

# Central Venous Port

## 1 Introduction. 1

I'm Dr Jonathan Salo, I'm a GI Cancer Surgeon in Charlotte, North Carolina.

Because the esophagus and stomach are so important in digestion, cancers of the esophagus or stomach can make it difficult to get the nutrients you need.

A feeding tube can help nutrition in these cases.

In this video you'll learn about one type of feeding tube, the feeding jejunostomy.

If you haven't already, take a look at our video on nutrition

There are two categories of feeding tubes:

- Gastrostomy tubes are placed in the stomach
- Jejunostomy tubes are placed into the jejunum, the first portion of the small bowel

This video focuses on jejunostomy tubes. Gastrostomy tubes are the focus of another video.

Food travels from the esophagus to the stomach, and then into the duodenum, and then into the first part of the small intestine called the jejunum.

The stomach serves as a reservoir for food, and begins the process of digestion. The stomach then pushes food through the pylorus muscle into the duodenum. The pylorus serves as a control valve to make certain that food only enters the duodenum in small amounts at a time. The stomach releases only a small quantity of food at a time because the jejunum can become easily overwhelmed by too much food at one time

A jejunostomy tube is used for feeding and is placed into the jejunum, or the first portion of the small intestine.

A jejunostomy tube has a portion on the inside located inside the small bowel, and a portion outside which is connected to a feeding tube pump.

Because the small bowel can only handle a small amount of food at a time, it is necessary to use a pump to administer jejunostomy feedings over a long period of time, typically 12 to 16 hours.

Feedings are performed with a specialized formula which is similar to products such as Ensure or Boost.

So if you have a jejunostomy tube, how much formula do you need?

One answer is that your dietitian will calculate your nutritional needs precisely, but we will discuss this in rough terms.

An 8oz carton of a “1.5” feeding tube formula contains 360 calories and 15 grams of protein

Someone weighing over 150 pounds who gets all of their nutrition from the feeding tube needs about 5 cartons per day, which would give 1800 calories and 75 grams of protein daily.

Five cartons of tube feeds is 1200mL per day. This can be given over a 16 hour period at a rate of 75mL/hour.

Someone weighing under 150 pounds who gets all of their nutrition from the feeding tube needs about 4 cartons per day, which would give 1440 calories and 60 grams of protein daily.

Four cartons of tube feeds is 960mL per day. This can be given over a 16 hour period at a rate of 60mL/hour.

Your dietitian will calculate exactly the quantity and rate of your tube feeds, which will depend upon factors such as your weight and how much you are able to take by mouth.

We mentioned earlier that tube feeds are typically given over 16 hours, so let’s unpack that.

For most patients, one of the goals of tube feeding is preserving and rebuilding muscle mass.

In order to achieve this goal, it’s important both to take in sufficient nutrients, but also to exercise to send the signals to your body to use that nutrition to build up muscle rather than store that nutrition as fat.

By running the tube feeds for 16 hours, it permits being unplugged from the feeding tube pump for 8 hours per day, which will allow walking and exercise.

In some unusual cases, it is necessary to administer tube feeds over a 24-hour period. If this is the case, check with your care team to ask their recommendations regarding pausing the tube feeds to allow exercise.

I am frequently asked whether it is possible to administer tube feeds at a higher rate, in order to minimize the feedings over a shorter period of time.

There is a practical problem here. If the tube feeds are administered too fast, it can overwhelm the ability of the small bowel to absorb nutrients. It can also cause diarrhea, which is unpleasant, particularly at night.

Your dietitian will choose a tube feed formula based upon your nutritional needs and whether you have other medical conditions such as diabetes. In addition, your hospital or home care provider may will likely have a contract with a particular manufacturer of nutritional products. In general, however, there are three basic types of formula based upon the protein used.

Standard formulas used protein that has been chemically broken down so that it is easier for you to digest.

Peptide-based formulas use protein that has been broken down further. These formulas can be easier to digest, but are also more expensive.

Elemental formulas use proteins that have been broken down to single amino acids

Your dietitian can help choose a formula that meets your needs.

In addition to tube feed formula, it is important to take in sufficient water, either by mouth or through the tube.

Most patients needs 4 or 5 8 oz cups of water per day. This means 32 to 40 ounces of water per day.

Water can easily be given through the jejunostomy tube 8 oz (1 cup) at at time.

## 2

Feedings are typically

- Jejunostomy tube feeds for 16 hours (6pm-10am)
  - Men: 75mL/hour x 16 hours = 5 cartons
  - Women: 60mL/hour x 16 hours = 4 cartons
- Water 240ml (8oz) via syringe 4x/day

Hospital nurses will teach use of the feeding tube

## 3 Jejunostomy Feeds with Diabetes

Jejunostomy feedings elevate blood sugars

- Insulin may be required along with feeds

Typical Pattern for tube feeds

- Feeds run via pump from 6pm to 10am
- Insulin at 6pm (70/30 insulin)

- Insulin at Midnight (70/30 insulin)
- No insulin if tube feedings are not run

## **4 Jejunostomy Video**

A video is available to help become familiar with the feeding jejunostomy



We hope you have found this video helpful.

Flush before and after feedings (why?) Keep head of bed elevated during feedings???

Meds via feeding tubes