

### What is the purpose of this procedure?

A peripheral nerve catheter is used to deliver numbing medicine (local anesthetic) to a nerve or group of nerves over a period of several days. Sometimes the catheter can stay in place for 1 to 2 weeks depending on the situation. Most often it is used in the arms or legs to manage pain due to complex regional pain syndrome (CRPS), painful nerves, or past surgeries/trauma. A catheter is a soft, flexible, plastic tube about the size of angel hair pasta that is inserted and left under the skin close to the nerves being treated. Once in place, it is rarely felt.

## How does the catheter work?

The catheter is attached to a preprogrammed portable pump that you can carry around with you. The pump is set to give you the appropriate amount of medication. After the catheter is placed, most people have some amount of immediate pain relief. Medication is then given continuously through the catheter so pain relief is continuous while it is in place.

Having a peripheral nerve catheter can reduce pain, allow easier participation with physical therapy, and reduce the amount of oral pain medication you need. Once the catheter is stopped, it may take several hours for sensation in the limb to return to normal. Some people experience a reduction of pain even after the numbing medicine has worn off.

## What are the risks associated with this procedure?

The risks are infrequent. They include:

- Allergic reaction to medication
- Nerve damage

- Medication toxicity
- Bleeding and bruising at the injection site
- Infection
- Injection of medication into a vessel
- No improvement or worsening of your pain in some cases

A more common complication is that the catheter moves or kinks after it is placed. If this happens, medication cannot be delivered to the target nerves, and the catheter may need to be removed.

It is also common to feel numbness and weakness in the area being treated. As a result, it is possible to accidentally injure yourself without realizing it. Be careful to protect the treated limb or body part.

## How should I prepare for the procedure?

- You must have a driver with you at the time of check in and check out. Your driver must accompany you to the clinic for your procedure. You can be discharged only to the care of a responsible adult driver 18 or older.
- Do not eat within 6 hours before the procedure. Small amounts of clear liquids are ok up to 2 hours before the procedure. If have diabetes, discuss an eating and medication schedule with your doctor.
- You may need to stop taking certain medications several days before the procedure. Please remind the doctor of all prescription and over-the-counter medications you take, including herbal and vitamin supplements. The doctor will tell you if and when you need to discontinue the medications.
- Tell the doctor if you develop a cold, fever, or flu symptoms before your scheduled appointment, or if you have started taking antibiotics for an infection.

## What will happen during the procedure?

The procedure is performed on an outpatient basis with an ultrasound machine.

- 1. An IV may be started in the pre-procedure area for fluid and sedation.
- 2. You will be taken back to the procedure area and connected to monitoring equipment (EKG monitor, blood pressure cuff, and blood oxygen monitoring device).
- 3. The skin over the target nerves will be cleansed with antiseptic and ultrasound gel will be applied so the doctor can scan for the nerves.
- 4. When the doctor finds the nerves, numbing medicine will be injected into your skin. This will cause a burning sensation for a few seconds.
- 5. The doctor will direct a small needle toward the nerve. Once it is correctly positioned the catheter will be placed and the needle is removed. This leaves only the soft, flexible catheter.
- 6. Some numbing medicine may be delivered through the catheter at this time. A dressing will then be placed to secure the catheter.

# What should I expect after the procedure?

You will be in the recovery area for 20-30 minutes after the procedure. A Home Care Nurse will come to connect the catheter to the pump that gives the medication. They will also teach you how to use it. You may feel some immediate relief from numbing medicine that was injected while the catheter was placed.

The catheter can cause numbness and weakness in the area or limb being treated. Because of this you may be at risk of accidentally injuring yourself. You may have to wear a sling or brace, or use crutches or another assistive device while the catheter is in place.

• Be careful when around heat, pressure, chemicals, or other dangerous objects.

- You must also be careful when trying to use a limb with a catheter in place. The muscles will not likely respond as normal.
- You may be at risk for falling or dropping objects. Do not try to bear weight on a treated leg or use a treated arm to support yourself.

#### What if the catheter has stopped working?

If the catheter seems to stop working and your pain intensifies, check the tubing for closed clamps or kinks. Also check if there is fluid in the pump. If no problem is found, please call the Home Care Nurse or the clinic.

#### What is the contact information?

Contact the clinic at: (734) 615-7246

## How do I take care of the catheter?

- Keep the dressing over the catheter clean and dry. It is normal to have some amount of clear or slightly pink tinged drainage under the dressing. This is not a concern as long as your pain is under control.
- The catheter is usually not stitched in place. The dressing will hold it. Because of this, please do not try to change the dressing. If necessary, you can apply extra tape to hold it in place.
- Do not take a shower under direct water or soak in a tub while the catheter is in place. Sponge bathing is ok.

If you would like further information including videos of procedures, please visit our website: http://www.umpain.com/

Disclaimer: This document contains information and/or instructional materials developed by Michigan Medicine for the typical patient with your condition. It may include links to online content that was not created by Michigan Medicine and for which Michigan Medicine does not assume responsibility. It does not replace medical advice from your health care provider because your experience may differ from that of the typical patient. Talk to your health care provider if you have any questions about this document, your condition or your treatment plan.

Patient Education by <u>Michigan Medicine</u> is licensed under a <u>Creative Commons Attribution</u> <u>NonCommercial-ShareAlike 3.0 Unported License</u>. Last Revised: 08/2018