

Cordotomy: what kind of pain does it treat and how does it work?

Percutaneous cordotomy is a minimally-invasive, often outpatient procedure for pain on one or both sides of the body. It does not work for pain in the midline (down the center), such as in the back or abdomen. It can help with pain in places such as the shoulder, chest, flank, hip or leg. It is most often used for cancer pain but can be used in other cases under certain circumstances.

Cordotomy works by interrupting the fibers in the spinal cord that carry pain information. While these fibers also carry termperature sensation, turning them off does not interfere with other sensation (such as normal touch) or movement.







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Percutaneous Cordotomy





TREATMENT OPTIONS, DIAGNOSIS-BASED, ALWAYS, WITHOUT FAIL, WITH THE PATIENT AT THE CENTER







CT scan during procedure

The spinal cord is in the center and dark compared to the light myelogram dye around it. The needle is coming in



from the left with the probe entering the spinal cord through it.



"The pain was excruciating, I couldn't live through it. I couldn't breath. I couldn't sleep. I couldn't eat. I don't remember the procedure but the pain was gone! I could breath again."

— Michael M.

OUTCOME AND RISKS

Cordotomy is a very safe procedure and has a low incidence of complications but no procedure is completely safe.

More than 90% of patients enjoy significant pain relief with cordotomy, with many reporting complete relief of the targeted pain. Unfortunately, such pain relief cannot be guaranteed.

Complications are rare

but can occur. Changes in feeling hot/cold are frequent because the same fibers transmit pain. The procedure requires placing a probe in the spinal cord, so any kind of spinal cord injury is possible, including possible paralysis or problems feeling or walking. In addition, problem like infection or spinal fluid leakage are possible. Rarely, there can be a "mirror" pain on the other side.

THE PROCEDURE

Percutaneous cordotomy is usually performed as an outpatient. Prior to the procedure, the radiologist will perform a spinal tap and inject some dye into the spinal fluid to help see the spinal cord (a myelogram).

The patient is then brought to the CT scanner. The anesthesiologist will use pain medicine to help with comfort and mild sedation. An area under the ear **opposite the pain** is injected with local anesthetic and a small spinal needle is inserted next to the spinal cord. An even smaller probe is placed through it into the spinal cord itself. Nonpainful stimulation is used



to confirm the right positioning, which is why the patient needs to be awake for this part. The pain fibers are "shut off" using a brief pulse of heat.

The procedure itself usually takes 20-40 minutes and, after a few hours of observation, the patient can go home. "The pain was so severe, I kept praying I would passout. The medications made me out of it all the time. The procedure was easy. I was laying on the table, I heard this sound in my head—and the pain was gone! Completely!"

- Steve L.

"It is easier to find men who will volunteer to die, than to find those who are willing to endure pain." JUIUS CAESER

JUIUS CAESER

WHAT IS CORDOTOMY?

Percutaneous cordotomy is a minimally-invasive, often outpatient procedure for pain on one or both sides of the body. It does not work for pain in the midline (down the center). During the procedure, a tiny probe is used to shut off the pain fibers in the spinal cord.

WHAT KIND OF PAIN DOES CORDOTOMY HELP?

Cordotomy can help with pain in places such as the shoulder, chest, flank, hip or leg. It does not help pain that is in the middle of the back or abdomen. It is most often used for cancer pain but can be used in other cases under certain circumstances.