



Making Connections

Practical transition techniques from Legacy to ENFit® enteral feeding tubes

W H I T E P A P E R

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A Brief Introduction to ENFit® Enteral Connectors

ENFit enteral connectors are **incompatible** with Legacy and Luer tip connectors **by design**.



Small bore tubing connectors are evolving to meet the safety standards of the International Organization of Standardization (ISO) which is intended to prevent misconnections between therapy systems that should not connect, such as IV and enteral tubing.¹ Enteral feeding devices that meet this standard are known by the trade name “ENFit” and are engineered to be incompatible with Legacy style feeding tubes, catheter tip syringes, and Luer tip connectors.²

As of early 2023, Europe, Australia, and New Zealand are nearly complete in their adoption of the safety standard and north America (Canada and the United States) is estimated to be over halfway converted per estimates from the Global Enteral Device Supplier Association known as GEDSA.³

The United States is in an active transition phase, therefore this tool was created to be a practical guide for clinicians, by device type, on how to transition their patient’s connector type to the ENFit® safety standard.

Practical Guidance for Clinicians

- 1 **Step 1:** Identify current Legacy feeding tube type.
- 2 **Step 2:** Determine options for feeding tube or connector change to ENFit.
- 3 **Step 3:** Identify who will replace feeding tube or connector portion of the tube.
- 4 **Step 4:** Establish where the replacement feeding tube or connector will be obtained.
- 5 **Step 5:** Consider best practices in the in-patient and home care setting for converting patients to an ENFit feeding tube.







Legacy NG / NE tube

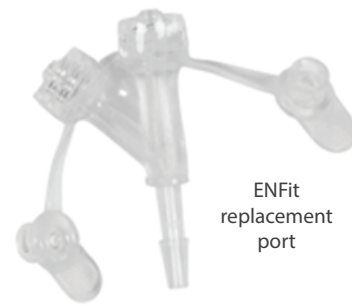


ENFit NG / NE tube

Nasogastric (NG) or Nasoenteric (NE) Tube



HOW TO: Replace legacy tube with ENFit version at next tube replacement.

Inpatient	Who replaces	How to order	Best practice
	<ul style="list-style-type: none"> Trained clinician at bedside, per hospital protocol. Gastroenterologist via endoscopy (GI). Radiologist via interventional radiology (IR). 	<ul style="list-style-type: none"> Coordinate with purchasing and/or central supply to stock appropriate ENFit tubes. 	<ul style="list-style-type: none"> Only stock ENFit version to prevent unintended legacy tube placement. Stock ENFit versions of NG tubes used for suction as well as feeding purposes.
Homecare	Who replaces	How to order	Best practice
	<p>NASOGASTRIC</p> <ul style="list-style-type: none"> If patient/caregiver has been trained to replace NG tubes at home, they can replace via same protocol with ENFit tube. If patient/caregiver does not replace NG tubes at home, would require clinic visit for replacement with ENFit tube. <p>NASOENTERIC</p> <ul style="list-style-type: none"> Requires outpatient replacement procedure. Gastroenterologist via endoscopy (GI). Radiologist via interventional radiology (IR). 	<p>NASOGASTRIC</p> <ul style="list-style-type: none"> Notify DME/Infusion provider to provide the ENFit version on next shipment. If the clinic is providing the replacement tube, confirm supply of ENFit version prior to appointment. <p>NASOENTERIC</p> <ul style="list-style-type: none"> The facility replacing the tube will order and provide the ENFit tube. 	<ul style="list-style-type: none"> Patient notifies DME/Infusion provider of need for ENFit syringes and tubes moving forward. Patient is provided several ENFit syringes to go home with from ENFit tube replacement procedure.





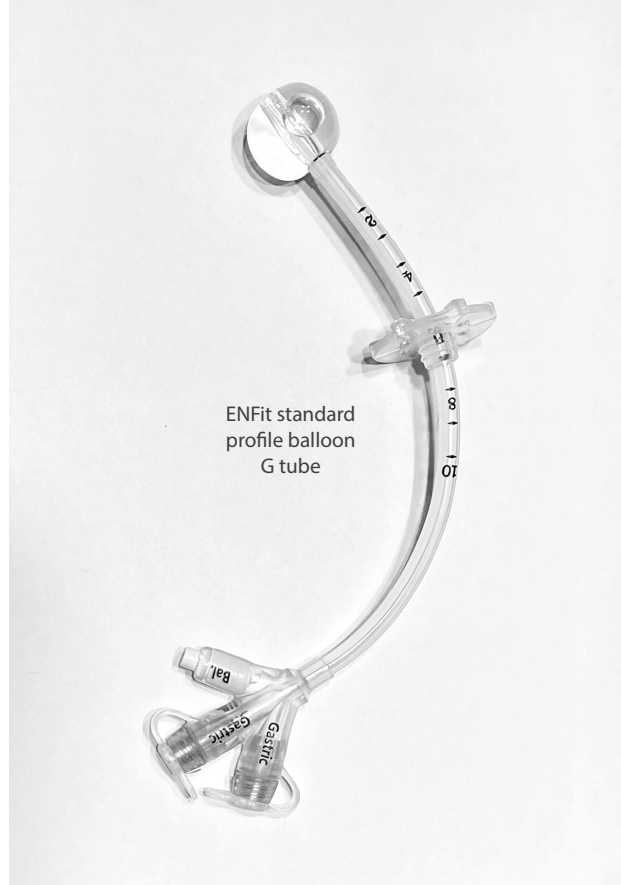
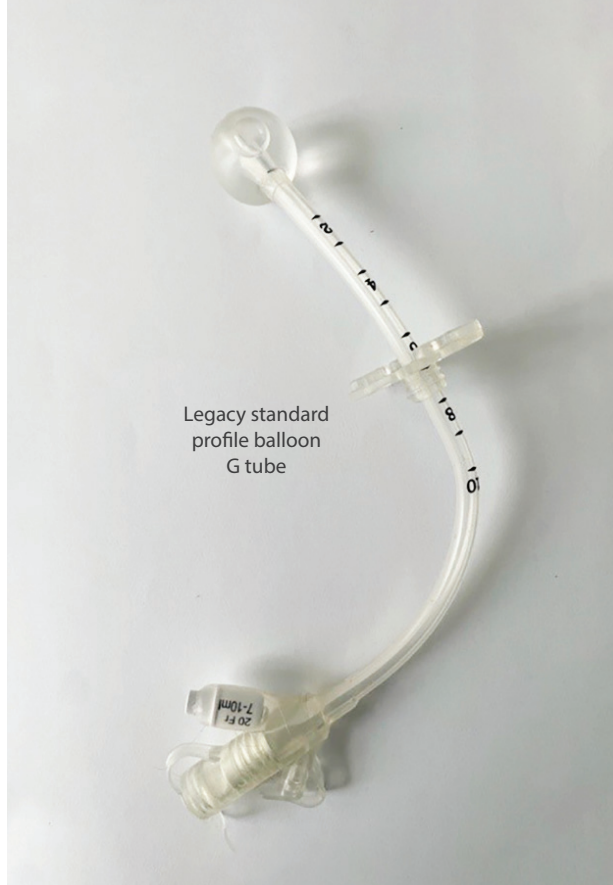
Standard Profile, Non-Balloon, G or J Tube (PEG or PEJ)

HOW TO: Option 1 - Remove detachable feeding port and replace with ENFit compatible port.

Inpatient	Who replaces	How to order	Best practice
	<ul style="list-style-type: none"> Trained clinician at bedside, per hospital protocol. 	<ul style="list-style-type: none"> Stock PEG ENFit replacement ports. Coordinate with central supply. 	<ul style="list-style-type: none"> Develop policy/procedure for bedside replacement of detachable port.
Homecare	Who replaces	How to order	Best practice
	<ul style="list-style-type: none"> Trained clinician at clinic. Trained patient or caregiver at home. 	<ul style="list-style-type: none"> Option 1: Clinic supplies PEG ENFit replacement port. Option 2: DME/Infusion provider orders PEG ENFit replacement at next refill. 	<ul style="list-style-type: none"> Patient is provided several ENFit syringes to go home with from port replacement procedure in clinic. Patient notifies DME/Infusion provider of need for ENFit syringes and supplies moving forward.



HOW TO: Option 2 - When patient is in need of tube replacement, choose an ENFit PEG or PEJ kit or consider replacement with ENFit balloon style feeding tube.

Inpatient	Who replaces	How to order	Best practice
	<ul style="list-style-type: none"> Gastroenterologist via endoscopy (GI), radiologist via interventional radiology (IR) or general surgeon. 	<ul style="list-style-type: none"> Coordinate with purchasing and/or central supply to stock appropriate ENFit tubes. 	<ul style="list-style-type: none"> Only stock ENFit version to prevent unintended legacy tube placement. Confirm endoscopy team has supply of ENFit tube placement kits.
Homecare	Who replaces	How to order	Best practice
	<ul style="list-style-type: none"> Requires outpatient replacement procedure. Gastroenterologist via endoscopy (GI), radiologist via interventional radiology (IR) or general surgeon. 	<ul style="list-style-type: none"> Facility replacing the tube will order and provide ENFit version of tube. DME/Infusion provider will not provide a tube that is being placed in a facility's surgical suite. Balloon style G tubes used as a replacement for a PEG and replaced in clinic may be ordered and dispensed by DME/Infusion company with prescription and insurance authorization. 	<ul style="list-style-type: none"> Patient notifies DME/Infusion provider of need for ENFit supplies moving forward. Patient is provided several ENFit syringes to go home with from tube replacement procedure.



Standard Profile Balloon G Tube



HOW TO: Replace legacy tube with ENFit version at any time in a patient with a mature stoma tract.

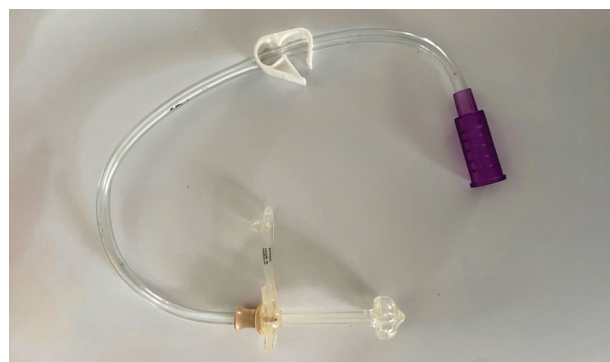
Inpatient	Who replaces	How to order	Best practice
	<ul style="list-style-type: none"> Trained clinician at bedside, per hospital protocol. Gastroenterologist via endoscopy (GI), radiologist via interventional radiology (IR) or general surgeon. 	<ul style="list-style-type: none"> Coordinate with purchasing and/or central supply to stock appropriate ENFit tubes. 	<ul style="list-style-type: none"> Only stock ENFit version to prevent unintended legacy placement. Confirm GI, IR and general surgery team has supply of ENFit placement kits.
Homecare	Who replaces	How to order	Best practice
	<ul style="list-style-type: none"> If patient/caregiver has been trained and is currently replacing tubes at home, use ENFit version for next tube replacement. If patient/caregiver does not replace tubes at home, ENFit tube placement will require clinic or hospital visit. Trained clinician in outpatient clinic visit, gastroenterologist via endoscopy (GI), or radiologist via interventional radiology (IR). 	<ul style="list-style-type: none"> Notify DME/Infusion provider to provide ENFit version on next shipment. Clinic or DME/Infusion provider may provide the ENFit tube. If the facility is providing tube, confirm supply of ENFit tube prior to appointment. If DME/Infusion provider is providing the tube, notify them to provide the ENFit version on next shipment. 	<ul style="list-style-type: none"> Patient notifies DME/Infusion provider of need for ENFit syringes and supplies moving forward. Patient is provided several ENFit syringes to go home with from tube replacement procedure. Patient notifies DME/Infusion provider of need for ENFit syringes and supplies moving forward.



Standard Profile GJ tube; Gastrically Placed J tube; or Direct J tube



HOW TO: Replace legacy tube with ENFit version at next scheduled tube replacement procedure.

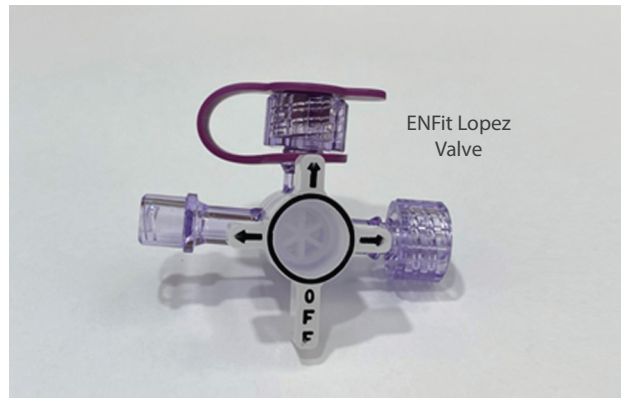
Inpatient	Who replaces	How to order	Best practice
	<ul style="list-style-type: none"> Gastroenterologist via endoscopy (GI), radiologist via interventional radiology (IR) or general surgeon. 	<ul style="list-style-type: none"> Coordinate with purchasing and/or central supply to stock appropriate ENFit tubes. 	<ul style="list-style-type: none"> Only stock ENFit version to prevent unintended legacy tube placement. Confirm GI, IR and general surgery team has supply of ENFit tube placement kits.
Homecare	Who replaces	How to order	Best practice
	<ul style="list-style-type: none"> Will require outpatient pre-procedure clinic visit. Gastroenterologist via endoscopy (GI), radiologist via interventional radiology (IR) or general surgeon. 	<ul style="list-style-type: none"> Facility replacing the tube will order and provide the ENFit tube. DME/Home infusion company will not provide a tube that is placed in a facility's surgical suite. 	<ul style="list-style-type: none"> Patient is provided several ENFit syringes to go home with from tube replacement procedure. Patient notifies DME/Infusion provider of need for ENFit syringes and supplies moving forward.



Low profile balloon or non-balloon feeding tube with legacy extension set



HOW TO: Conversion to ENFit does not require replacement of the tube itself, simply switch out the Legacy extension set with an ENFit version.

Inpatient	Who replaces	How to order	Best practice
	<ul style="list-style-type: none"> Extension sets can be replaced by a trained clinician, patient, and/or caregiver at bedside. 	<ul style="list-style-type: none"> Coordinate with purchasing and/or central supply to stock appropriate ENFit extension sets for patient floors and tube replacement kits for all departments that place tubes. 	<ul style="list-style-type: none"> Patient is provided several ENFit syringes to go home with at discharge. Patient notifies DME/Infusion provider of need for ENFit syringes and supplies moving forward.
Homecare	Who replaces	How to order	Best practice
	<ul style="list-style-type: none"> Extension sets can be replaced by a trained clinician, patient, and/or caregiver at bedside. 	<ul style="list-style-type: none"> Notify DME/Infusion provider of transition to ENFit extension sets at next refill. For low profile G tube replacements at home, request ENFit replacement kit at next refill. For hospital placed tubes (GJ and gastrically placed J tubes) the department placing the tube will order and provide the ENFit tube kit. 	<ul style="list-style-type: none"> Utilize current legacy extension set supply until receipt of ENFit extension sets on monthly refill. Patient notifies DME/Infusion provider of need for ENFit syringes and supplies moving forward.



Enteral Valve Adapters

HOW TO: If using adapters, first transition the patient's tube from legacy to ENFit.

Inpatient	Who replaces	How to order	Best practice
	<ul style="list-style-type: none"> Once patient has ENFit feeding tube, adapters can be placed by a trained clinician at bedside per facility protocol. 	<ul style="list-style-type: none"> Coordinate with purchasing and/or central supply to stock appropriate ENFit adapters. 	<ul style="list-style-type: none"> Only stock ENFit version of adapters once facility is placing only ENFit feeding tubes.
Homecare	Who replaces	How to order	Best practice
	<ul style="list-style-type: none"> If patient is already using legacy adapter with legacy tube and wishes to continue to use adapter, once patient has ENFit tube, adapters can be replaced by a trained clinician, patient, and/or caregiver at bedside. 	<ul style="list-style-type: none"> Notify DME/Infusion provider of transition to ENFit tube and request ENFit adapters at next refill. 	<ul style="list-style-type: none"> Evaluate if valve adapter is needed in the home setting. It is likely not needed for home tube feeding. Patient notifies DME/Infusion provider of need for ENFit syringes and supplies moving forward.



ENFit Conversion Requires Collaboration and Practical Resources

The ENFit safety standard was developed to address the risks associated with the misconnection of enteral feeding devices, which can lead to serious harm or even death. This design reduces the risk of accidental misconnections and aims to improve patient safety and reduce the incidence of adverse events related to enteral feeding.²

Conversion to this global safety standard requires collaboration between clinicians and colleagues and a team approach that includes practical resources to guide clinicians in a successful conversion to ENFit.

Additional ENFit Resources

- ▶ GEDSA ENFit information
<https://stayconnected.org/enfit/>
- ▶ Oley new enteral connector resource
<https://oley.org/page/NewENConnectors>
- ▶ ASPEN Enteral Nutrition Connectors and Misconnections
https://www.nutritioncare.org/guidelines_and_clinical_resources/toolkits/enteral_nutrition_toolkit/enteral_nutrition_connectors_and_misconnections/
- ▶ Moog ENFit Connector information
<https://www.moogmedical.com/enteral/enfit/>
- ▶ ENFit Retail Pharmacy Readiness Infographic
<https://www.moogmedical.com/wp-content/uploads/2022/06/ENFit-Handout-Infographic-Retail-Pharmacy.pdf>
- ▶ ENFit cleaning procedure:
<https://stayconnected.org/enfit-cleaning-procedures-all-tubes/>
- ▶ ENFit Pharmacy Resource Guide
<https://stayconnected.org/pharmaguide/>

References

1. ISO 80369-1:2018 Small-bore connectors for liquids and gases in healthcare applications — Part 1: General requirements. <https://www.iso.org/standard/64419.html> Accessed 3.22.2023
2. Guenter, P. and Lyman, B. (2016), ENFit Enteral Nutrition Connectors. *Nutrition in Clinical Practice*, 31: 769-772.
3. ENFit Global Adoption Status. <https://stayconnected.org/global-conversion/> Accessed 3.22.2023



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