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What is the epidural space and why is a selective epidural helpful?

The covering over the nerves in the spine is called the dura. The sleeve-like space surrounding the dura is called the epidural space. Nerves travel through the epidural space and out of the spine through small nerve “holes” before traveling into your arms, chest or legs. Inflammation of these nerves from a damaged disc or from contact with a bone spur, may cause pain in your arms, chest or legs.

A selective epidural injection places anti-inflammatory medicine (cortisone) over the spinal nerve in the epidural space to reduce inflammation, and hopefully reduce your pain. By stopping or limiting nerve inflammation, the epidural injection may promote healing and speed up “mother nature”. Although not always helpful, epidural injections reduce pain and improve function in most people within 3-7 days. They may provide permanent relief or provide a period of pain relief that will allow other treatments like physical therapy to be more effective.

A selective epidural injection also provides diagnostic information. If the nerve injected becomes numb after the procedure, and that nerve is the reason for your pain, you will feel immediately better. This helps to prove that the nerve we injected is the source of your pain. This helps in guiding future treatment options including any future surgical interventions.

Your doctor may order up to three epidural injections spaced approximately 2-4 weeks apart. Performing a repeat injection depends on your response to the prior injection. If you obtain excellent relief from an epidural, you do not need to have it repeated. If you have partial sustained benefit (>35% relief) the epidural can be repeated for possible additive benefit. If an epidural injection provides minimal benefit (<35% relief), the physician may choose another injection be performed with a change in the technique and/or cortisone used.

What will happen to me during the procedure?

First, an IV is started so that you may receive medicine for relaxation if you so desire. Next, while lying on a x-ray table your skin will be cleansed with an antiseptic. The physician will numb a small area of skin where the epidural needle will be inserted. Next, the physician will use x-ray guidance to direct a small needle next to the spinal nerve as it leaves the spine. He will then inject contrast dye to confirm that the medicine spreads to the affected nerve(s) and into the epidural space where the inflammation resides. After this, the physician will inject a combination of numbing medicine (anesthetic) and time released anti-inflammatory (cortisone).

What should I do and expect after the procedure?

You may have some partial numbness in your arm, chest or leg from the anesthetic after the injection. This may last several hours but you will be able to function safely as long as you take precautions. You may or may not obtain improvement in the first few hours after the injection, depending upon if the nerve that was injected was your main pain source. You will report your remaining pain (if any) and also record the relief you experience over the next week in a “pain diary” which we will provide. Mail or fax the completed pain diary in the envelope provided so that your treating physician can be informed of your results and plan future tests and/or treatment if needed. You may take your regular medicines after the procedure, but try to limit your pain medicines the first 4-6 hours after the procedure so that the diagnostic information obtained from the procedure is accurate. You may notice an increase in your pain lasting for several days. This occurs after the numbing medicine wears off but before the cortisone has a chance to work. Ice will typically be more helpful than heat during this time. You may begin to notice an improvement in your pain 1-5 days after the injection. Improvements will generally occur within 10 days after the injection.

On the day of the injection, you should not drive and should avoid any strenuous activities. On the day after the procedure, you may return to your regular activities. When your pain has improved, start your regular exercise/activities in moderation. Even if you are significantly improved, gradually increase your activities over 1-2 weeks to avoid recurrence of your pain.