Superior Hypogastric Plexus Block

This outpatient, low risk injection is designed to reduce pelvic pain that may be originating from any number of conditions, even those that are unknown. This may include pain coming from the pelvis, testicles, prostate, ovaries, uterus, lower intestines, bladder and more.

What is the superior hypogastric plexus?

A plexus refers to a bundle of nerves. The superior hypogastric plexus is located in the area where the lumbar spine meets up with the sacrum, in front of the spinal column.
Basically, the plexus is located in front of where L5 meets S1. This bundle of nerves provides sensation to a significant amount of structures in the pelvis. So an injection that “blocks” its ability to provide that sensation may offer pain relief.

**Who benefits from these injections?**

Hypogastric plexus blocks may help people with all types of pelvic pain, which is what makes them so useful. With chronic pelvic pain, patients often need to take narcotic medications. This can lead to problems with tolerance, addiction and constipation. What one finds is that both females and males can benefit from these injections.

Here is a list of conditions that may benefit from hypogastric blocks:

- Gynecological related pain – endometriosis, pelvic inflammatory disease (PID), other types of chronic inflammation.
- Post Surgical pelvic or lower abdominal adhesions
- Irritable Bowel Syndrome
- Interstitial Cystitis
- Post Surgical Pain after prostatectomy or other pelvic region surgery
- Pain from ovarian cysts and testicular related pain (e.g. post epididymitis)

**How is the injection performed?**

For hypogastric plexus blocks, patients lay prone on their abdomen. The injection is performed as an outpatient, and IV sedation is not mandatory. For those with anxiety, claustraphobia, etc, it can help relax the person.

The pain management doctor will use image guidance for the procedure, as there are some significant vessels near the area to be avoided. Most of the time the pain doctor will use a 2 needle approach, so both sides of the plexus may be blocked.

Once the plexus area is reached, the pain doctor will inject contrast medicine to ensure satisfactory placement. If confirmed okay, then numbing medicine will be injected. Along with this, phenol and/or steroid medication may be included as well to provide longer lasting pain relief. Phenol is a form of alcohol that can deaden the plexus nerves for months to over a year at a time. Pulsed radiofrequency ablation is becoming a more common treatment to block the plexus for long term relief as well. Your pain doctor will discuss the specific method to be used. The procedure
takes approximately 30 to 45 minutes, after which patients are monitored for an hour or so for stable vital signs and to make sure an allergic reaction does not ensue.

**How well do they work?**

![Pelvic Inflammatory Disease](image)

Hypogastric plexus blocks often work well for PID pain.

Overall, superior hypogastric plexus blocks have produced encouraging results. Studies have shown patients are able to decrease narcotic needs by approximately 40% and achieve a 50% decrease in pain for over a month (Schmidt et al, Rev Bras Anestesiol 2005). The pain relief may last months to years, and when it wears off the block may be repeated. If the block worked well initially, the expectation with subsequent injections should be equivalent results. The overall success rate with superior hypogastric blocks is seventy percent (de Leon-Casasola et al, Pain 1992).

**What are the risks?**

The risks with plexus blocks are fairly low, but should not be ignored. There is a risk of an allergic reaction to medications used, nerve injury, or bleeding. There are very large vessels in this area. If a person is on blood thinners, these should be ceased 5 to 7 days prior to the injection. Your pain management doctor will tell you specifically when. There is also a risk that the procedure will not work for pain relief. Your pain doctor will discuss procedure risks prior to the injection.

**What’s the bottom line?**

Overall, hypogastric plexus blocks represent an excellent method of relieving pelvic pain that is not amenable to a surgical procedure. A lot of women who have pelvic pain and undergo a hysterectomy still end up with pain afterwards, and IBD or PID acts up chronically. The procedure has such broad applications that achieving an average of 50-70% pain relief is very, very good. Especially considering it is an outpatient, low risk procedure.