

## Patient Education Series: “Infusing Your TPN”

### Introduction

Your home care nurse will give you detailed instruction on how to administer your TPN. This teaching sheet is intended to provide “reminders”, and should be used in addition to detailed demonstration and instruction.

Your TPN will be administered through an IV catheter (PICC, Port or other central line) using an electronic pump to control the flow rate. We have prepared this booklet to make it easier to learn what you need to know. Please feel free to call your home care nurse or pharmacist if you have any questions about your infusion. Always feel free to ask questions or express concerns during your learning process.

### Key Points About Your TPN Therapy

- Your TPN and supplies will be delivered on a regular schedule. Usually they are delivered once per week. You may get a “supply check” phone call before your delivery. Be prepared to let the pharmacy know how many bags of TPN and other supplies you have left.
- Your supplies should be kept away from children and pets. Keep the supplies in a closed storage box in an area that is dry and dust free.
- Your TPN should be given on a regular schedule based on your doctor’s prescription. The schedule varies from one patient to another. You should discuss your schedule with your nurse or pharmacist.
- Your TPN might be given on a “cyclic” schedule (a continuous infusion for part of the day) or on an “around the clock” continuous schedule. This is based on your doctor’s prescription and on how well you tolerate the infusion rate.
- One of the most important points in infusion of TPN is **infection control**. Please follow all instructions regarding hand washing and using aseptic technique, which prevents contamination of your supplies and your catheter (PICC, Port, or other central line).

- Your TPN will be given using an electronic pump. Please notify your pharmacy immediately if you notice anything unusual in the pumps operation.
- Before administering your daily bag of TPN, it must be allowed to warm to room temperature. Remove it from the refrigerator 2-4 hours before administration. (DO NOT put TPN in the microwave or warm water to warm).
- The TPN must be inspected for cloudiness, particles, or crystals before administration.
- If your TPN solution includes lipids (white and milky fat), you must check the bag before administering for “Cracking”. Your nurse will show you how to look for a slick oily layer on the top of the solution. NEVER infuse a bag that has “cracked”. A brown streak visualized in the solution is another reason that the solution should not be used. If another bag of solution is not available, notify your nurse or pharmacist immediately.

### Supplies for TPN Administration

- Room temperature bag of TPN
- Administration tubing
- Filter
- Electronic pump
- Vials containing multivitamins and other additive medication as prescribed
- Syringe and needle
- Alcohol wipe pads

### Steps for Infusing TPN

1. Prepare a clean working area.
2. Set out your TPN and allow to warm to room temperature (2-4 hours).

3. Inspect your TPN. If your TPN contains lipids, check for “cracking” (oil slick on top surface of solution). Turn the bag upside down in front of a white or black background. Watch for crystals, particles, or ANY sign of cloudiness or streaking.
4. Assemble your supplies.
5. Wash your hands with warm soap and water for 15 seconds or used alcohol based hand sanitizer.
6. Prepare multivitamins and other additives as instructed...follow instructions on “Using Medication Vials” education sheet.
7. Clean the injection port on the bottom of your TPN bag with an alcohol wipe for 15 seconds. Insert the needle of the syringe into the injection port and inject the multivitamins and any other prescribed additive medications. Turn the bag upside down several times to mix. Do not shake the bag.
8. Remove the administration (pump) tubing from its wrapper. Close the clamp on the tubing.
9. Remove the protective covers from the spike port of the TPN, and the spike of the administration tubing. Insert the spike into the spike port. Twist the spike back and forth to securely seat it into the TPN.
10. Attach the pump tubing to the electronic pump and insert battery (there is no on/off button. To turn the pump off, take the battery out of the pump.)
11. Open the tubing clamp and follow the pump instructions for “priming the tubing”. Continue to prime the tubing until TPN fills the entire tubing line.
12. Clean the needle free access device (end of PICC line, port or other central line) with an alcohol and flush your catheter with 10 cc saline as taught by your home care nurse.
13. Remove the protective cover from the end of your pump tubing and attach the pump tubing to the needle free access device.
14. Follow the pump instructions to begin infusing your TPN.

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## When the Infusion is Complete

1. Turn off the infusion pump (if you are not hanging a new bag at this time.)
2. Disconnect the pump tubing from the patient.
3. Post-flush the catheter with saline if you are doing continuous feedings. Post-flush with saline AND heparin if you are doing cyclic feedings (then clamp the patient's catheter).
4. Throw away all used supplies.
5. If doing continuous feedings, begin preparing to hook up a new TPN infusion. If doing cyclic feedings, you can stay disconnected until the next scheduled TPN infusion.

## When to Call Your Nurse or Pharmacist

- You are unable to flush your catheter
- You notice swelling, redness, or pain in your arm or shoulder on the side of your venous catheter
- You have contaminated your last bag of TPN and need another replacement bag as soon as possible
- You see cloudiness, streaking, particulates or “cracking” in your bag of TPN
- You experience fever, chills, or nausea when you begin your TPN infusion
- You have shortness of breath or difficulty breathing
- You have symptoms of “allergy”, such as itching or swelling

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- You have ringing in your ears during infusion
  - Weight gain of more than 5 lbs in a week
  - Swelling in your hand and feet
  - If your glucose level is above the following: \_\_\_\_\_

(Not all patients are instructed to check their blood sugar. So, this may not apply to you.)