

Pacific Coast Spine Institute and Pain Center

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Phone (714) 847-3666 Fax (714) 847-7171

Occipital Nerve Block

A safe, relatively simple and temporary procedure, occipital nerve blocks are performed at Pacific Coast Spine Institute and Pain Center to help diagnose and treat certain kinds of head pain.



What is an occipital nerve block?

Touch, pain, or temperature sensations in the scalp must be conveyed to the brain in order for us to "feel" them. Several nerves accomplish this purpose, and the greater occipital nerve is one of the more important ones. There are two greater occipital nerves, on each side of the head. Emerging from between bones of the spine in the upper neck, the two occipital nerves make their way through muscles at the back of the head and into the scalp, supplying feeling (including pain) to a good portion of the back and top of the head. They sometimes reach nearly as far forward as the forehead, but do not cover the face or the area near the ears; other nerves supply the feeling to these regions. Sometimes, even though they don't reach the front of the head, through a mechanism called "referred pain," irritation of one of the occipital nerves can be also be felt near the eye on the same side.

Like many other nerves, the greater occipital nerves can be "blocked"-made numb with an injection of medication-to relieve pain.

Why do I need one?

The best candidates for greater occipital nerve block are those patients with one-sided head pain that occurs predominately at the back of the head. Patients with the "nerve-like" shooting, zapping, stinging, or burning pain of occipital neuralgia generally respond best. We have also had some degree of temporary success for patients with migraines, cluster headaches, and a variety of other painful conditions, particularly when the scalp becomes tender, indicating that the nerve is inflamed.

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How do I prepare?

- Do not eat or drink anything for (6) six hours prior to the procedure.
- Plan on spending roughly one to two hours at the surgery center. This allows for time for registration, preparation, performance of the procedure and observation after the procedure.
- Some patients choose to have conscious sedation which makes the procedure easy to tolerate. The amount of sedation given generally depends upon the patient tolerance. If you choose to have sedation of any kind, you are required to have a responsible adult driver accompany you to the procedure. If you feel that you require sedation, please discuss it with your physician.
- If you are allergic to specific local anesthetics or ionic contrast, please notify your physician. Also, if you are taking any blood thinners (Coumadin, Plavix, Warfarin, Lovenox, Aspirin, etc.) please let your physician know ahead of time to help devise a safe plan for the injection.

What happens on the day of my procedure?

You will be asked to lie down on an examination table. The scalp at the back of the head will be cleaned with alcohol, and your provider will locate the site of the nerve feel (it is often quite tender). Using a thin needle, about a teaspoonful of a mixture of local anesthetic and steroids are injected into the scalp in the area of the "trunk" of the nerve. If the injection has been properly located, the scalp on the injected side will quickly go numb, often relieving pain within minutes. You will be asked to note how this numbness affects your symptoms. A more permanent procedure on the nerve would be expected to have a similar effect. This numbness will wear off over several hours. If there is a significant amount of inflammation present, the steroids may begin to work in the next few days to help bring your pain under control for longer, sometimes weeks or months.

What happens after my procedure?

For patients achieving good results with these temporary nerve blocks, there are a variety of other more permanent pain-relieving procedures that can be performed by our surgeons or Anesthesia Pain Clinic, including cutting the nerve, decompressing the nerve, or damaging it with small doses of a toxin or with a radio-frequency energy probe.

An occipital nerve stimulator (basically a nerve pacemaker) can also be helpful. If you do well with the temporary blocks, your provider will discuss the pros and cons of these options with you.

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Are there any complications from the procedure?

Complications of greater occipital nerve blocks are very rare and almost never serious. Bleeding, infection, pain, and allergic or other adverse reaction to the anesthetic or steroid are possible. A few patients briefly feel faint. Sometimes a small area of the scalp at the site of the injection will thin out and lose hair. The needle stays outside the skull, so there is no chance of a spinal fluid leak, meningitis, or brain or spinal cord injury. The nerve does not connect to any muscles, so weakness or change in facial expression will not occur.