

# RESIDUAL VOLUME

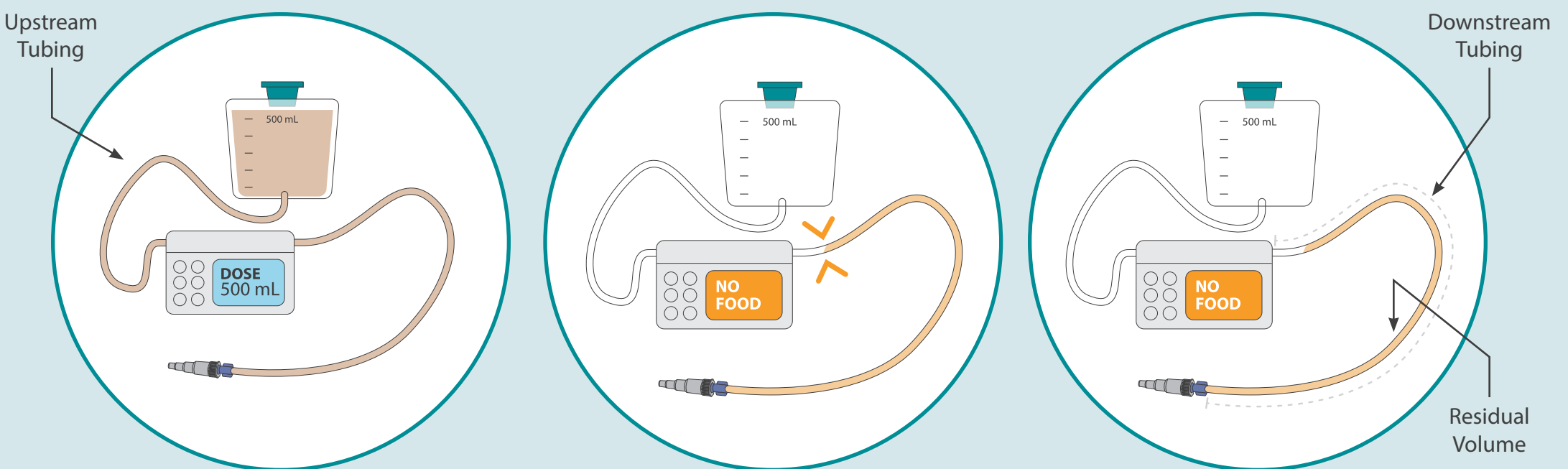
## COMPENSATING FOR FORMULA REMAINING IN THE TUBE FOLLOWING A FEEDING

When an enteral feeding is completed, a small amount of formula typically remains in the downstream tubing of the delivery set. This undelivered formula is often referred to as residual volume. Understanding why residual volume occurs, and how to compensate for it is important to ensure proper caloric intake.

### WHY FORMULA REMAINS IN THE TUBE

Upstream Tubing: Segment of tubing between the feeding bag and the pump  
Downstream Tubing: Segment of tubing between the pump and the patient

#### ▼ An example feeding of 500 mL of formula ▼



500 mL of formula is poured into the bag set and the feeding tube is primed. Priming the tube ensures that air is not present in the tubing, and that the formula is ready to be delivered. The pump is then programmed to deliver a dose of 500 mL.

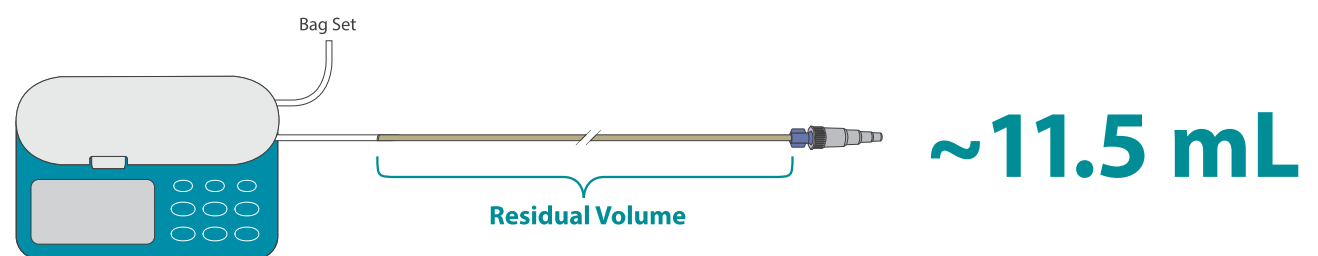
The pump delivers the formula, emptying the bag. As the bag is emptied, air enters into the tubing. Once sufficient air passes the sensor, the pump determines that the bag is empty, sounds an alarm, and stops delivery of formula.

Because the bag and upstream tubing are empty, the pump will not deliver the formula remaining in the downstream tubing - which was part of the original 500 mL dose to be delivered. **This is the residual volume.**

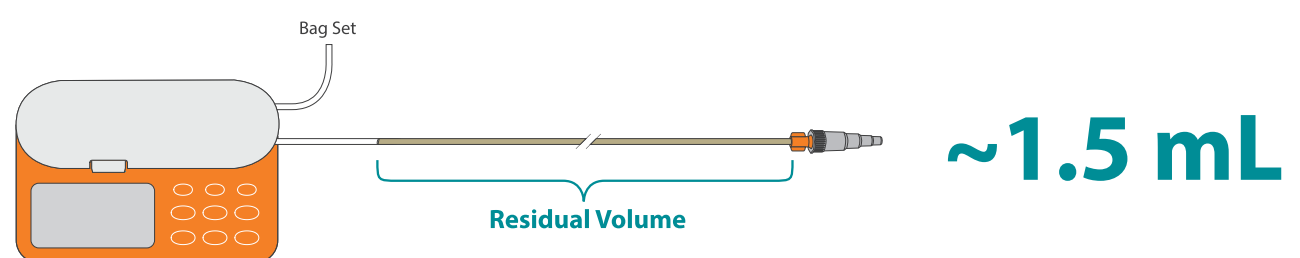
### RESIDUAL VOLUME

Different pumps and delivery sets have different residual volumes. Residual volumes of the Infinity Enteral Feeding Pump and Infinity Orange Small Volume Enteral Feeding Pump are shown below.

**Infinity**<sup>®</sup>  
Enteral Feeding Pump  
BY MOOG<sup>®</sup>



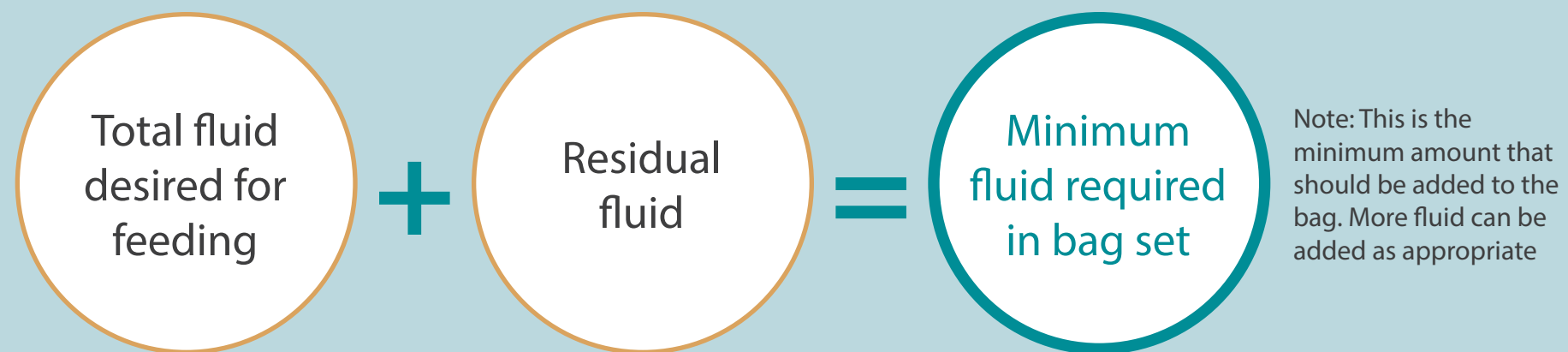
**Infinity orange**<sup>®</sup>  
Small Volume  
Enteral Feeding Pump  
BY MOOG<sup>®</sup>



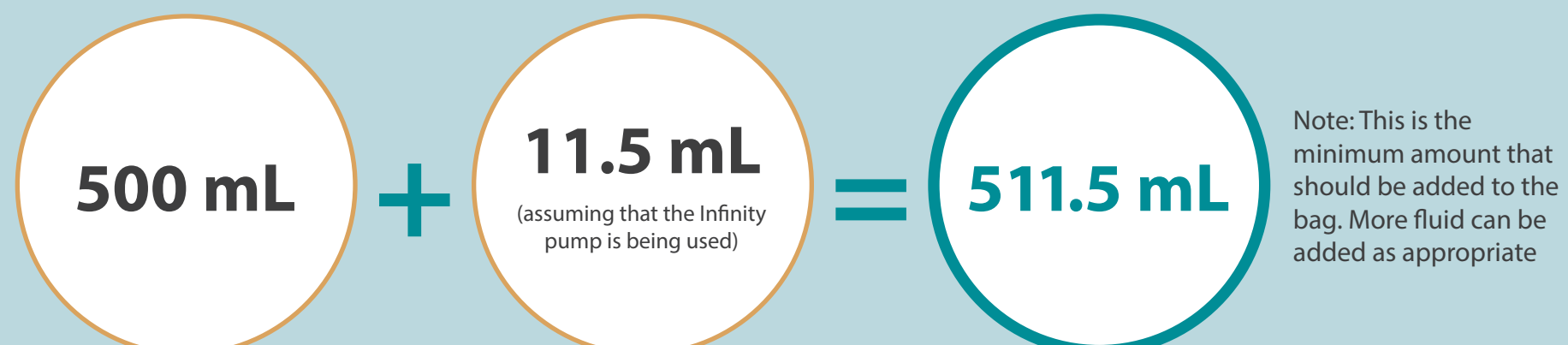
Note: When using the Infinity, approximately 1 mL of air, which is roughly 5" in length, enters the downstream tubing before the pump sounds an alarm.

### COMPENSATING FOR RESIDUAL VOLUME

To ensure sufficient formula is delivered, you may need to compensate for residual volume left in the downstream tubing segment. To determine how much formula should be filled in the feeding bag, follow the calculation below:



#### ▼ An example feeding of 500 mL of formula ▼



It is not necessary to program the dose to be delivered on the pump higher than the desired amount to be delivered. The pump will always stop feeding once the dose limit has been reached. Consult with a healthcare provider to determine specific individual needs regarding residual volume.