



Genicular (Knee) Nerve Blocks and Rhizotomy

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What is it?

The Genicular nerves are 3 small nerves that carry sensation from the knee joint. In patients suffering from knee pain (e.g. caused by arthritis), blocking these nerves can lead to pain relief for weeks to months. If these nerves are ablated using heating or cooling treatments (rhizotomies) this relief can last up to 6 months or more.



INNERVATION OF THE KNEE COMES FROM MULTIPLE NERVES 7

Who is it suitable for?

This treatment can be useful for patients who are suffering from chronic knee pain. This is most commonly due to osteoarthritis. It is often considered for people who want to avoid knee surgery, or are unable for to have knee surgery for other reasons. Occasionally patients can have persisting knee pain after surgery, and they may also benefit from this procedure.

How is it done?

At PainScience this procedure is done in an operating theatre, with the use of an X-Ray machine, to allow the Specialist to guide the needles to the appropriate area. Sedation will be provided by an Anaesthetist, so that you will be sleepy while the procedure is happening.

Genicular Nerve Blocks

3 needles (one for each nerve) are placed around the knee joint, and multiple X-Ray images are taken to ensure proper needle placement. Once this is done, a small amount of local anaesthetic, mixed with cortisone, is injected into the needles.

Pulsed Radiofrequency Treatment

This is done in a similar way to the nerve blocks, but before the local anaesthetic and steroid are injected, a strong electromagnetic current is produced at the tip of the needle. This "stuns" the nerve, and may reduce pain for months. This is a very low risk procedure, with risks similar to the nerve blocks.

Thermal Rhizotomy Treatment

This is done in a similar fashion to the Pulsed Radiofrequency Treatment, the main difference is that the tip of the needle is heated, up to 90 degrees, to burn the nerve. This can produce 6 months or more of pain relief.

Cryorhizotomy Treatment

Similar to the Thermal Rhizotomy, but a slightly different needle is used. A probe is then inserted, and with the use of carbon dioxide gas, an "ice ball" is formed at the tip of the needle, which destroys the nerve. This can again provide prolonged pain relief. Cryotherapy uses a larger needle than the other procedures so there is more likelihood of producing bruising.

What are the risks?

- In general this is a very safe procedure.
- The most common risk is that it may not work, or only work for a few days.
- Occasionally people can have a temporary reaction to the cortisone for a few days (feeling moody or high, trouble sleeping, dizziness).
- There is a small risk of minor bleeding, bruising, and very rarely infection.
- There is a very small risk of damage to surrounding nerves from the needles.
- Sometimes there can be a shortlived flare of pain following a rhizotomy, which can be treated with medications.





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