

# Home Infusion Nutrition Therapy (TPN)



Allina Health

## Phone Numbers

Health care provider's name: \_\_\_\_\_

Health care provider's phone number: \_\_\_\_\_

Home infusion company: \_\_\_\_\_

Home care nursing agency: \_\_\_\_\_

Other numbers: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

## Home Infusion Nutrition Therapy (TPN)

Your health care provider has ordered home infusion nutrition therapy for you. When you are not able to get enough nutrition through eating, infusion therapy is a treatment that gives nutrition through an IV line in your hand, arm or chest area. Your health care provider may also want to add medicines or supplements to your infusion therapy.

Infusion therapy is usually given in the hospital. However, it is possible for some infusion therapy to be given in the comfort of your own home.

The information in this booklet includes information for:

- what supplies you will need
- how to add medicines or supplements to your infusion therapy
  - how to prepare the syringe
  - how to prepare the TPN bag
  - how to prepare the tubing and pump
- how to flush the catheter using the SASH method and pre-filled syringes
- when to call your home care nursing agency
- possible problems (complications) and what to do if they occur
- activity information.

### Important

Wash your hands before preparing your home infusion nutrition therapy (TPN).



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### Supplies for home infusion nutrition therapy.

### What Supplies You Will Need

- nutrition therapy (TPN) bag
- pump
- tubing
- TPN backpack
- alcohol wipes
- sharps container
- 2 pre-filled saline syringes
- 1 pre-filled heparin syringe (if ordered)
- 10 milliliter (mL) syringe with needle
  - For multivitamins, use one syringe for both vials.

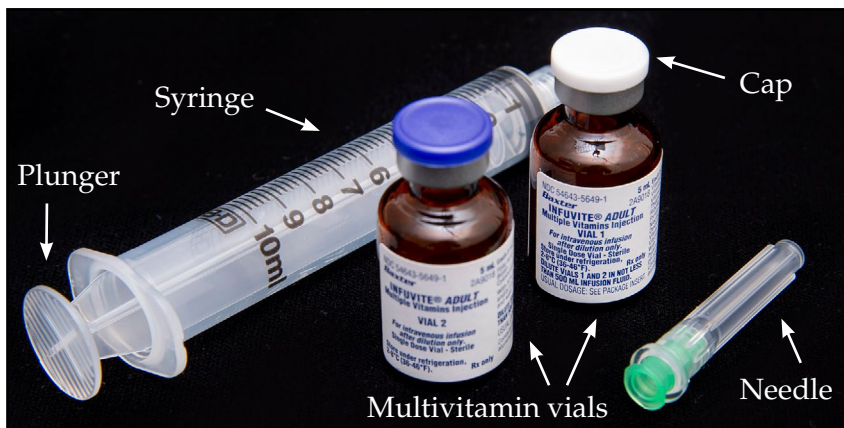
#### Important

You will only have 1 type of heparin (yellow or blue cap) syringe.

- insulin syringe with needle (if ordered)
- medicines:
  - multivitamins (2 vials)
  - insulin (if ordered): \_\_\_\_\_ units
  - \_\_\_\_\_
  - \_\_\_\_\_
- 4 AA batteries or a rechargeable battery pack

#### Tip

You may need to replace the batteries in the pump. Keep a stock of AA batteries on hand in case you need them. You can also use a rechargeable battery pack.



Supplies for preparing the syringe.

## How to Add Medicines or Supplements to Your Infusion Therapy

### Preparing the syringe

1. Remove the cap from the medicine vial(s).
2. Scrub the top of the vial(s) with an alcohol wipe for 15 seconds. Use a new wipe for each vial.
3. Open the syringe package and leave the syringe setting in it. Remove the needle from the package. Do not touch the green end. Place the needle onto the syringe and twist until it fits securely. Do not remove the needle cap.
4. Pull back on the syringe plunger to add air to the syringe. The amount of air you add should be the same amount of medicine or supplements you will take from the vial.
5. Hang medicine bag on IV pole.

### Important

If the tip or end of the needle touches any surface, throw it away and start over with a new needle.

6. Remove the cap from the needle. Insert the needle into the center of the vial. Turn the vial upside-down. Gently push the syringe plunger to slowly push air into the vial. Pull back on the plunger. Make sure to keep the tip of the needle in the medicine or supplements. After you have filled the syringe with the correct amount, remove the syringe from the vial.
7. If you have 2 vials, repeat steps 4 and 5.
8. Hold the syringe with needle pointing toward the ceiling. Gently tap the syringe and push on the plunger until all air is removed.

### Important

- Multivitamins come in a set with 2 vials. Make sure you use 1 vial of each color. You should use the same syringe for both multivitamin vials.
- If your health care provider ordered insulin, use a syringe measured in units (insulin-specific syringe).
- Some medicines may be already prepared for you. For these, you will only need to attach the needle and add the medicines to the TPN bag.



Supplies for preparing insulin.



Do not use      Additive port      Infusion port



Additive port      Infusion port      Do not use

Your home infusion nutrition therapy (TPN), will be in a TPN bag similar to one of these. You will only have one type of bag.

### Preparing the TPN bag

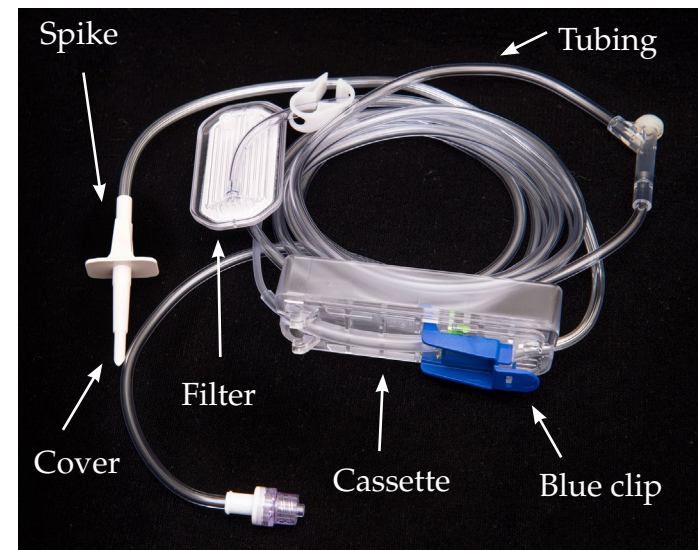
1. Scrub the additive port on the TPN bag with an alcohol wipe for 15 seconds.
2. Slowly insert the needle into the center of the additive port, being careful not to poke a hole in the port.  
**Important:** If you poke a hole in the port, call your pharmacy right away.
3. Push the syringe plunger to add medicines or supplements to the TPN bag. Remove the syringe and place it in your sharps container.

4. Repeat until all medicines and supplements have been added to the TPN bag. Once your bag is ready, gently “knead” (massage) the bag to mix the medicines or supplements into the solution. **Important:** If it is not mixing well and you notice streaks or separation, call your pharmacy right away.

### Preparing the tubing and pump

1. Remove the tubing from the package.
2. Pull the blue clip from the bottom of the cassette and tear off the white paper strips.
3. Attach the tubing to the TPN bag by:
  - removing the tab from the infusion port on the TPN bag
  - removing the cover from the spike of the tubing
  - pushing and twisting the spike into the middle port of the TPN bag until it is securely in place.

**Important:** Make sure you do not touch the end of the port or spike as you attach the tubing to the TPN bag.



4. Connect the tubing to the pump.

- **Press and hold the power button** on the right side of the pump to turn it on. The pump will do a self-check and beep when it's ready.
- Open the cassette latch to a 90-degree angle (as shown below). Attach the cassette to the pump by hooking the hinges onto the bottom of the pump, matching the plastic peg into the matching hole.
- Push the cassette latch to the closed position.

5. Reset the reservoir volume.

- You should see *Reset reservoir volume to ...?* on the screen. (The volume will be specific to your infusion therapy.) **Select "Yes."**



Connecting the tubing to the pump.

6. Prime the tubing.

- You should see *Prime tubing?* on the screen. **Select "Yes."**
- You should see *Disconnect tubing from patient, open clamps, then press "prime" on the screen.* **Select "Prime."**
- When you see liquid at the end of the tubing and no air is left, **select "Stop priming."**
- You should see *Continue priming?* on the screen. **Select "No"** if you see liquid at the end of the tubing and no air is left.

**Important**  
Make sure the filter on the tubing hangs straight down as it primes.



The buttons you will use to select options on the screen.

- Flush the IV catheter. (See instructions below.)
- Remove the cap from the end of the tubing. Connect the end of the tubing to your IV line.
- You should see *Start pump?* on the screen. **Select “Yes.”**  
You should see *Infusion is starting now* on the screen.

## Flushing Your IV Catheter

You have had a \_\_\_\_\_  
IV catheter placed under your skin (into your vein).  
The IV must be flushed at certain times to prevent it  
from becoming plugged.

### Supplies you need

- 4 alcohol wipes
- 1 or 2 pre-filled saline (sodium chloride) syringes.  
If you have been instructed to do a flush with heparin,  
use 1 or 2 heparin syringes. The number of syringes you’ll  
need will depend on how many ends (lumens) your  
catheter has.

### Flushing your IV catheter

Your health care provider may teach you a technique called  
the “SASH method” to flush your IV catheter.

#### SASH stands for:

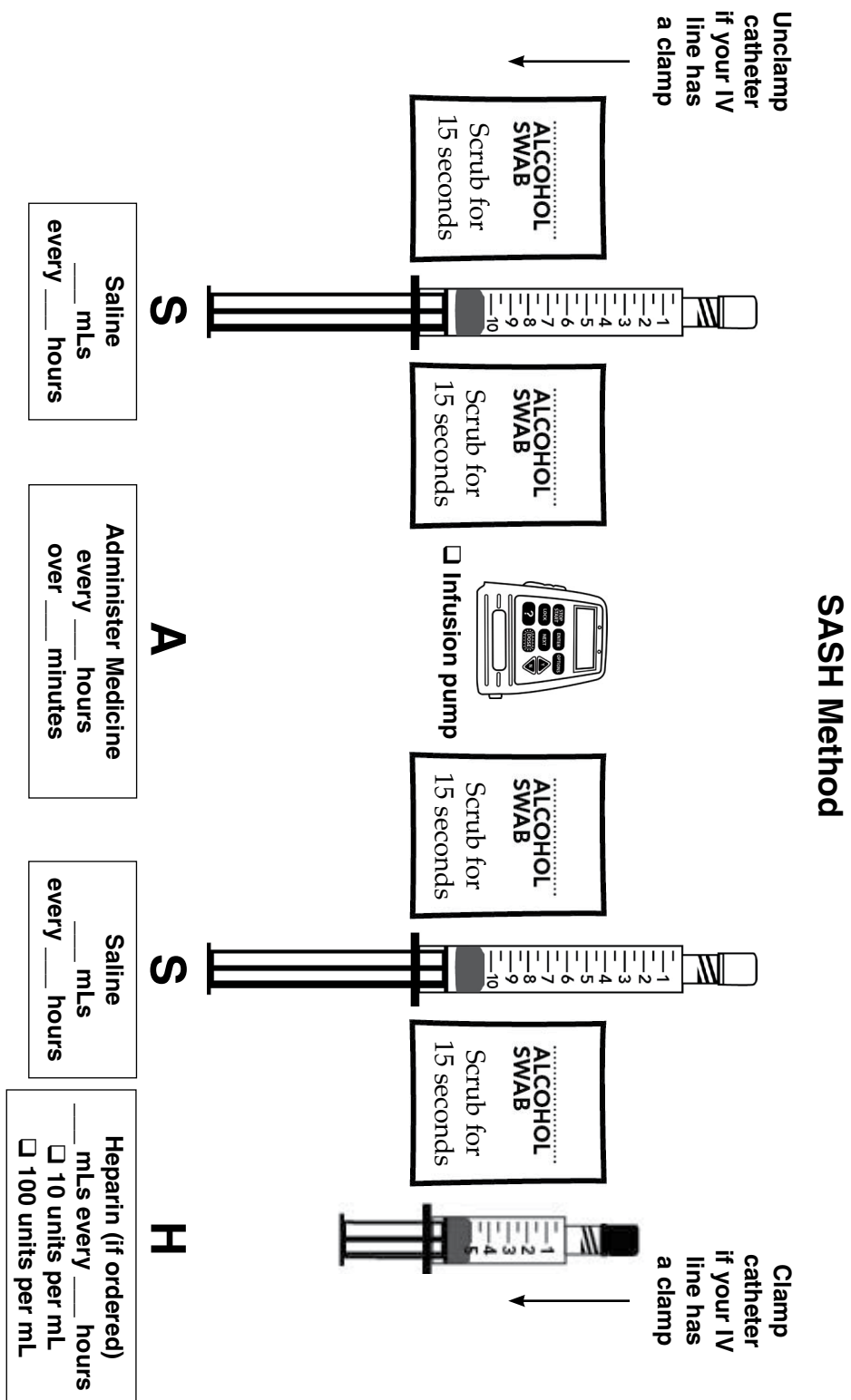
**S:** Saline

**A:** Administer medicine

**S:** Saline

**H:** Heparin (if ordered)

Use the guide on the next page to help you use the SASH  
method.

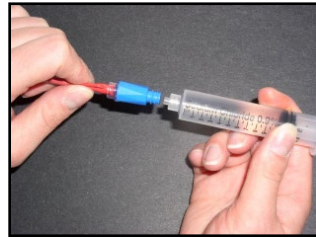


## How to flush the catheter with a pre-filled syringe

- Clean your work area, gather your supplies and wash your hands before starting.
- Remove the pre-filled saline syringe from the package.
- Remove the cap or plastic cover from the tip of the syringe.
- Hold the syringe so the tip points upward.
- Slowly push up on the barrel or plunger of the syringe to remove air bubbles from the syringe.
- Hold the syringe between your middle finger and pointer finger (index finger) to keep the tip of the syringe from touching anything.
- Pick up an alcohol wipe. Open the alcohol wipe and scrub the end of the cap or the valve on the tip of the catheter for 15 seconds. Allow to dry for 15 seconds.
- Screw the syringe firmly into the end cap or valve of the catheter.
- If your catheter has a clamp on it, open the clamp.
- Push on the plunger or barrel of the syringe in a push-pause motion. Push (or flush) the saline solution into the catheter. The push-pause motion creates motion (turbulence) in the catheter to clean it better.



**Clean the catheter while holding the syringe in one hand. Be sure the syringe tip does not touch anything.**



**Screw the syringe into the end of the cap.**

- **If you feel resistance while flushing, stop.** Do not force it. Resistance could mean the catheter is plugged. Forcing the syringe flush may damage the catheter or break off an internal blood clot in your bloodstream, which could be very dangerous. Make sure if you have a clamp, it is open. If you cannot flush the catheter, call your home care nursing agency or home infusion pharmacy.



**If your catheter has a clamp, be sure to open and close it as you were taught.**

- If your catheter has a clamp on it, clamp the catheter when you are done with the flush.
- After flushing the catheter, unscrew the syringe from the end of the catheter and throw the syringe away.
- Repeat the steps to flush the second end if the catheter has two ends.

Straining or heavy lifting may make blood back up into the catheter. If you see blood in the catheter, flush right away using the above steps. Flush again at the routine time.

Notes or questions for your home care nursing agency:

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## When to Call Your Home Care Nursing Agency

Call your home care nursing agency if:

- the catheter breaks or comes out
- you have shortness of breath or feeling of discomfort in your chest
- you have swelling of your hand, arm, chest, shoulder or neck on the side where the catheter is
- you are unable to flush the catheter with normal pressure
- the dressing gets wet or becomes loose
- you have a burning sensation when flushing the catheter
- bleeding at the catheter site after the first couple of days
- you have signs of infection, which may include:
  - a temperature of 100.4 F or higher
  - chills, shaking, body aches or sweating, especially when flushing the IV catheter
  - pain at the catheter or along the catheter where it lies under the skin
  - increased redness, swelling, drainage or pain where the catheter comes out of the skin.

## Problems (Complications)

### If the catheter breaks

- If there is a clamp, clamp the catheter right away.
- If there is not a clamp, bend and pinch the catheter so it is folded.
- Keep the fold in place with a rubber band or tape.
- Go to your nearest hospital Emergency Department to have the catheter repaired or removed.

### If the catheter is accidentally pulled out

- If the catheter pulls out only a little, call your home care nursing agency.
- If the catheter pulls out all the way, apply pressure over the skin area where the catheter was located.
- Go to your nearest hospital Emergency Department. (Bring the catheter.)
- Call 911 if you have shortness of breath or chest pain.

### If the cap at the end of the catheter comes off and blood comes out

- If there is a clamp, clamp the catheter.
- If there is no clamp, pinch the catheter or fold it to stop the blood flow.
- Clean the end of the catheter with an alcohol wipe.
- Screw a new cap onto the end of the catheter.
- Unfold the catheter.
- Flush the catheter in the usual manner.
- Call your home care nursing agency.

## Other Information

### Activity

- Work, exercise and sexual activity can be done if allowed by your medical condition or as instructed by your home care nursing agency. Tape the catheter in place and make sure it is not pulled during activity.
- Ask your home care nursing agency if you can swim or go in hot tubs. You may not be able to do either if you are at risk for infection. Remember, the dressing and catheter cannot get wet.

### Catheter site

- Call your home care nursing agency right away if the dressing gets wet or becomes loose, or if you have skin irritation.
- Look at the skin where the catheter comes out every day. Call your home care nursing agency if there is any new redness, swelling, drainage or pain.
- Avoid wearing clothing or fabric that may rub or catch on the catheter.
- Tape the catheter to your skin to prevent it from being pulled.

### Stitches

- In some cases, the stitches (or sutures) are removed 2 to 4 weeks after the IV catheter is inserted. Ask your home care nursing agency if the stitches should be removed.

### Identification card

- Always carry your card that identifies the type of catheter you have.

Call your home care nursing agency if you have any questions or concerns.



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