

A graphic consisting of a dark blue line that starts on the left, goes up, then curves to the right, and finally goes down. Three blue circles of increasing size are placed along the upward-sloping curve of the line.

Nurse Link

BY CAREPATHRX

Home Enteral Therapy

2023

LEARNING GOALS

By the end of this module, learners will be able to:

- Apply knowledge of home enteral therapy to practice.
- Evaluate appropriate resources for home enteral patients to promote effective learning to safely administer home feedings.
- Apply policies and procedures to patient instruction.
- Apply best practice in all modes of administration when teaching and caring for home infusion patients.
- Identify opportunities to prevent feeding errors and patient adverse events.

Access to Nurse Link



To login, follow the link below and click “*Login to Nurse Link.*”

<https://carepathrxllc.com/nurselink-welcome/>

Password: email nursingsupport@homeinfusion.com

Be sure to bookmark this URL and save your password for future use.

NL Patient Site:

<https://carepathrxllc.com/nurselink-patient/>

Patient
teaching
Videos

Patient
Written
Instructions

Nursing
P & P

Links to RN
virtual
training

Nurse
Videos

Home
Infusion
Society links

CarepathRX
in the News

Patient Teaching Guides

- Teaching Guides are included in the first delivery at SOC
- Step-by-step instructions on how to administer medications
 - Supplies
 - Set up
 - Administration
 - Clean up

PATIENT EDUCATION Enteral Feeding via Enteralite® Infinity® Pump

7-01-044

Properly administering your medication at home is important to your safety. In the event of an emergency, call 911.

NOTE: We recommend cleaning your pump on a routine basis, weekly. Failure to do so may increase chances of pump alarming improperly. The following instructions are the manufacturers guidelines for how to do so: **Pump may be cleaned with warm, soapy water (standard dish soap) and a nonabrasive sponge or soft cloth. Use a cotton swab to clean pathways of cassette receptacle and to remove teal silicon residue from pump wheel roller pins. Rinse pump by holding under a stream of warm water. Then, dry with a clean cloth.**

SUPPLIES:

- ENTERALITE Infinity Pump
- Enteralite® Infinity® pump bag (Feed Set) (**CHANGE FEEDING BAG EVERY 24 HOURS**)
- 60 cc. Syringe for flushing
- Formula
- Backpack (if applicable) or IV pole

PROCEDURE:

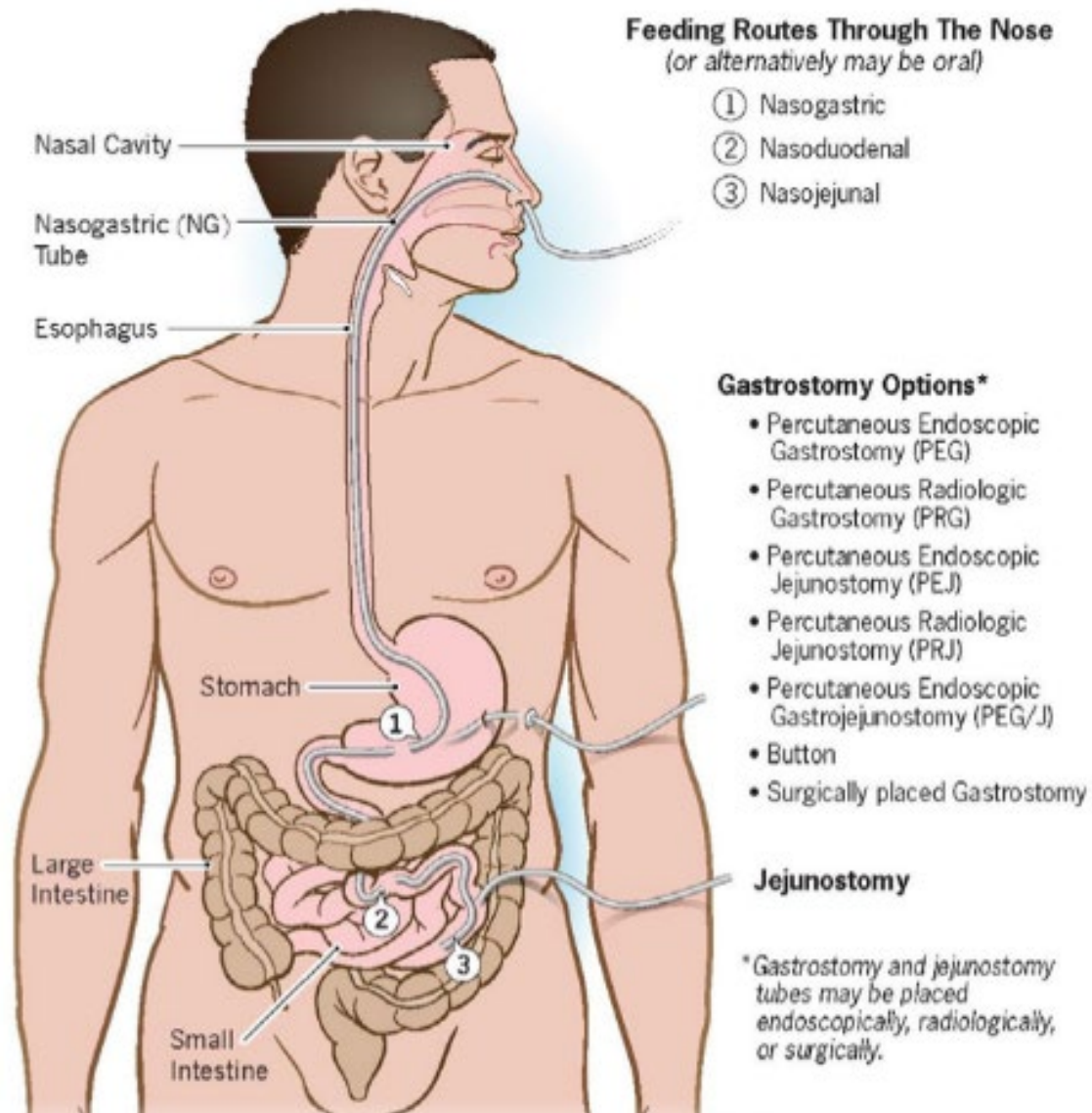
1. Clean work area. Wash hands thoroughly for at least 20 seconds. Gather supplies.
2. Hold bag upright and pour in formula. Close cap securely. **NOTE: ONLY 8 HOURS OF FORMULA SHOULD BE POURED INTO BAG AT A TIME, FOR ADULTS. ONLY 4 HOURS OF FORMULA FOR PEDIATRIC.**
3. Open pump door, loop tubing around wheel and set cassette into pump. Close pump door.
4. Press and hold **ON/OFF** key for 1.5 seconds to turn pump on. After running the self test, the display will now show the last programmed rate.
5. To adjust rate, press **(+)** or **(-)** key until required rate is displayed, per your plan of treatment.
6. Remove protective cover from purple barbed adapter.
7. To prime, press and hold the **PRIME** key until fluid has filled the tubing.

ENTERAL NUTRITION

Enteral nutrition refers to a method of feeding that uses the gastrointestinal (GI) tract to deliver nutrition and calories using a feeding tube. There are many reasons for enteral nutrition including GI disorders such as bowel obstruction, short bowel syndrome, Crohn's disease and ulcerative colitis; as well as certain cancers or with dysphagia in stroke patients.

During the short term, a patient might be fed with a tube entering the nose into the stomach (nasogastric tube). For longer use, a tube entering the stomach from outside the abdomen (a gastrostomy tube) might be appropriate.

Examples of Enteral Access



COMPLICATIONS

Nutrition delivered by enteral tubes can cause the following complications:

- food entering the lungs (aspiration)
- constipation
- diarrhea
- improper absorption of nutrient
- nausea, vomiting, dehydration
- electrolyte abnormalities
- high blood sugar
- vitamin and mineral deficiencies,
- decreased liver proteins

COMPLICATIONS

Feeding tubes inserted through the nose can cause:

- Irritation of the nose or throat
- Nosebleeds
- Acute sinus infections
- Ulceration of the larynx or esophagus
- Blockages
- Displacement

Feeding tubes inserted through the skin of the abdominal wall can cause:

- Skin issues around the site of the tube
- Wound infections
- Unintentional tears in the intestines
- Perforation
- Infections of the abdomen (peritonitis)
- Blockages
- Displacement

Therapy Education

- Remind patients that pumps must be returned to the pharmacy when therapy is completed
 - Pumps are not disposable!
- Administration of feeding and flushing.
- Patient or caregiver must talk to the Enteral staff to re-order supplies and formula. The pharmacy needs to know:
 - 1-877-ENTERAL
 - List of supplies and formula needed
 - Complete inventory of formula and supplies
 - Response to therapy
 - Changes in feeding orders
 - Physician order required to increase formula volumes



CarepathRx On Call

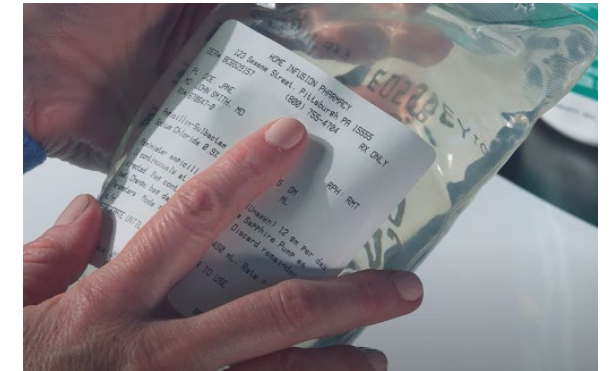
24 / 7 Access to the Clinical Pharmacy team

For after-hours, weekend and holiday support, troubleshooting, and delivery needs:

- CarepathRx Pharmacist
- Local pharmacy support varies by pharmacy.
- Dietitians
1-877-ENTERAL
- Nurses
- Delivery



Contact the pharmacy by calling the phone number at the top of the medication label.



Enteral Remote Patient Monitoring

Before each delivery the pharmacist, or pharmacy representative, will assess patient standard assessment questions:

1. Is the enteral feeding being administered safely and with appropriate technique?
2. Is the patient experiencing side effects?
3. Obtain an accurate inventory of formula and supplies in the home (and what is needed).

Formula Storage

Unopened

- Room temperature
- Dry area
- No direct sunlight
- Until expiration date

Opened Liquid formula

- Can be stored in the refrigerator according to manufacturer recommendations
- 24-48 hours
- This includes reconstituted powdered formula.

Opened Cans of powdered formula

- Room temperature
- Dry area
- No direct sunlight
- Lid on securely
- Until 1 month after opening

Tubing

- Bags are to be changed **daily**
- Formula hang time at room temperature:
 - 8 hours for adults
 - 4 hours for pediatric patients
 - 4 hours for neutropenic patients



Kangaroo Joey
Feed set



Kangaroo Joey
Feed and Flush set



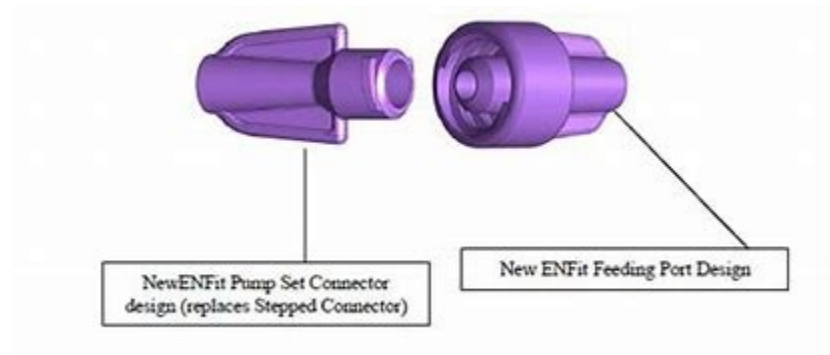
Infinity Disposable
Set
500 ml
or 1200 ml

ENFit Tubes

Many health systems are transitioning to ENFit feeding tubes and devices.



Traditional Tubes & ENFit Tubes



Specific syringes and tubing sets connect to traditional and ENFit tubes.

Many health systems are transitioning to ENFit feeding tubes.

Supplies

Piston Syringes

- Rinsed with water after each use
- Changed weekly



Free Water Bolus



In order to meet hydration requirements, **Free water boluses** may be ordered by the provider. The order needs to specify:

- Volume to be given
- Frequency of bolus

Free water boluses are to be administered **during normal awake hours only.**

- If a patient requires around-the-clock free water bolus scheduling, they should be utilizing the Kangaroo Joey pump **FEED and FLUSH mode.**

PROCEDURE:

1. Clean work area. Wash Hands thoroughly for at least 20 seconds. Gather supplies.
2. Remove gravity feeding bag with tubing from package.
3. Close the roller clamp on the tubing.
4. Fill the bag with the proper amount of formula and close bag securely at the top. **No more than 8 hours of feeding should be filled at a time. Refill bag as needed after 8 hours. This will help reduce possible bacteria growth.**
5. Hang the bag on the IV pole.
6. Fill the drip chamber as instructed by your nurse.
NOTE: Fill the drip chamber slowly, allowing formula to reach level of score mark; not above.
7. Prime the tubing with formula by slowly opening the roller clamp until fully primed. Close the roller clamp.
8. Flush your feeding tube as instructed by your nurse.
9. Connect the tubing to your feeding tube by inserting tip of the tubing into the end of your feeding tube attachment. You may secure this connection with a piece of tape if necessary.
10. Slowly open roller clamp and adjust to set feeding at prescribed rate.
11. When the formula has infused and feeding is complete, close the roller clamp on the tubing. Disconnect the tubing from your feeding tube.
12. Flush your feeding tube as instructed by your nurse.
13. Rinse the feeding bag set with warm water between feedings. Allow to air dry.
14. **DISCARD THE USED FEEDING BAG SET AND USE A NEW SET EVERY 24 HOURS.**

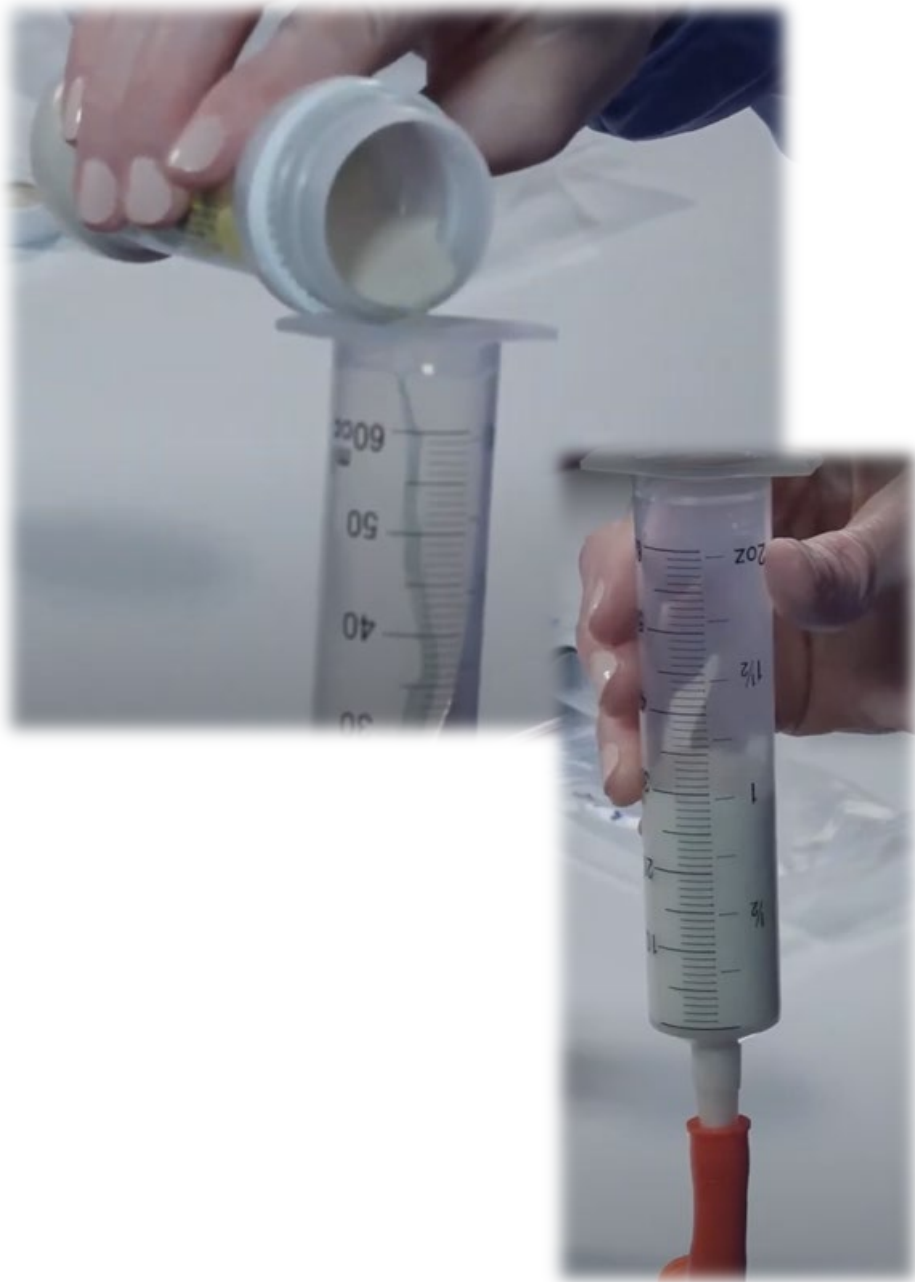
Gravity Feed



Bolus Feed

PROCEDURE:

1. Gather supplies. Clean work area. Wash Hands thoroughly for at least 20 seconds.
2. Flush your feeding tube as instructed by your nurse.
3. Remove the plunger from the 60cc syringe.
4. Insert the tip of the syringe into the end of your feeding tube or feeding tube attachment device.
5. Administer feeding. Slowly pour the prescribed amount of formula into the syringe. Avoid spills by pouring no more than 60 cc formula into the syringe at a time. Keep filling the syringe with formula as it empties, until the total volume prescribed is given.





Infinity[∞] Enteral Feeding Pump

EnteraLite Infinity Pump

The **EnteraLite Infinity Pump** is designed to deliver programmed doses of enteral nutrition solutions at selectable rates.



FEED ONLY PUMP

[Link to Operator's Manual:](#)
[MOOG ENTERALITE INFINITY OPERATOR'S MANUAL](#)
[Pdf Download | ManualsLib](#)



NOTE: PRIME, CLEAR, + AND – keys only function when the pump is in PAUSE mode

Keypad



Press key for 1.5 seconds to turn pump on or off



Press key to prime tubing



Press key to start pump or place in pause mode



Press key to display feed interval setting



Press key once to display volume delivered for current feeding. Press again to display cumulative volume



Press key to transition between rate and dose settings



Press and hold for 3 seconds to clear rate, dose, feed interval and volume delivered

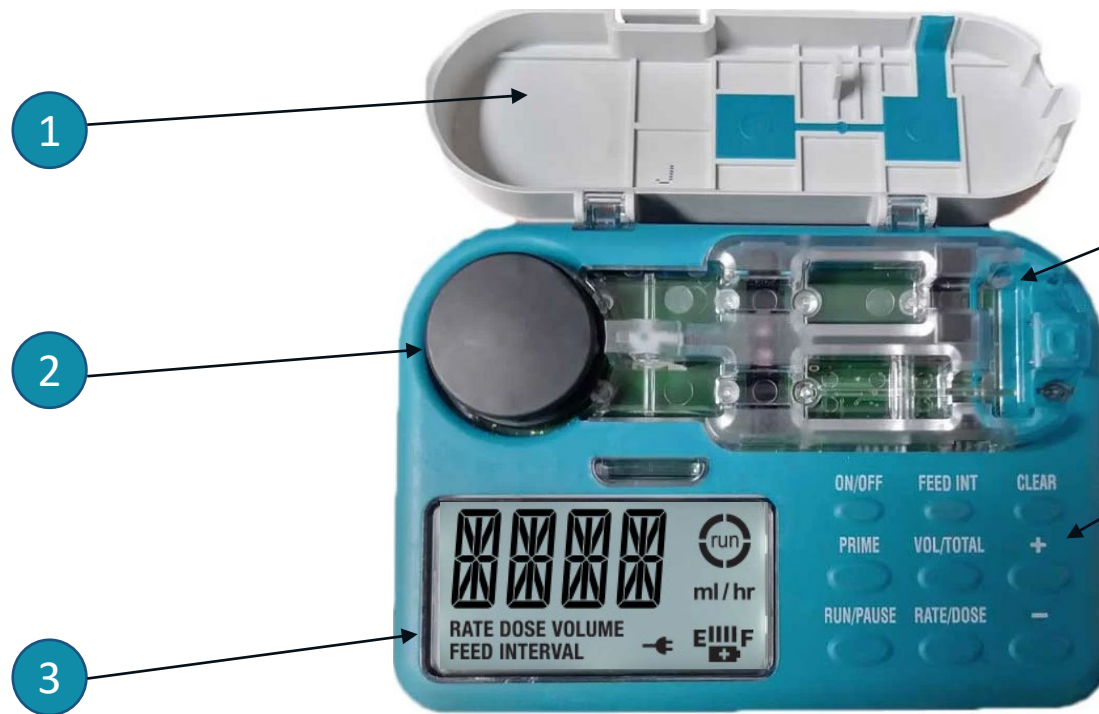


Press to increase displayed feed function. Press and Hold key to increase value rapidly



Press to decrease displayed feed function. Press and Hold to decrease value rapidly

EnteraLite Infinity Pump Components



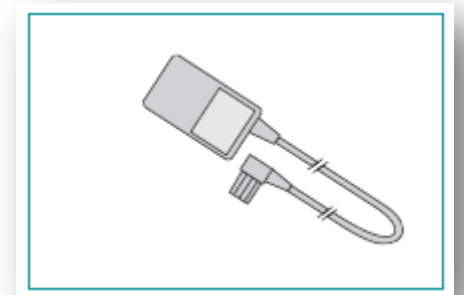
1. Door
2. Pump Wheel
3. Display
4. Receptacle for Cassette
5. Keypad

BATTERY AND POWER SUPPLY

BATTERY TYPE: Lithium Ion

POWER SUPPLY: AC Adapter/Charger

CHARGE TIME: Approximately 6 hours



DELIVERY MODES

Continuous Feed

- If a continuous feed is administered with the Infinite dose setting, the delivery must be monitored, and additional formula should be added to the bag prior to depletion of the formula. Program the rate (ml/hr) and set the dose to INF (Using the + key)

Infinity

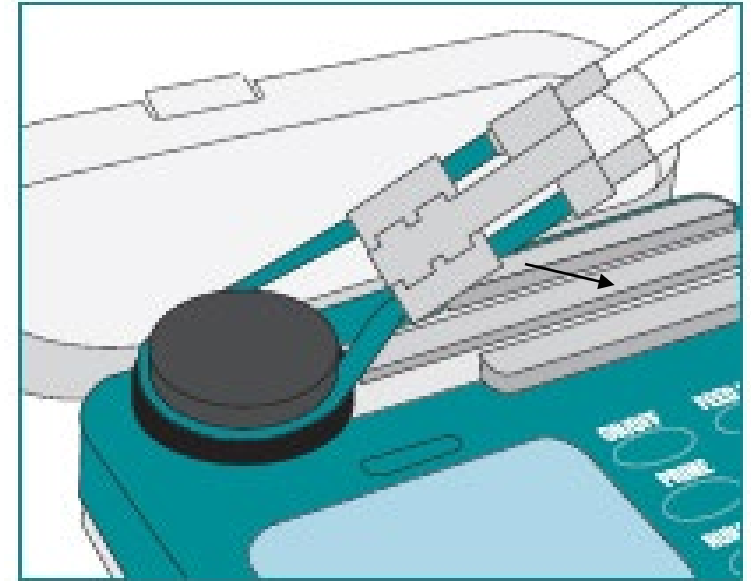
- If the infinite dose setting is used with a measured amount of formula, the pump will alarm when the feeding is complete. Program the rate (ml/hr) and set the dose to INF (Using the + key)

Intermittent Feed

- Intermittent feedings are administered over short periods several times throughout the day. Program the rate (ml/hr), dose (ml) and feed interval (hr.min)


Loading Administration Set

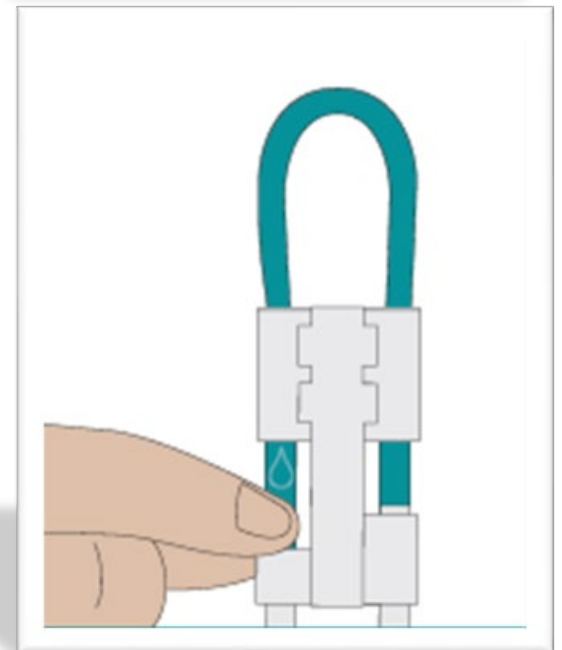
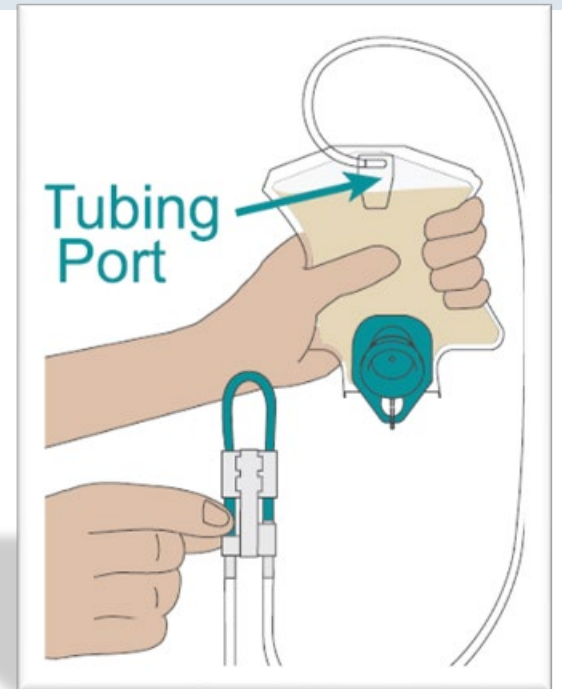
- Loop silicone tubing around pump wheel stretching lightly.
- Place cassette into pump.
- Close pump door.



PRIMING



Manual Prime:

- Ensure tubing is disconnected from the patient.
- Turn formula-filled bag upside down and gently squeeze.
- Tilt bag as needed to evacuate air through tubing port.
- Gently pinch teal colored tubing **below** “” symbol.
- Hold this position until air is removed from tubing. Gently squeeze bag at same time to assist fluid flow. If fluid does not flow, pinch pressure may be too strong.





PRIMING

Auto Prime:

1. Ensure tubing is disconnected from the patient.
2. Press and hold the  key for 1.5 second to turn pump on.
3. Pump will run through a self test. Once self test is complete the pump will display last programmed rate.
4. Press and hold  key. Alarm will sound once and the pump will begin priming the set at an approximate rate of 700ml/hr.
5. Display will read “TO STOP LET GO”.
6. Once auto priming is completed, pump will stop and display last programmed rate.



To remove any remaining air in tubing, the user must run auto prime and stop auto prime when formula reaches the end of the set.

1. To start auto prime again, press and hold the  key.
2. Alarm will sound once, and pump will reinitiate auto prime.
3. Display will read “TO STOP LET GO”
4. When the formula reaches the end of the tubing, release the  key.

Step-by-step Programming

Continuous

- Press and hold ON/OFF key for 1.5 seconds to turn the pump ON
- Press + to set the RATE
- Press RATE/DOSE to display DOSE
- Press + to set DOSE
- Press FEED INT to make sure it is set to NONE
- Press RUN/PAUSE to start

Infinity

THE INFINITE DOSE SETTING IS USED WITH A MEASURED AMOUNT OF FORMULA. THE PUMP WILL ALARM WHEN THE FEEDING IS COMPLETE.

- Press and hold ON/OFF key for 1.5 seconds to turn the pump ON
- Press + to set the RATE
- Press RATE/DOSE to display DOSE
- Press + to set DOSE to INF
 - press + to 3000 then press + to INF
 - If the dose does not go into INF, clear the Feed Interval

Intermittent

- Press and hold ON/OFF key for 1.5 seconds to turn the pump ON
- Press + to set RATE
- Press RATE/DOSE to display DOSE
- Press + to set DOSE
- Press FEED INT to set INTERVAL
- Press and hold the + key to enter hours and minutes
- Press RUN/PAUSE to start

2. DIRECTIONS FOR USE

Recommendation for First Use:

Since battery may not be fully charged when pump is first received, it is recommended that battery be charged for 6 hours prior to operating on battery power (see Page 18 for additional information).

Priming and Loading the Disposable Set

Step 1:

- ▶ If you are using the Infinity Safety Screw Spike Set with a vented bottle or pre-filled bag

Remove protective cover from tip, then insert tip into formula exit port of container. If using the Infinity Safety Screw Spike Set, secure the tip by tightly screwing threaded components together. (Figure 2-1).

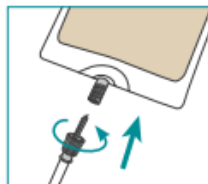


Figure 2-1 Screw Tip onto Container

- ▶ If you are using the 500ml or 1200ml disposable set:

Hold bag upright and pour in feeding solution (Figure 2-2). Close cap securely.



Figure 2-2 Fill Bag

NOTE: Blenderized or aggressively mixed solutions may have foam. If using this type of solution, allow it to sit for 10 to 15 minutes before pouring into bag. This will reduce the chance of an alarm due to air in the tubing.

Step 2:

Remove protective cover from transitional stepped connector. If using pole clamp, protective cover may be placed in the groove on back of clamp (Figure 2-3).

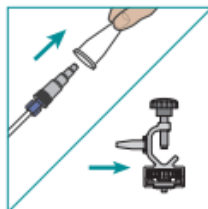


Figure 2-3 Remove Cover from Transitional Stepped Connector / Place Cover on Pole Clamp

NOTE: If set is to be used with a carry pack, all air must be removed from bag and tubing.

Continue to step 3 for instructions on removing air. If set is to be hung above pump, i.e. on an IV pole, you may skip to step 4.

Step 3:

Turn bag upside down and gently squeeze. Tilt bag as needed to evacuate air through tubing port (Figure 2-4).

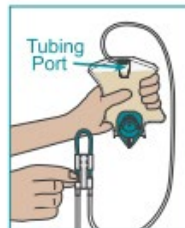


Figure 2-4 Squeeze Bag

Step 4:

Gently pinch teal colored tubing below the symbol. Hold this position until air is removed from tubing. Gently squeeze bag at same time to assist fluid flow. If fluid does not flow, pinch pressure may be too strong. (Figure 2-5).

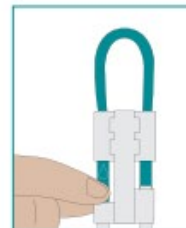


Figure 2-5 Pinch Tubing

NOTE: Inside the teal colored tubing, below the symbol is the in-line occluder. The in-line occluder is the built-in anti free-flow valve.

By pinching tubing gently, the tubing moves away from the in-line occluder allowing fluid to flow (Figure 2-6). It is important to only pinch the tubing below the symbol to avoid damaging the in-line occluder.

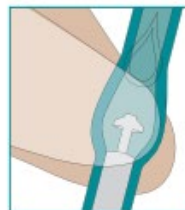


Figure 2-6 Tubing Segment Being Pinched

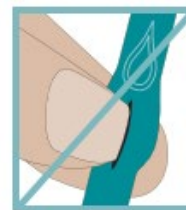


Figure 2-7 Tubing Segment Being Punctured by Fingernail

NOTE: Be extremely careful to pinch tubing using only the flat, soft part of your finger. Do not use fingernails when pinching tubing; doing so may puncture the delivery set (Figure 2-7). If you suspect that the delivery set has been punctured, please discard and use a new set.

NOTE: Air may also be removed from tubing using the pump's priming feature. See step 7 for instructions on using the priming feature.

Step 5:

Loop silicone tubing around pump wheel stretching lightly. Place cassette into pump (Figure 2-8). Close pump door (Figure 2-9).

NOTE: See pages 33-34 for pump use with a backpack.

Step 6:

Press and hold ON/OFF key for 1.5 seconds to turn pump on. While pump runs through a self test, display will light and an audible alarm will sound as pump displays the nine digit serial number three digits at a time for one second each. The display will then show the letter 'R' followed by a number, which is the software revision.

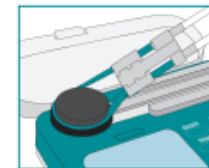


Figure 2-8 Seat Cassette

Next, all segments of display will be shown for 2 seconds. Verify all display segments and symbols are active.

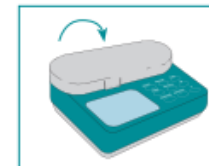


Figure 2-9 Close Pump Door

The self test is complete and pump will then display last programmed rate and will be in pause mode.

If any air is still in the tubing, continue to Step 7 to use pump prime feature.



Figure 2-10 Priming Indication

Step 7:

Press and hold PRIME key. Alarm will sound once and pump will begin pumping at an approximate rate of 700 ml/hr. Display will read "TO STOP LET GO" (Figure 2-10). Once all air is removed from tubing, release key. Pump will stop, display will revert to last programmed rate, and pump will be in pause mode.

NOTE: Occlusion and air in line alarms are disabled while priming.

For pump operation instructions:

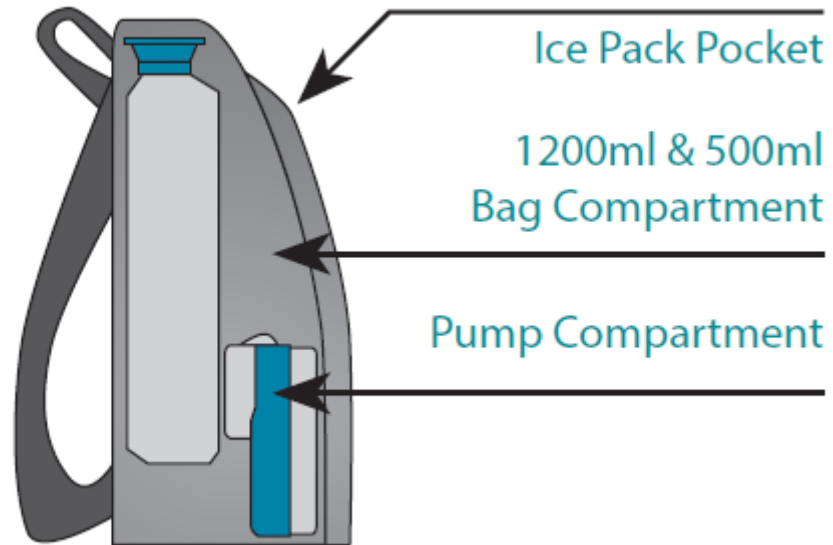
- ▶ For a Single Feeding Example: go to Page 10.
- ▶ For an Interval Feeding Example: go to Page 13.

To clean the Infinity enteral feeding pump:

- ❖ Pump may be cleaned with warm soapy water (standard dish soap) and a nonabrasive sponge or soft cloth. Use a cotton swab to clean pathways of cassette receptacle and to remove teal silicon residue from pump wheel roller pins.
- ❖ Rinse pump by holding under a stream of warm water. Then, dry with a clean cloth.



Backpack



Moog backpack For INFINITY pump. This pack holds the Infinity Enteral Feeding Pump with either a 500ml or 1200ml feeding bag. Also included in this pack is a pocket that may be used to hold an ice pack.

Kangaroo Joey Enteral Feed and Flush Pump

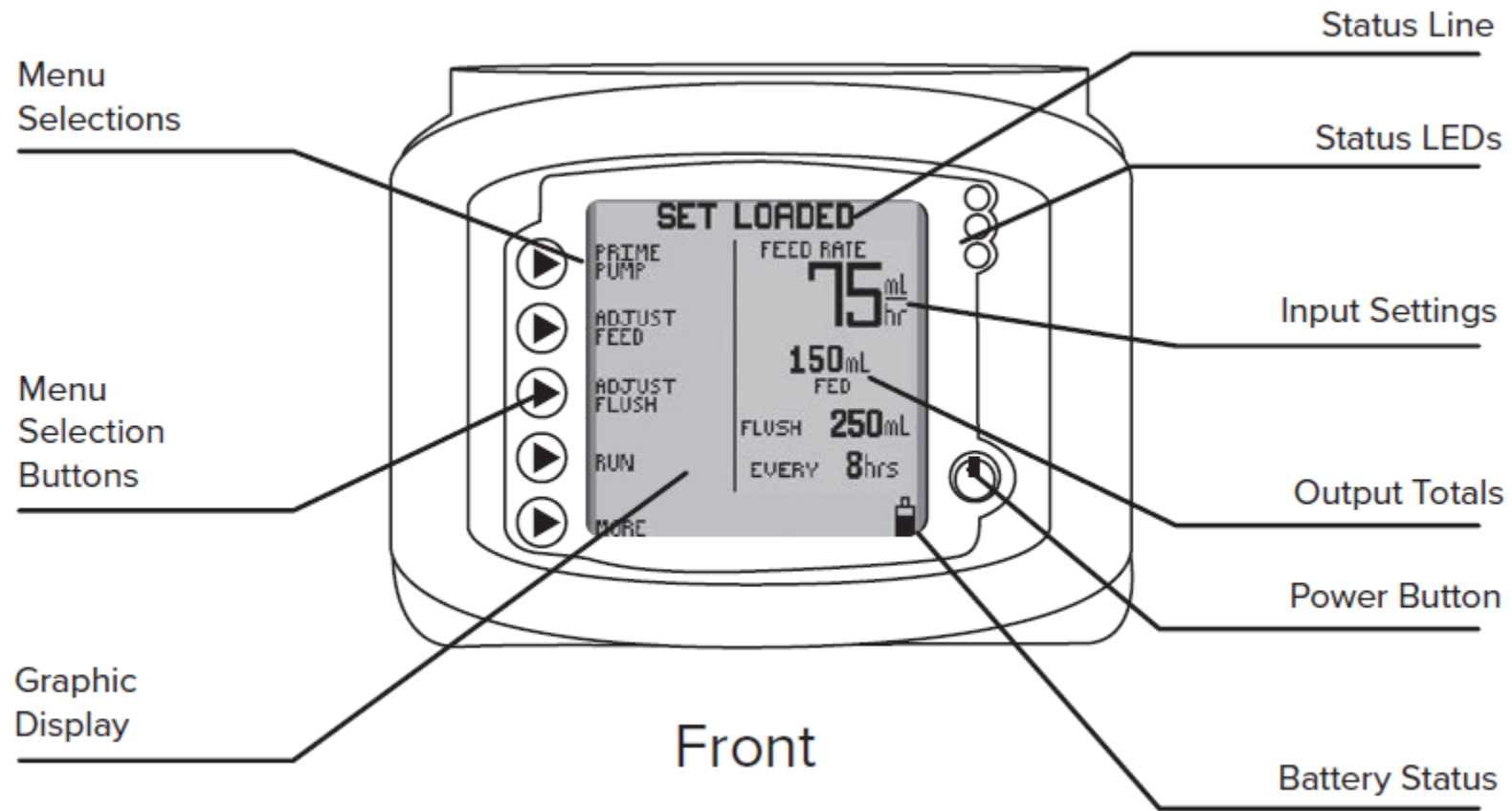




[COVIDIEN KANGAROO WATER PUMP OPERATING MANUAL | ManualsLib](#)

The **Kangaroo Joey Enteral Feed and Flush Pump** is a feeding and hydrating pump, that can be programmed to deliver the optimal amount of nutrition and pre-programmed hydration, helping to ensure patients stay well-nourished and hydrated.

Pump Display



BATTERY AND POWER SUPPLY

BATTERY TYPE: Lithium-Ion Battery

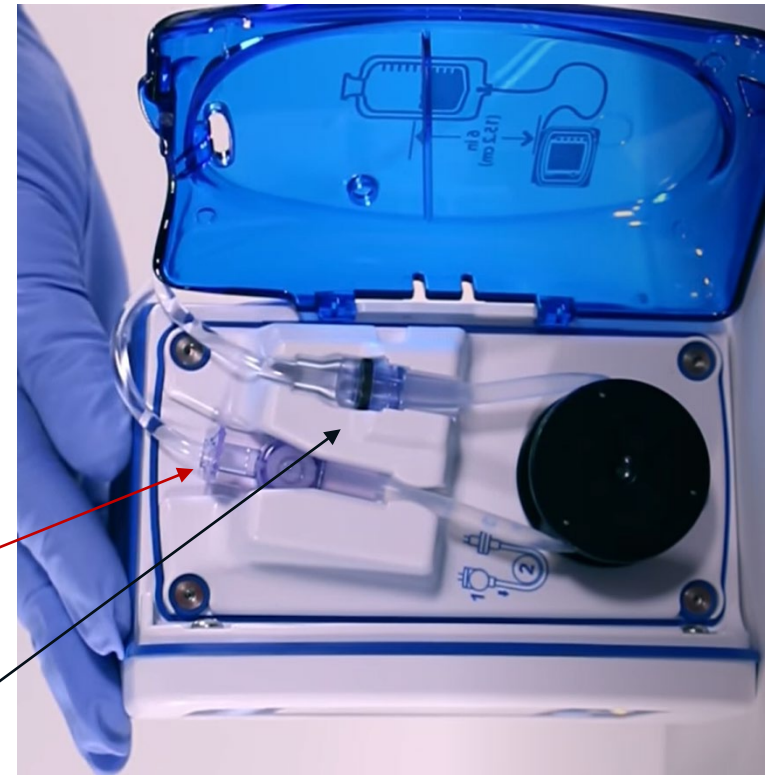
POWER SUPPLY: AC Power Adapter

CHARGE TIME: Approximately 6 hours



Loading Administration Set

- ❑ Locate power button on lower right hand corner of control panel. Press to turn pump on.
- ❑ Confirm if you want to KEEP or CLEAR any prior pump settings.
- ❑ With pump display facing you open blue door at top of pump.
- ❑ Grasp **finger tab on valve** and insert valve into valve slot on the left.
- ❑ Grasp **black ring retainer**, and gently wrap tubing anti-clockwise around rotor. Pull up retainer and insert into slot.
- ❑ Close blue door. Display should read SET LOADED.



Priming the 3-in-1 Feed Only Set

The pump can be primed:

Automatically (press **PRIME PUMP** then **AUTO PRIME**)

or

Manually (press **PRIME PUMP** then **HOLD TO PRIME FEED**)

The pump will then indicate **PRIMING** is taking place.

To complete the **AUTO PRIME**, press **HOLD TO PRIME FEED** until the feed reaches the stepped connection.

Press **DONE** to return to main screen.



Priming the 3-in-1 Feed and Flush Set



The pump can be primed:

Automatically (press **PRIME PUMP** then **AUTO PRIME**)
For feed & flush sets, auto priming will prime both lines.

OR

Manually (press **PRIME PUMP** then **HOLD TO PRIME**).

If manually priming, press and hold the **HOLD TO PRIME FLUSH** first, followed by pressing and holding the **HOLD TO PRIME FEED** option.



DELIVERY MODES

Continuous Mode

- Delivers the enteral nutrition at a steady rate, either until the programmed volume has been delivered or until the supply has been exhausted.
- A feed and flush set can also be used in this mode, enabling the pump to be programmed to automatically flush the feed line and to deliver the programmed amount of feed and pre-programmed flush.

Intermittent Mode

- Delivers boluses of enteral nutrition at programmed time intervals.
- The bolus volume and feed rate are also programmed.
- A feed and flush set can also be used in this mode, enabling the pump to be programmed to automatically flush the feed line and to deliver the programmed amount of feed and pre-programmed flush.

EZ Mode

- A continuous mode only setting. It feeds non-stop (no Volume To Be Delivered (VTBD) option) at a rate 0-400mL/hr as programmed by the user until manually stopped.
- It has no bolus, flushing, run mode screen lock or autoresume capability and displays no history information.
- A Feed and Flush Set can't be used in this mode. Programmed in Biotech Options

HOW TO SELECT **CONTINUOUS MODE**

Press DONE twice to confirm

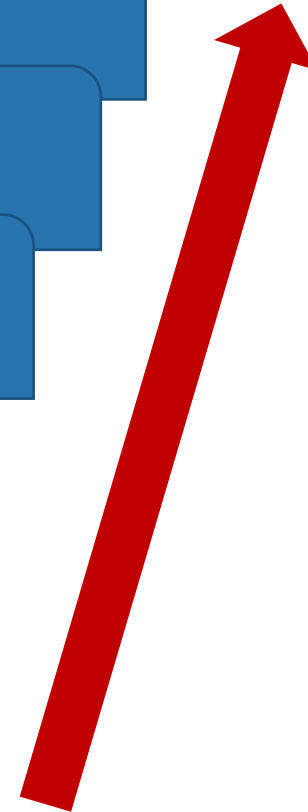
Press CONTINUOUS Mode

Press CONTINUOUS/INTERMITTENT

Press the MORE button

KEEP SETTINGS or CLEAR SETTINGS

Press and hold ON button for 3 seconds



HOW TO SELECT **INTERMITTENT** MODE

Press DONE twice to confirm

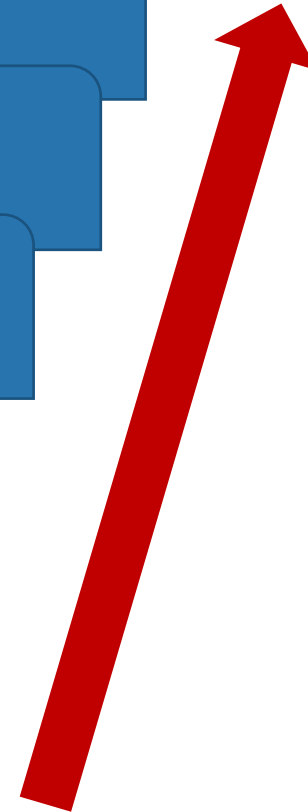
Press INTERMITTENT Mode

Press CONTINUOUS/INTERMITTENT

Press the MORE button

KEEP SETTINGS or CLEAR SETTINGS

Press and hold ON button for 3 seconds





Kangaroo Joey Enteral Feed Only Set

Programming **CONTINUOUS** Feed Mode **FEED ONLY SET**

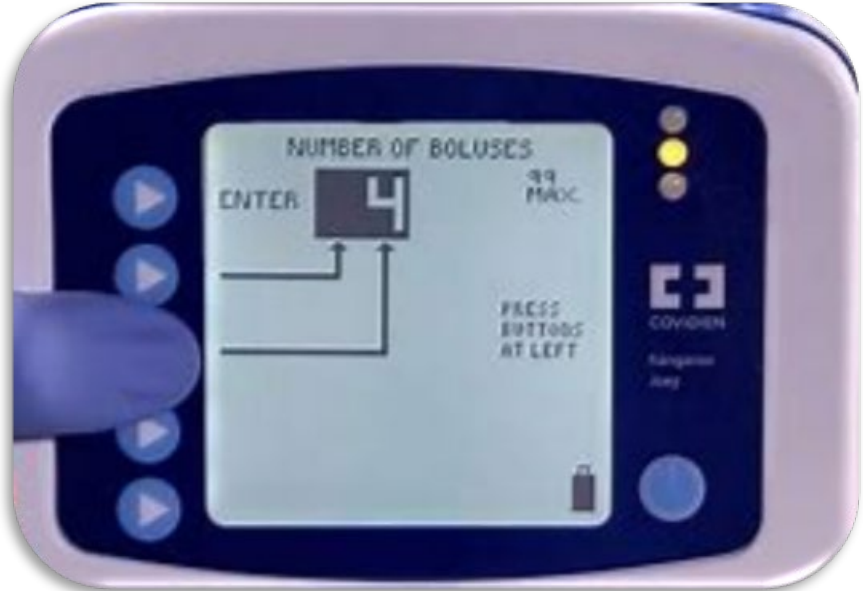
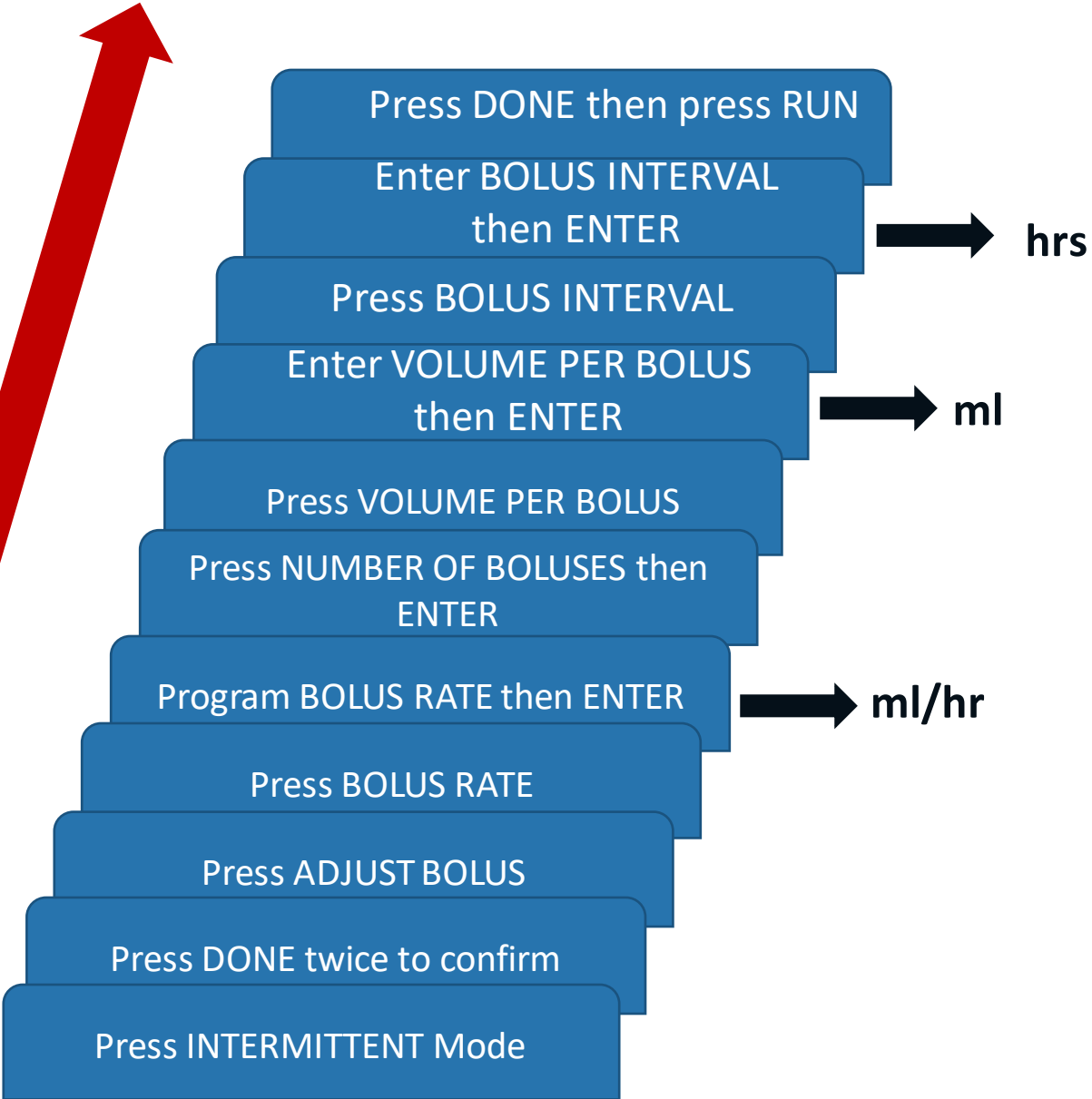
- Press DONE then RUN
- ENTER FEED VTBD then ENTER
- Press FEED VTBD
- Program FEED RATE then ENTER
- Press FEED RATE
- Press ADJUST FEED
- Press DONE twice to confirm
- Select CONTINUOUS Mode

→ If VTBD is set to zero, pump will run until bag is empty

→ ml/hr



Programming **INTERMITTENT** Feed Mode **FEED ONLY SET**





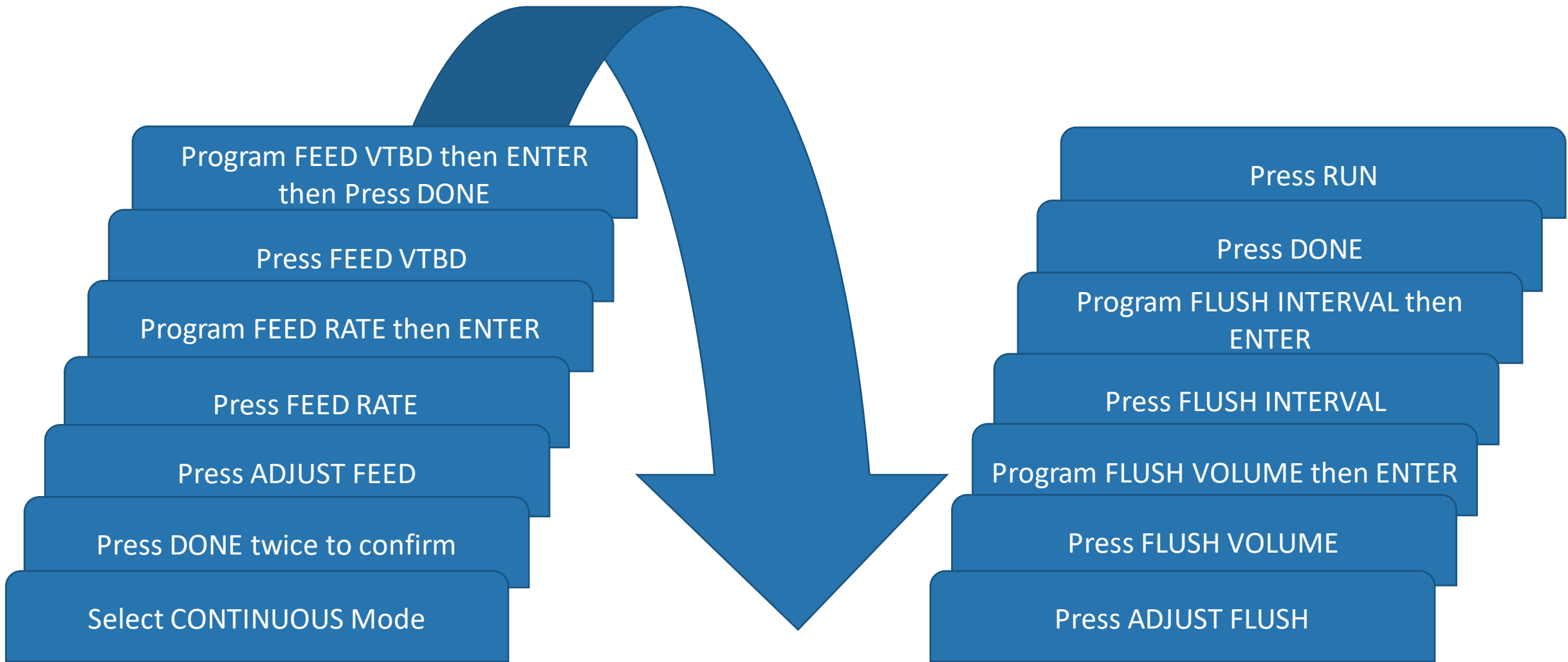
Kangaroo Joey Enteral Feed and Flush Set

Feed and Flush

The pump is programmed to deliver the optimal amount of formula and pre-programmed water flushes, to ensure patients stay well-nourished and hydrated.



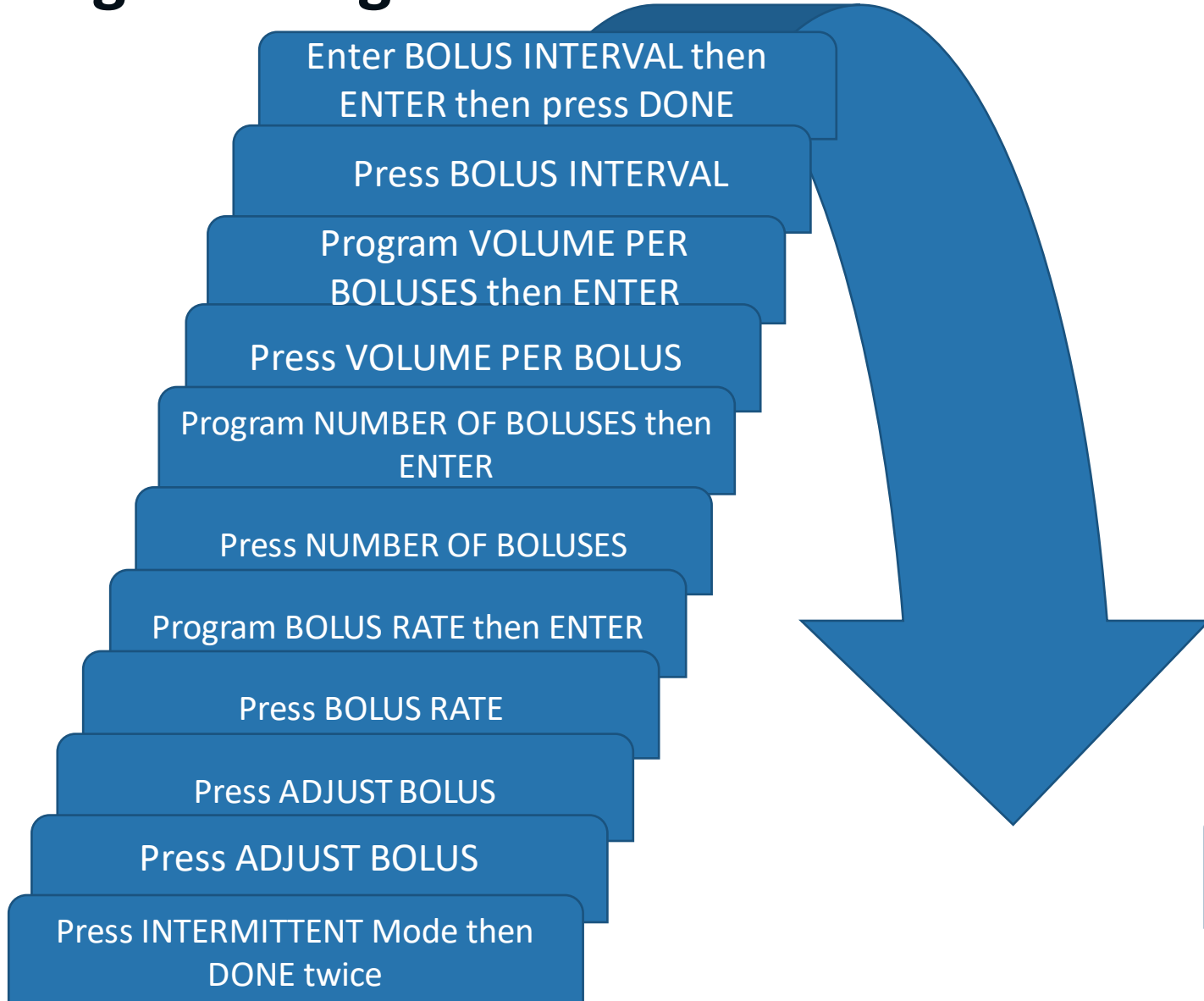
Programming **CONTINUOUS** Feed Mode *FEED and FLUSH SET*



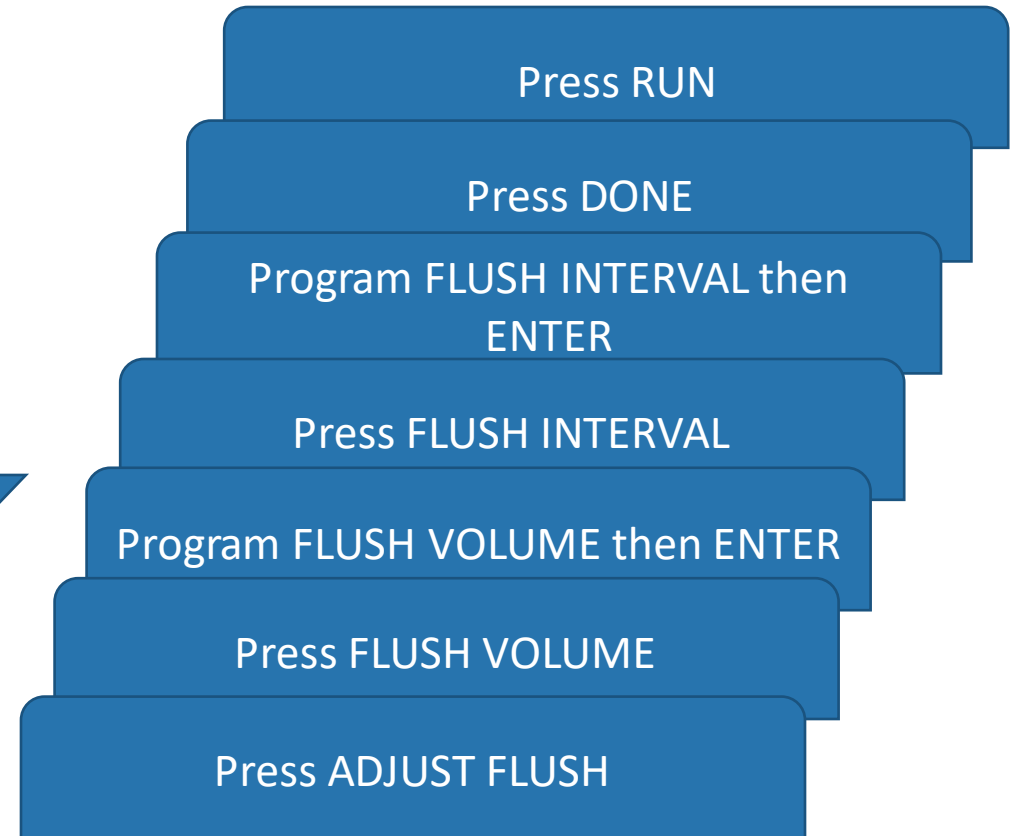
FEED

FLUSH

Programming **INTERMITTENT** Feed Mode *FEED and FLUSH SET*



FEED



FLUSH

Continuous Feed & Flush: step by step programming

Turn pump on (button at bottom right).

Press button for CLEAR SETTINGS.

Press button for ADJUST FEED.

- Press button for FEED RATE.
 - Adjust number for mL/hr.
 - Press button for ENTER.
- Press button for FEED VTBD (volume to be dispensed).
 - Adjust number for total mL of feeding.
 - Press button for ENTER.

Press button for ADJUST FLUSH.

- Press button for FLUSH VOLUME.
 - Adjust number for total mL of each flush.
 - Press button for ENTER
- Press button for FLUSH INTERVAL.
 - Adjust interval in hours for each flush.
 - Press button for ENTER.

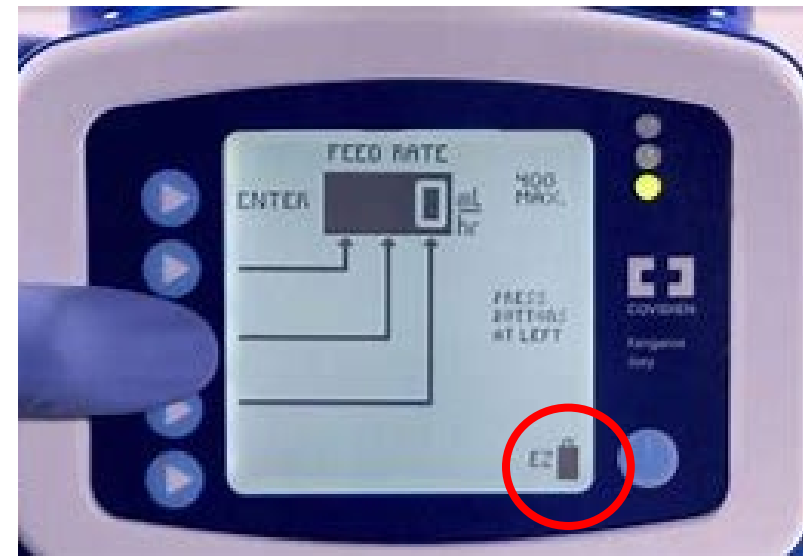
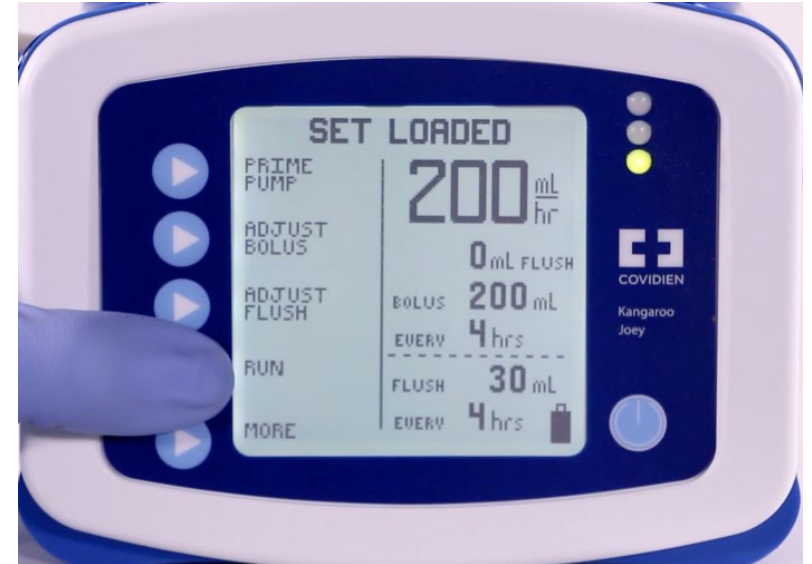
Press DONE.

Press Done again.

Link to resources and operating manual:
[Operating & User Manuals - Enteral Feeding | Cardinal Health](#)

Kangaroo Joey EZ Mode

- ❑ EZ mode is continuous mode only
- ❑ **EZ** by battery image)
- ❑ Only adjust rate
- ❑ Will run until the sensor identifies air in the tubing as no food



To clean the Kangaroo Joey Enteral Feeding Pump:

Disconnect pump from AC power source before cleaning.

Do not immerse pump or A/C Power Adapter in water or other cleaning solution.

Clean under blue door and exterior of pump with a damp cloth. A mild detergent may be used for general cleaning.



Backpack for Kangaroo Joey



ENTERAL KEY POINTS

Enteral bags are to be changed **DAILY**

Formula hang time at room temperature:

- Adults: 8 hours
- Pediatrics: 4 hours
- Neutropenic patients: 4 hours

Piston Syringes are changed **WEEKLY**

Disassemble Piston syringe and wash each component after every use and allow to air dry

Lopez Valve or Dale Ace Connectors change **MONTHLY** or PRN for occlusion



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Thank you for participating!

Please reach out with questions or for information on additional training opportunities.