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## Managing Today's Tube Fed Patient From Hospital to Home: Lessons Learned and Myths Busted


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### Speaker




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### Speaker Disclosure

- › Nestlé Health Science Speakers Bureau
- › Medtrition Clinical Advisory Board
- › Oley New Connectors Working Group
- › GEDSA Clinical Advisory Board




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### Objectives

- Identify several key considerations when discharging a patient to the home or post-acute setting
- Explain appropriate type of documentation required for tube feeding coverage for the patient at home
- Describe the considerations for use of commercially prepared formula by differentiating plant based vs. blenderized options at home
- Identify potential challenges and solutions during the transition from legacy to ENFit® feeding tubes in the hospital and home setting

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**“GET GOOD AT THINGS THAT OTHER PEOPLE ARE AFRAID OF.”**





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### Considerations for HEN (home enteral nutrition)

What drives decisions in designing a home care tube feeding regimen?

- Optimizing compliance
- Insurance coverage
- Quality of life
- Homecare formulary

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## Considerations for HEN

### How tube feeding regimens may change from hospital to home

- Method of administration
- Formula selection
- Supply options
- Feeding schedule
- Pump type
- Feeding System



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## Method of Administration Pump

### Acute Care

- › Controlled infusion rate
- › Reduce risk of metabolic abnormalities & intolerance
- › 24-hour nursing available

### Home Care

- › Pump feeds may interfere with lifestyle
- › More "medical"
- › "High tech"
- › Less free time between feedings



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## Method of Administration Gravity

### Acute Care

- › Infrequently used
- › Lacks automated infusion and recording of volume delivered
- › Requires more nursing contact hours

### Home Care

- › Transition method between pump to bolus
- › Hands free method of bolus feeding
- › More equipment than bolus but less expensive than pump



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## Method of Administration Bolus

### Acute Care

- › Lacks automated infusion and recording of volume delivered
- › Requires more nursing contact hours
- › High acuity patients may have tolerance issues

### Home Care

- › Rapid administration
- › Requires manual dexterity
- › Can mimic meal-time
- › Portability
- › Least expensive feeding method



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## Method of Administration bFed Delivery System (Bolee® Bag & Bolink® Caps)

### Potential Benefits of Use

- › Reusable
- › Portability
- › Gravity/Squeeze bolus method
- › Works with blended and standard formulas

### Potential Disadvantage of Use/Contraindications

- › Limited control of rate
- › Lack of familiarity by prescribers
- › Not indicated for jejunal feeding
- › Availability via home infusion/Durable Medical Equipment (DME) provider



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Bolee® and Bolink® are registered trademarks of U Deliver Medical.

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## Formula Selection

### Acute Care

- › Options limited by hospital formulary
- › Formula selection not influenced by insurance coverage
- › Plant based, organic, and blenderized options less available
- › Liquid/ready-to-feed formula used with infants

### Home Care

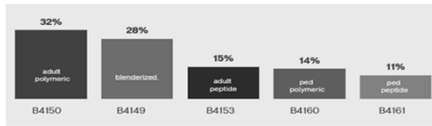
- › Alternatives and equivalents to hospital formula available
- › Options may be limited by homecare formulary
- › Insurance coverage often influences formula selection
- › 1.5 kcal/mL formulas are most used in adult population\*
- › Plant based, organic, and blenderized options more readily available
- › Home blenderized foods may be incorporated into regimen
- › Powdered/reconstituted formula used with infants

\* Based on Coram® & Apria® observational data with average 30,000 monthly patient census over 15 years.



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## Plant Based Consumer Census By Formula Type



- Sample size = 5000
- All formula types represented are plant-based.
- No meat/ No dairy ingredients

Giambertone, T., Hill, D., Reddick, C. Use of Plant Based Enteral Formula in the Homecare Setting: Demographic and Prescription Trends on a National Level. Presented at ASPEN 2022. March 27 – 28. Seattle, WA.



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## Plant Based Consumer Census By Age Group and Formula Type

	B4149 Blenderized	B4150 Adult polymeric	B4153 Adult peptide	B4160 Ped polymeric	B4161 Ped peptide
<18	39%	9%	4%	28%	20%
18-35	24%	42%	29%	1%	4%
35-50	16%	52%	30%	0%	2%
51-65	13%	65%	22%	0%	0%
>65	14%	61%	25%	0%	0%

Giambertone, T., Hill, D., Reddick, C. Use of Plant Based Enteral Formula in the Homecare Setting: Demographic and Prescription Trends on a National Level. Presented at ASPEN 2022. March 27 – 28. Seattle, WA.



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## Supply Options

### Acute Care

- › Brands dictated by hospital formulary
- › Adapters, extension sets, tube securement devices, dressing
- › Pump sets often feed and flush
- › ENFit® vs. legacy enteral connectors

### Home Care

- › Home care friendly options available
- › Brands may be dictated by home infusion/DME formulary
- › Feed and flush system likely not indicated or needed
- › Some supplies may not be offered by home infusion or DME
- › ENFit® vs. legacy enteral connectors

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## Feeding Schedule

### Acute Care

- › 24-hour nursing available for administration
- › Continuous around the clock pump feeding is a common standard of care
- › Bolus feeds are often in around the clock intervals

### Home Care

- › Patient or caregiver is administering feeds
- › Continuous around the clock pump feeding is not ideal
- › Bolus and gravity volumes can be easy to measure i.e., whole or half carton measurement



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## Pump Type

### Acute Care

- › Brands dictated by hospital formulary
- › Non-ambulatory
- › Feed and flush system common
- › NICU often uses syringe pump

### Home Care

- › Home care friendly options available
- › Ambulatory, light weight
- › Feed and flush system likely not indicated or needed
- › Syringe pumps not typically available in home care



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## Feeding System

### Acute Care

- › Closed system commonly used
- › Spike set
- › 1000 or 1500 mL prefilled bag/bottle RTH container
- › 8 hour hang time for open system/decanted formula
- › 4 hour hang time for reconstituted formula and breast milk

### Home Care

- › Cartons or pouches
- › 237 – 360 mL per each
- › Open system pump set
- › 12 hour hang time for open system/decanted formula
- › 4 hour hang time for reconstituted formula and breast milk

Boullata J et al. JPEN 2017;41(1):15-103.



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## Case Study

### Acute Care Prescription

- 1.0 kcal/mL diabetic formula @ 90 mL/hr x 22 hours with 60 mL water flush q 2 hours around the clock
- Medicare patient
- Gastric feeds
- Diabetic formula since ICU admission when blood sugar was in poor control



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## Case Study

### Preparing for discharge home

- What would stop the patient from tolerating gravity or bolus?
- What would stop the patient from tolerating a standard formula?
- What would stop the patient from tolerating a manual flush?
- If pump indicated due to tolerance, have you outlined a homecare plan to decrease duration of feeds?
- Consider transition to a 1.5 kcal/mL formulation.

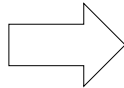


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## Case Study

### HOSPITAL Regimen

1.0 kcal/mL diabetic formula  
1980 kals  
Pump feeds at 90 mL/hr  
22-hour feeds  
Feed and flush system  
8 cartons per day



### HOME CARE Regimen

1.5 kcal/mL standard fiber containing formula  
1875 kcal  
Bolus feeds  
TID or QID feeds  
Manual flush  
5 cartons per day



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## Preparing for a Successful Discharge Patient/Caregiver Education

Homecare prescription

Administration (pump, syringe, gravity bag)

Water flushing

Formula preparation (if appropriate)

Infection control basics

Care of tube and tube site

Durfee SM, Adams SC, Arthur E, et al. A.S.P.E.N. Standards for Nutrition Support: Home and Alternate Site Care. *Nutr Clin Pract.* 2014;29(4):542-555.



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## Insurance Coverage for HEN

### Commercial Insurance

- Policies vary
- May have formula coverage exclusion

### Medicaid

- Traditional vs. Managed Medicaid
- May have formulary

### Medicare

- Part B coverage criteria
- Coverage criteria must be met
- When covered, Medicare pays 80%

Centers for Medicare & Medicaid Services; Local Coverage Determination (LCD). Enteral Nutrition (L38955). <https://www.cms.gov/medicare-coverage-database/viewlcd.aspx?lcdid=38955>. Accessed 5/21/2022



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## Medicare Coverage Criteria for Home Enteral Nutrition

Requires feedings via an enteral access device

Feeds provide sufficient nutrients to maintain weight and strength commensurate with overall health status

Has a permanent:

- full or partial non-function or disease of the structures that normally permit food to reach the small bowel; OR,
- disease that impairs digestion and/or absorption of an oral diet, directly or indirectly, by the small bowel.

Centers for Medicare & Medicaid Services; Local Coverage Determination (LCD). Enteral Nutrition (L38955). <https://www.cms.gov/medicare-coverage-database/viewlcd.aspx?lcdid=38955>. Accessed 5/21/2022



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## Forms of Documentation Accepted by CMS

History and Physical	RD Evaluation	Swallow Study
	Assessment and Progress Notes	Barium, Video, or Bedside SLP* Notes
Discharge Summary	Gastroenterology	Progress Notes
	Consult/Procedure/Progress Notes	Nursing, Clinic Encounter, Diagnostic Tests, Summary of Findings, Treatment Plans

\* Speech Language Pathologist



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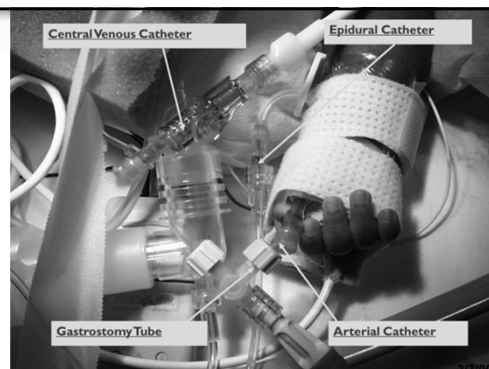
## Enteral Misconnection

**Definition:** An inadvertent connection between an enteral feeding system and a non-enteral system such as an intravascular catheter, peritoneal dialysis catheter, tracheostomy, medical gas tubing, etc.

Guenther et al. *Jt Comm J Qual Patient Saf.* 2008;34:285-292.



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Design standards for system-specific applications start with enteral

ENFit® 80369-3

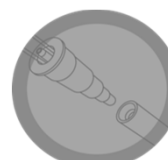


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## Enteral Connectors Feeding Sets



Legacy



Iso-Compliant Enteral Connector (ENFit® Trade Name)

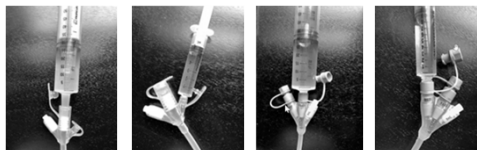
ISO 80369-3:2016, Small-bore connectors for liquids and gases in healthcare applications — Part 3: Connectors for enteral applications.  
<https://www.iso.org/obp/ui/#iso:std:iso:80369-3:ed-1:v1:en>

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## Enteral Connectors Syringes



Legacy

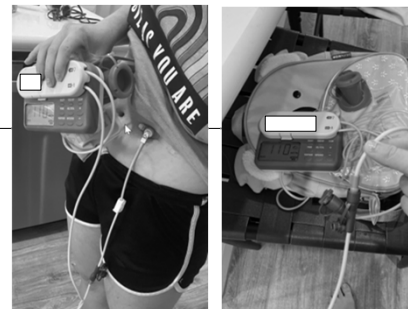
Iso-Compliant Enteral Connector  
(ENFit® Trade Name)

ENFit® is a registered trademark of GEDSA.



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## Enteral Connectors Pump Feeding

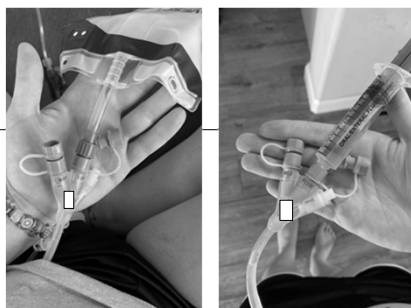


Low profile device for direct  
jejunal enteral feeding.

Pictures used with permission.

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## Enteral Connectors Drainage and Flushing



Dangler® style G tube used for drainage

\*Dangler is a term that may be used by patients or caregivers describing a feeding tube that extends out of the body and dangles or hangs down due to gravity.

Pictures used with permission.

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## Manufacturer Timeline Update 2022

Tube feeding supplies impacted by ENFit® transition:

- Administration sets (gravity/pump)
- Extension Sets (used with low-profile device)
- Feeding Tubes:
- Nasogastric/Nasointestinal/ Gastrostomy/Jejunostomy/ Gastrojejunostomy
- Syringes

Access up-to-date information at <https://stayconnected.org/enfit/>

<https://stayconnected.org/wp-content/uploads/2022/03/GEDSA-Unified-ENFit-Conversion-Message-Book-20220315.pdf>

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## Best Practices and Lessons Learned

Supply Alternatives	Collaboration	Satisfaction	Proactive Education
Supply chain interruptions	Manufacturers	More secure connection	Identify and communicate connection type prior to discharge
Duplication & Redundancy	Distributors	Eliminates need for extra tape and clamps	Homecare supply may look different than hospital supply
Crosswalks	Referral Partners	Reduced accidental disconnection during feeding and draining	'Homecare friendly' alternatives
	Clinicians	Eliminates connection confusion with brand specific and off label tube use	



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## Home Enteral Nutrition Conclusion



HEN regimen can and should look different than the hospital regimen



HEN coverage is often dependent on adequate documentation of medical necessity



Knowledge of ENFit® connections is imperative

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## References

Giambertone, T., Hill, D., Reddick, C. Use of Plant Based Enteral Formula in the Homecare Setting: Demographic and Prescription Trends on a National Level. Presented at ASPEN 2022. March 27 – 28. Seattle, WA.

Boullata J et al. ASPEN Safe Practices for Enteral Nutrition Therapy. *J Parenter Enteral Nutr.* 2017;41(1):15-103.

Durfee SM, Adams SC, Arthur E, et al. A.S.P.E.N. Standards for Nutrition Support: Home and Alternate Site Care. *Nutr Clin Pract.* 2014;29(4):542-555.

Centers for Medicare & Medicaid Services; Local Coverage Determination (LCD). Enteral Nutrition (L38955). <https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcid=38955>

Guenter et al. Enteral feeding misconnections: a consortium position statement. *IT Comm J Qual Patient Saf.* 2008;34:285-292.

ISO 80369-3:2016, Small-bore connectors for liquids and gases in healthcare applications — Part 3: Connectors for enteral applications. <https://www.iso.org/obp/ui/#iso:std:iso:80369-3:ed-1+en>

<https://stayconnected.org/wp-content/uploads/2022/03/GEOSA-Unified-ENFit-Conversion-Message-Book-20220315.pdf>

Zoeller S, et al. Dispelling Myths and unfounded Practices About Enteral Nutrition. *Nutr Clin Pract.* 2020;35(2):196-204.



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## Questions?

ACCESS ENTERAL NUTRITION RESOURCES at:

[NestleMedicalHub.com](https://www.nestlemedicalhub.com)

&

[myTubeFeeding.com](https://mytubefeeding.com)

Visit MyCE at  
[NestleMedicalHub.com/myce](https://www.nestlemedicalhub.com/myce)  
Offering CE to dietitians and registered nurses

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