

## ***Occipital Nerve Block***

### **Introduction**

Some people have pain in the neck and back of the head. An occipital nerve block is an injection of a numbing medicine. This procedure can help your health care provider diagnose the source of your pain. In many cases, it can also treat the pain.

If your health care provider recommends an occipital nerve block, the decision to have the procedure is yours.

This reference summary explains occipital nerve block. It discusses the benefits and risks of the procedure. It will also help you to understand what happens before, during and after the procedure.



### **Anatomy**

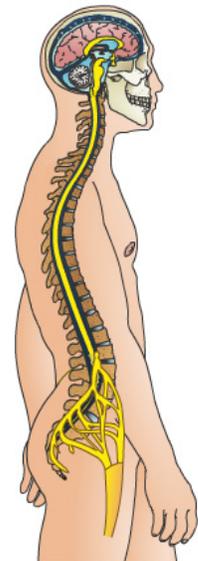
The spine protects the spinal cord and nerves that go to different parts of the body.

The spine is formed of solid vertebrae.

The vertebrae are separated by softer disks.

Nerves travel through the spine. They branch out to send messages from the brain to other parts of the body.

Occipital nerves are spinal nerves. They start out in the top of the spine and go to the back of the head.



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## Occipital Nerve Block

An occipital nerve block is an injection of numbing medication around the occipital nerves. It is called a block because it numbs the nerve and blocks its sensations.

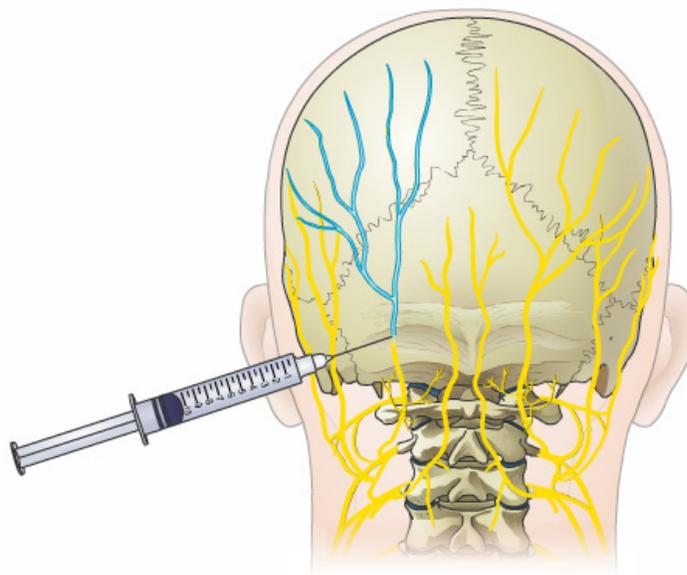
An occipital nerve block may be used to diagnose the cause of pain in the:

- Neck.
- Scalp.
- Near the ear.

The aim of an occipital nerve block is to numb the occipital nerves. This will help lessen or stop pain if the pain is caused by inflammation and swelling of tissue around the nerves. An occipital nerve block may also treat tension and migraine headaches that happen across the top of the head.

The numbing medication may be injected around the occipital nerves on the back of the head, depending on where your pain is located. A needle is used to deliver the medication. The needle is placed with the help of an x-ray machine.

Contrast dye may be injected before the numbing medication. This makes the radiological images clearer. It helps your health care provider make sure the needle is in the right place.



A combination of medications is used for the injection.

1. The first is a numbing medication. It stops pain to help diagnose its source.
2. The second is a steroid. It decreases swelling around the nerve for long-lasting pain relief.

Your pain should disappear shortly after the injection if the occipital nerves were the cause of pain. If the pain does not stop after the injection, then the pain is not from the occipital nerves. The pain may disappear after the injection for a few hours. But it may come back again after the numbing medication weakens.

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If a steroid medication was also injected, it will decrease the swelling and reduce the pain over the next few days. This usually means the occipital nerve block will have a long-lasting effect.

In some cases, the pain may come back after a few hours and not get better. If this happens, you may need a more permanent treatment option, called radiofrequency neurotomy. Radiofrequency neurotomy uses an electric current that runs through a needle to burn the occipital nerves. The electric current applies heat to the nerves. This causes a lesion to form. The lesion interrupts the pain signals. This pain relief can last for a year or more.

### **Preparing for the Procedure**

Make sure to tell your health care provider about all of the medications you are currently taking. This includes over-the-counter and prescription medications, as well as supplements and vitamins. Certain medications may need to be stopped before the procedure.



You may be told not to eat or drink anything after midnight the night before the procedure. But a small amount of water may be used to take your medications in the morning.

Before the injection, the skin is disinfected and numbed with local anesthesia. This is so that you will not feel the pain of the occipital nerve block. An x-ray machine will be used to guide the placement of the needle. Dye may also be used. The dye can confirm the correct placement of the needle before the medication is injected. If the needle is correctly placed over the occipital nerves, the medication is injected. This is usually not painful. But it may be uncomfortable.

After the injection, the needle is taken out. The procedure is over. The injection only takes a few minutes. But the procedure will take about an hour. You may have somebody with you to drive you home after the procedure. You will not be able to drive yourself because of the anesthesia. You can usually return to normal activities the next day.

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## Risks and Complications

This procedure is very safe. But there are several possible risks and complications. These are unlikely but possible. You need to know about them just in case they happen. By being informed you may be able to help your health care provider detect complications early.

In very rare cases, infections may happen. It is important to tell your health care provider if your pain gets worse or you have a fever.

Rarely, patients may have allergic reactions to the medications used in this procedure. An allergic reaction could be severe. It may lead to death. Before the procedure, tell your health care provider about allergies you may have to medications.

Bleeding may happen, particularly if you have used any blood thinners, such as Advil<sup>®</sup> or aspirin. This type of medication may have to be stopped for a few days to decrease the risk of internal bleeding.



Rarely, other nerves around the spine may be injured. This could lead to:

- Weakness.
- Paralysis.
- Bladder or bowel problems.
- Sexual dysfunction.

Steroid use could increase:

- Blood sugar in diabetic patients.
- Heart rate.
- Blood pressure.



X-rays are used during this procedure. The amount of radiation used is safe. But this same amount could be dangerous for unborn children. Tell your health care provider if you are pregnant or may be pregnant before the procedure. The drugs used during this procedure also may not be safe for an unborn child. It is important to make sure you are not pregnant prior to this procedure. Before the procedure is performed, be sure to tell your health care provider if there is any chance that you may be pregnant.

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It is possible that an occipital nerve block will not relieve the pain. In rare cases, it may even make the pain worse if nerves are damaged.

### **After the Procedure**

After the procedure, you will be watched in the recovery area for 30 minutes to an hour. This is to make sure no serious complications happen. After this time, you will need to have someone drive you home.

Your pain may be gone or lessened right after the procedure. It may take three to five days before the steroid starts to work. The steroids can relieve pain for several days to a few months.

If the first injection does not relieve your pain in a week or two weeks, you may need a second injection. If your symptoms return, you may need more injections.



You may notice numbness, soreness or an odd feeling in the area where the injection was done. For the rest of the day, you shouldn't shower or soak in water. Avoid using heat on the injection site. You may use an ice pack to reduce swelling or soreness. You should rest for a day or two after the procedure. Do activities you can tolerate, but rest more than you usually do. You may feel sore. If dye was used during the procedure, you may be told to drink lots of water. This will help remove the dye from your body.

Report any pain you experience during the next few days to your health care provider. You should avoid taking any pain medications for at least six hours after the procedure to know if the occipital nerve block worked.

Call your health care provider right away if you experience:

- A fever.
- New arm or leg numbness or weakness.
- Severe arm pain.



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Call your health care provider right away if you have any signs of infection at the injection site. Signs of infection at the injection site include:

- Discharge.
- Heat.
- Redness.
- Swelling.

## Summary

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If your health care provider recommends an occipital nerve block, the decision to have the procedure is yours. The procedure is very safe. But there are several possible risks and complications. By being informed you may be able to help your health care provider detect complications early.

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