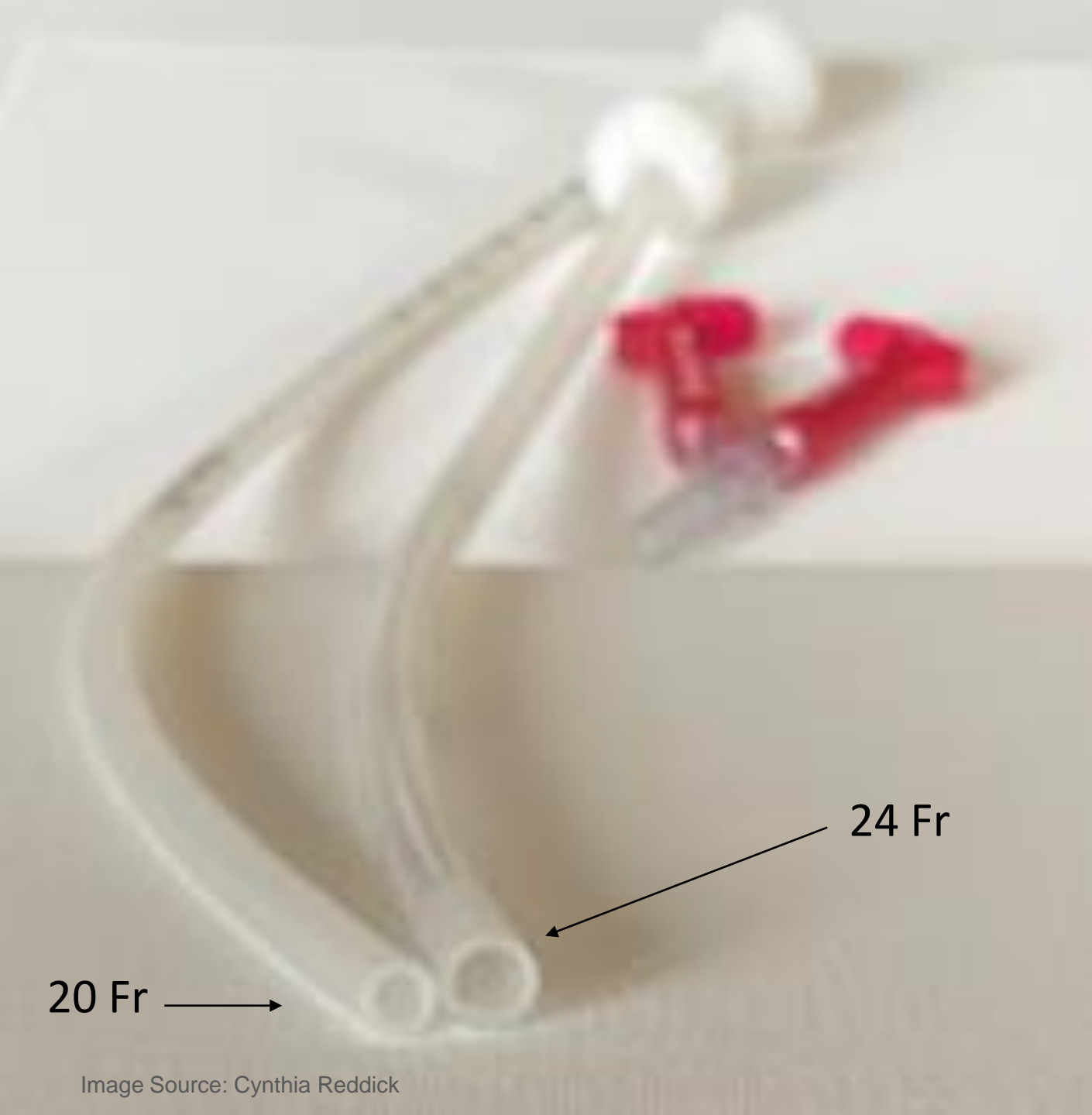
24 Fr

Standard Profile Gastrostomy Tube Non-Balloon



Image Source: Cynthia Reddick

Standard Profile Gastrostomy Tube Non-Balloon



Standard Profile Gastrostomy Tube Balloon



Image Source: Cynthia Reddick

Standard Profile Gastrostomy Tube Balloon



Image Source: Cynthia Reddick

Balloon vs Non-Balloon Gastrostomy Tube

24 Fr

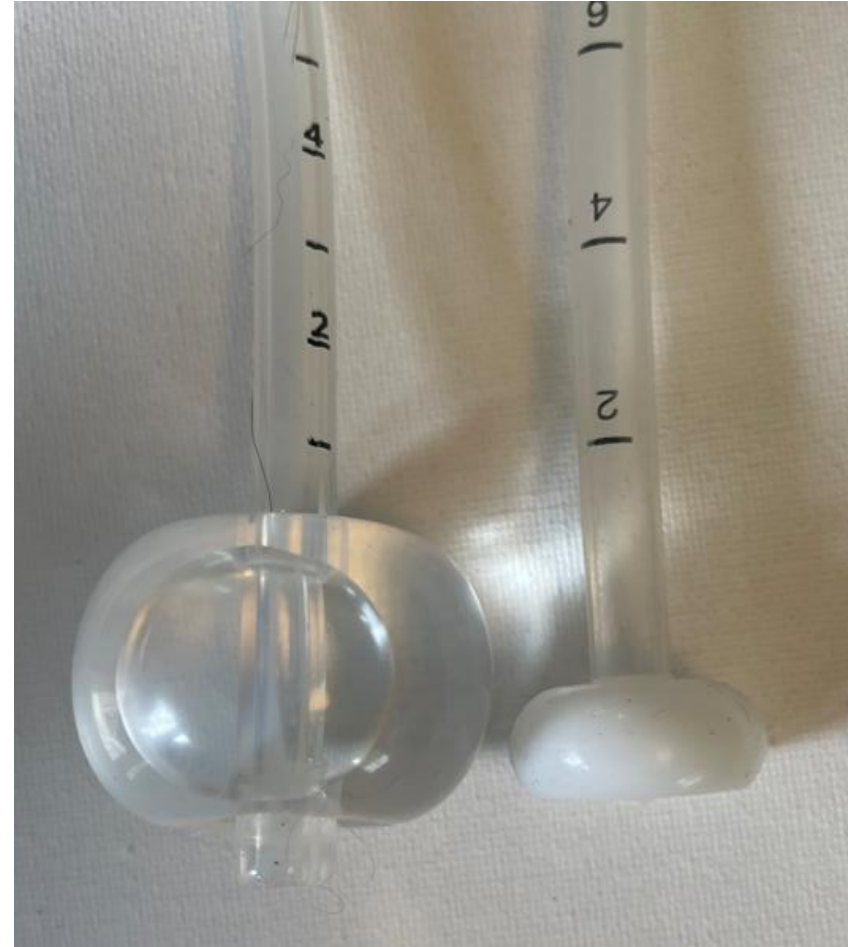


Image Source: Cynthia Reddick

Low Profile Gastrostomy Tube

Non-Balloon vs Balloon Style



Extension Set Options for low profile feeding tubes



straight/bolus

right angle



METHODS OF ADMINISTRATION

insights and practice recommendations

Options Available

syringe feeding



O-ring vs standard
stopper-style



Images courtesy of GEDSA

Options Available

gravity bag feeding

Small vs large bore gravity bag



Homecare Friendly Alternatives To Syringe and Gravity Feeding

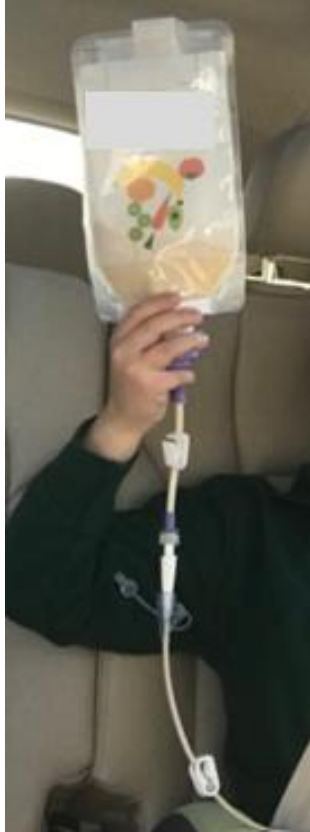


Image Source: U Deliver Medical

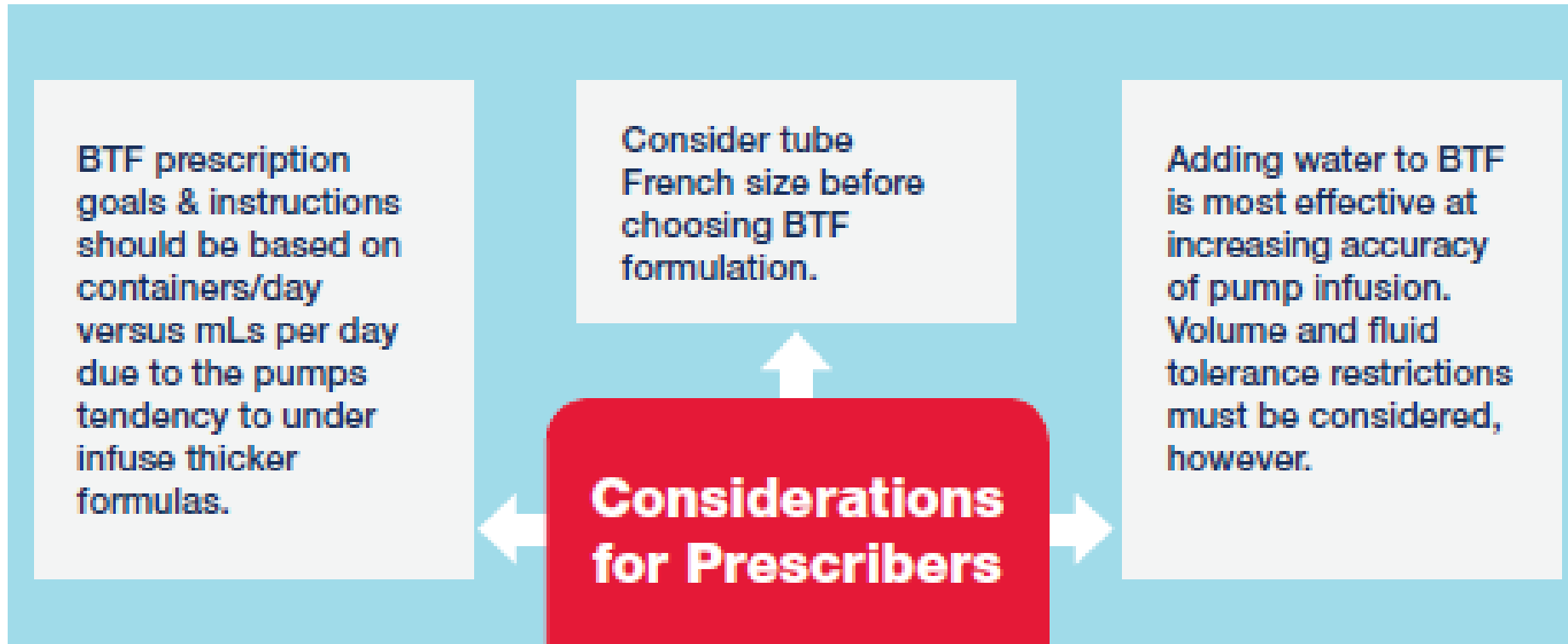


Image Source: Cynthia Reddick

- Indicated for gastric feeding
- Administered as a bolus
- Available via Durable Medical Equipment (DME)/Home infusion and online retail
- B4036 or S9341 – Enteral feeding kit gravity
- Portable
- Reusable
- ENFit connection

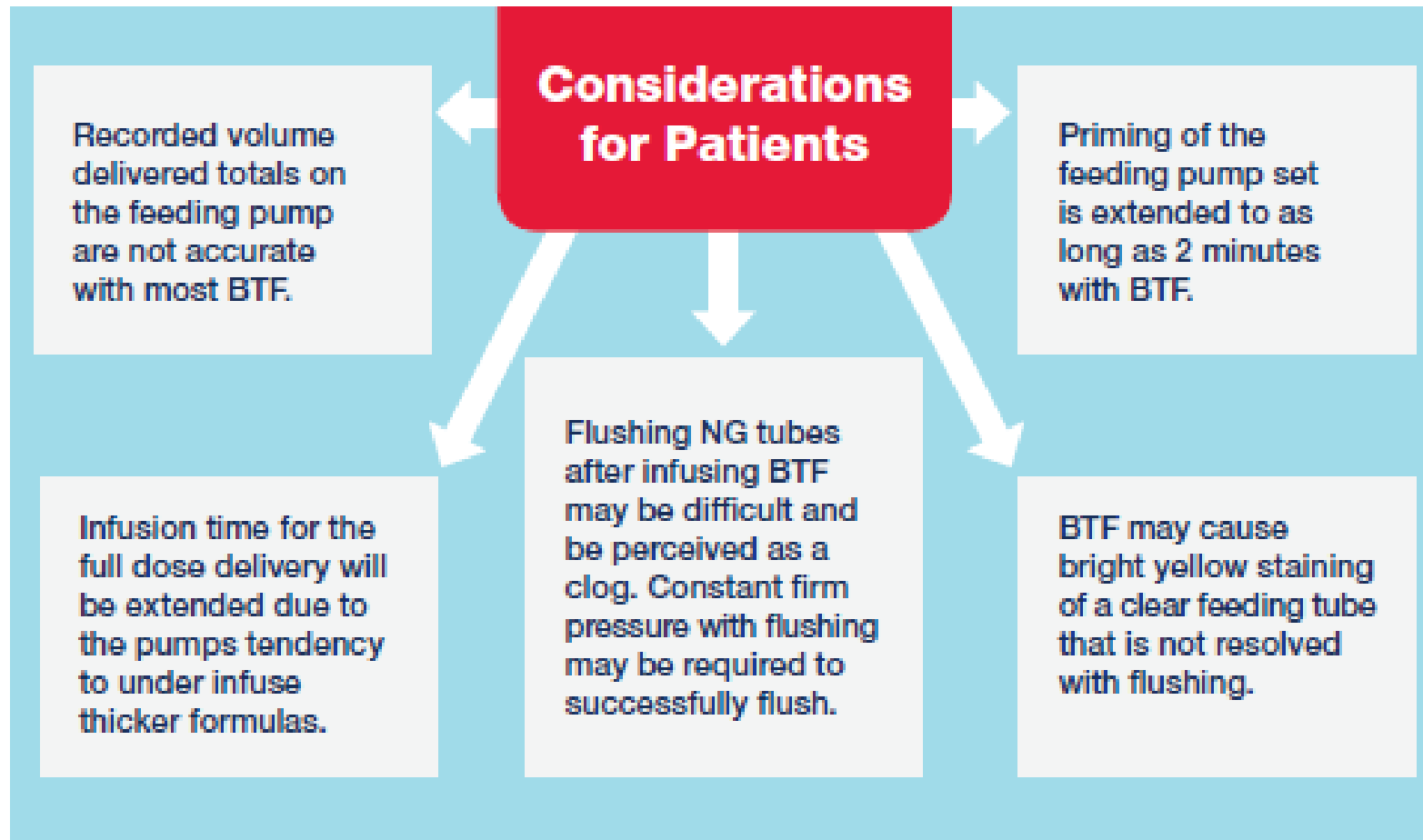
Best Practice Recommendations

for pump infusion of commercially prepared blends



Best Practice Recommendations

for pump infusion of commercially prepared blends





Reddick, C. Flaherty, J. *Considerations When Using Commercially Prepared Blenderized Tube Feeding Via an Enteral Feeding Pump in the Home Care Setting.* Poster Presented at ASPEN Nutrition Science and Practice Conference. January 2018. Las Vegas, NV.

DOI: 10.1002/nep.11007

CLINICAL RESEARCH





Thickness of commercial blenderized formulas adversely affects successful delivery via enteral feeding pumps

Judy-April Murayi MD, RD¹  | Elizabeth Evenson MS, RD² |
Debbie Verkin-Siebert RD² | Miranda Fisher RD² | Samantha Bartosiewicz BS³ |
Morgan Baade MDN, RD² | Kaylee Manville MSN, RN² |
Praveen S. Goday MBBS^{1,2} 

- Do not rely on mL/hr prescriptions to be accurate.
- Provide pouch per day volume instructions.
- Moderate or extremely thick products may need additional water to improve pump accuracy.
- Work closely with a feeding team to adjust feeding volumes, as needed.

CONSENSUS STATEMENT

Blenderized tube feedings: Practice recommendations from the American Society for Parenteral and Enteral Nutrition

Lisa Epp RDN¹ | Allison Blackmer PharmD²  | April Church MS, RD³  |
Ivy Ford RD⁴ | Brandee Grenda MS, RD⁵ | Cara Larimer RD⁶  |
Joanna Lewis-Ayalloore MS, RD⁷ | Ainsley Malone MS, RD²  |
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The ASPEN Enteral Nutrition Co

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INTENTION

- document authored by multidisciplinary team of clinicians
- compilation of expert practice recommendations
- provide healthcare providers help in everyday difficult clinical decisions to improve patient outcomes and patient safety

CONSENSUS STATEMENT

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- Evidence is lacking comparing tube clogging between BTF and commercial enteral formula (CEF).
- The general recommended blending time is 3–6 min
- For prepared BTF, the hang time should be limited to ≤ 2 hr
- For commercial BTF, refer to manufacturer recommendations for hang time limits
- Follow-up with an RD or nutrition support specialist (NSS) every 1–2 months.
- Extend to every 4–6 months based on patient stability after the initiation phase.



Incorporating
Blenderized
Tube Feeding

is not an all or nothing
proposition

Key Takeaways

for mastering blenderized tube feeding

Shared decision making

starts with asking important questions

Customize homecare supplies and enteral access

to optimize BTF administration



Knowledge about feeding tubes

is well within your scope of practice

Study the literature

and get to know the ASPEN practice recommendations

References

Epp L, Blackmer A, Church A, et al. Blenderized tube feedings: practice recommendations from the American Society for Parenteral and Enteral Nutrition. *Nutr Clin Pract.* 2023;1-30.

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Reddick, C. Flaherty, J. Considerations When Using Commercially Prepared Blenderized Tube Feeding Via an Enteral Feeding Pump in the Home Care Setting. Poster Presented at ASPEN Nutrition Science and Practice Conference. January 2018. Las Vegas, NV.

*Thank
You!*



Cynthia Reddick, RD, CNSC
Home Tube Feeding Expert,
Educator, and Strategist

Build Your Toolbox: Tips for Transitioning to Blenderized Tube Feeding

February 8, 2024



Hilarie Geurink, RD, CSP
Owner and founder of Blended Tube
Feeding™

- Nutricia North America, Consultant
- Functional Formularies, Consultant

*None pose any conflict of interest for this
CE-eligible presentation*

*The opinions reflected in this presentation are those of the
speakers and independent of Nutricia North America*

- Participants in this activity will learn to:
 - Discover simple steps to get started with blended diets at home, incorporating homemade and commercially available products.
 - Apply learnings from presentation to clinical practice with your tube-fed patients.

Step 1: Set up for a Successful Transition

Gather Equipment
Obtain Anthropometrics
Tolerance Tips

Step 1: Set up for Success - Equipment

Preparation & Blending

- Blender
- Measuring Cups/Spoons
- Rubber Spatula
- Food Scale
- Food Thermometer



Step 1: Set up for Success - Equipment

Storage Containers

- Mason Jars
- Deli Containers
- Breast Milk Bags
- Silicone Cube Freezer Trays



Step 1: Set up for Success - Equipment

Feeding

- Syringes
- Reusable Tube Feeding Pouches
- Large Bore Gravity Bags
- Feeding Pump

- Straight Bolus Extension Set
- ≥ 14 French G-Tube



Step 1: Set up for Success - Anthropometrics

Tracking Weight & Growth

Obtain initial measurements, then routine checks

Frequency based on clinical assessment –
age, previous concerns, medical condition, etc.



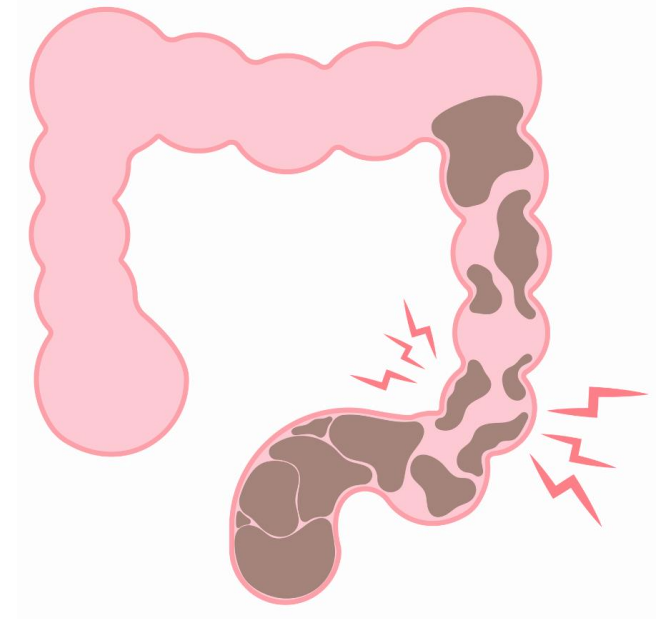
Step 1: Set up for Success – Tolerance Tips

Optimize Hydration Before Starting Transition

Common struggle: Constipation

No previous fiber intake

Inadequate fluid intake



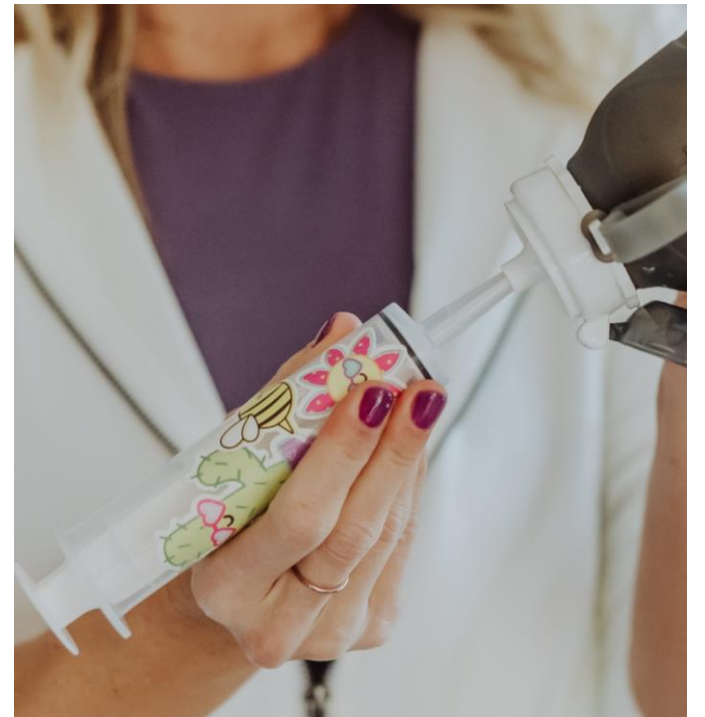
Step 1: Set up for Success – Tolerance Tips

Consider Water Flush Timing

Common struggle: Reflux and Vomiting

Water given before or between

Tip: Measure and fill a bottle with daily water goal in the morning



Step 1: Set up for Success – Tolerance Tips

Consider the Viscosity

Common struggle: Reflux and Vomiting

Thicker formulations may be preferred

Preparation and feeding considerations



Step 2: Blending & Safety Basics

Preparation and Blending
Food Safety & Storage Guidelines

Step 2: Blending & Safety Basics

Preparation

- ❑ Keep things clean
- ❑ Keep things separate
- ❑ Keep food at a safe temperature
- ❑ If it's not safe to eat by mouth, don't blend it!



Step 2: Blending & Safety Basics

Blending

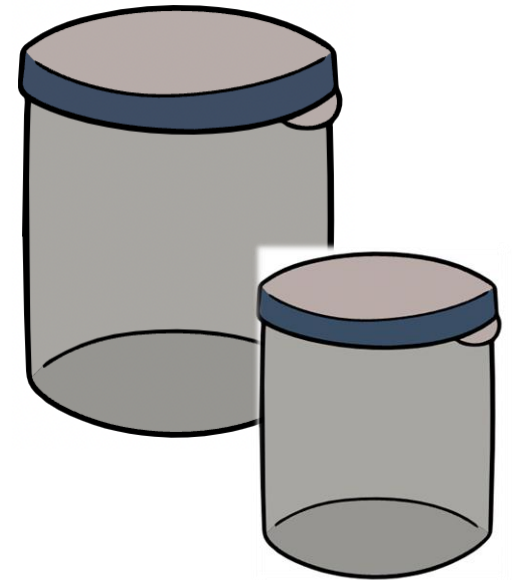
- ❑ Blender type: Professional vs standard
- ❑ Large vs small blender “jug”
- ❑ Blend for 3-6+ minutes to ensure food completely liquifies
- ❑ Caution with fine mesh strainer



Step 2: Blending & Safety Basics

Storage

- ❑ Keep prepared BTF in fridge or freezer
 - ▣ Freezer: Freeze within 24 hours, “safe” indefinitely, but loses quality
 - ▣ Fridge: 3-4 days
- ❑ Portion into meal size
- ❑ Wide mouth containers



Step 3: Transition & Optimize

Transitioning to Real Food
Feeding Tips
Nutrition Considerations

Step 3: Transitioning to Real Food

Take It Slow

Introducing New Foods

- ❑ Considerations: Previous exposure to food, history of allergies, medical condition
- ❑ Store bought puree vs home made for trial

Replace Meals/Volume Slowly



Step 3: Transitioning to Real Food

Option: Blend Family Meal

1. Make a balanced plate
2. Add to blender with liquid (start with small amount)
3. Considerations for higher calorie



Pros: Share family meals, ease of prep, nutrient variety

Cons: Difficulty with consistency, calorie/nutrient tracking

Step 3: Transitioning to Real Food

Option: Replace formula meal based on calories

- ❑ Formula feed = 400 Calories
- ❑ Create balanced meal from real food = 400 calories
- ❑ Choosing calorie dense foods will make meal size smaller!

Pros: Nutrient variety, helpful for taking it slow, less overwhelming

Cons: Inconsistent volume and consistency

Step 3: Transitioning to Real Food

Option: Recipe Templates

- ❑ Blending for full day of nutrition
- ❑ Volume of food for each food group to meet calorie goal

Pros: Flexibility, nutrient variety

Cons: Inconsistent volume and consistency may not be ideal for some

FOOD GROUP	GOAL
Grains	3 one-ounce equivalent
Vegetables	1 cup
Fruit	1 cup
Milk or milk substitute	2 cups
Meat, beans, nuts	2 one-ounce equivalent
Fats	3 teaspoons

Step 3: Transitioning to Real Food

Option: Recipes

- ❑ Recipes with calorie/volume listed
- ❑ Calorie concentration like formula
- ❑ Recipe books and online resources



Pros: Consistent calorie intake, less worry about volume

Cons: Not as simple as preparing the same meal for whole family

Step 3: Transitioning to Real Food

Option: Use Commercial Blenderized Products

- ❑ 100% real food with a variety of meal choices vs real food-based
- ❑ Great for busy days, travel, feeding on the go
- ❑ Insurance coverage

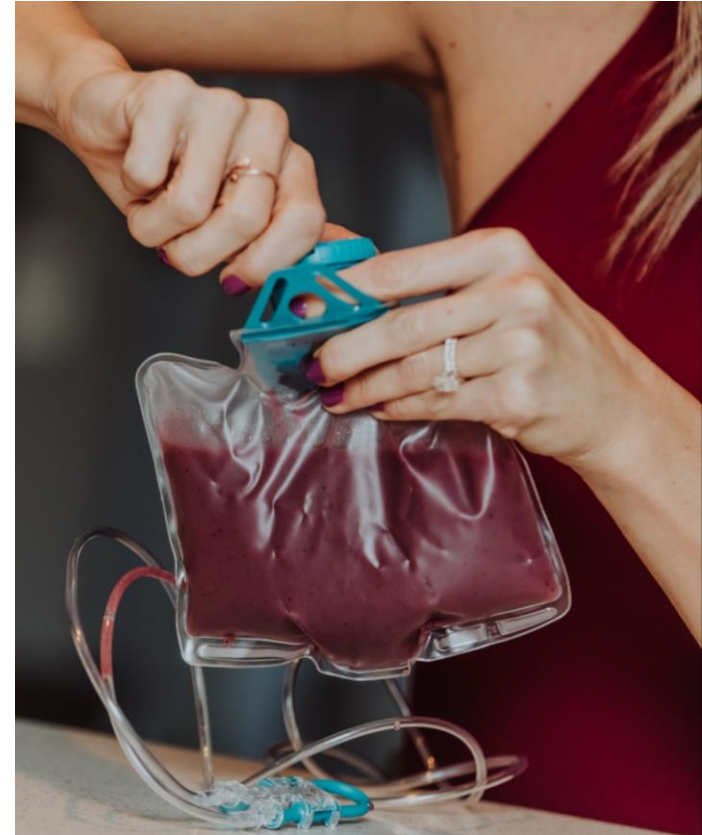
Pros: Convenient, ease of use, consistent calorie intake and volume

Cons: Expensive without coverage, less option versus home blending, tolerance (for some)

Step 3: Feeding Tips

Hang Time:

- Prepared BTF:
 - 2 hours or less
 - If temperature is above 90°F, no more than 1 hour
- Commercial BTF per manufacturer recommendations



Step 3: Feeding Tips

Feeding Tips

- ❑ Warming blended meals
- ❑ O-ring syringes
- ❑ Feeding pump accuracy



Step 3: Nutrition Considerations

Vitamins/Minerals: May or may not be indicated

Sodium: May or may not be indicated

Fluid: Use standard clinical methods



Remember...



**Practice blending
and using equipment!**

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*Thank
You!*



Hilarie Geurink, RD, CSP

Owner and founder of Blended Tube
Feeding™



**Let's hear from
Nicole, the mother
of a tube-fed child!**



Dive Deep Into a Real Story About Real Food for Tube Feeding

February 8, 2024



Nicole Bolufé

Mother of a
tube-fed child

- Nutricia North America, Consultant

*None pose any conflict of interest for this
CE-eligible presentation*

*The opinions reflected in this presentation are those of the
speakers and independent of Nutricia North America*

Learning Objectives

- Participants in this activity will learn to:
 - Understand the patient journey of transitioning to blenderized tube feeding.
 - Illustrate a family's experience with blenderized diets, with a story told directly by their caregiver.

Liam's Story 🥕



Liam's Story 🥕





THIS CONCLUDES THE MASTERCLASS



Thank you for attending



**This concludes the CE
portion of the webinar.**

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and complete survey
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of Attendance.**



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