

Patient Information: Lumbar Rhizotomy (Facet medial branch neurotomy)

WHAT IS IT?

Lumbar rhizotomy (also called facet medial branch neurotomy) is a procedure to treat back pain. It involves placing needles in the back under x ray guidance to burn the small nerves that supply the facet joints in the lower back. This takes away the pain from these joints. It is a common pain procedure which has been well studied.

WHAT IS FACET JOINT PAIN?

The facet joints are the small joints that connect the vertebrae in the back (see picture below). These joints can get arthritis in them leading to back pain. Painful facet joints are responsible for 10-20% of all long-term back pain, and up to 40% of back pain in those aged over 65 years.

Facet pain is usually a dull, aching pain, worse in the low back. The pain often radiates into the buttocks and thighs. This radiating nature means it is sometimes mistaken for “sciatica”. The pain tends to be worse with activity and lesser at night time. It is more common in older people but can also occur in the young.

WHAT IS DONE BEFORE THE RHIZOTOMY?

Often a “test injection” is done to determine if your pain is coming from the facet joints before the rhizotomy itself is done. This could be a *medial branch block* or a *facet joint injection*. These procedures aim to numb the joint temporarily to see if this is the source of your pain. Medial branch blocks numb the nerve that supplies the joint for around 12 hours. Facet joint injections are less useful at identifying if the joint is the source of your, but the anti-inflammatory steroid that is injected, can settle down pain for weeks to months. These injections are also done in an operating theatre with x-ray guidance and sedation. These injections are simple, low risk procedures.

Sometimes, if you have a “good story” for facet pain, or a previous good response to facet joint injection, your doctor may go direct to a rhizotomy without test injection. The advantages of this include; having only one procedure instead of two, faster pain relief, and it can be more convenient, and not missing anyone



who does not benefit from the test injection but still would have benefitted from the rhizotomy (the test injection does not perfectly detect all patients who might benefit from rhizotomy). The disadvantage is that without the test injection, a patient takes the small risks of the rhizotomy with a lower chance of benefit.

You will need to be fasted on the day of the procedure due to the anaesthetic.

HOW IS THE PROCEDURE DONE?

The procedure is done in an operating theatre, with medication to make you very sleepy but not totally knocked out. You will lie on your front on an x-ray operating table.

Local anaesthetic numbs the back. Needles are inserted into your back and are guided to the correct area using X-ray. The needles are heated to 90 degrees for 1-3 minutes each to burn the nerves (see picture at bottom).

The procedure takes 30-60 minutes, and you will go home the same day.

WHO IS NOT SUITABLE FOR THIS PROCEDURE?

- 1. Patients who are on blood thinning medication (other than aspirin) will need to stop this (in consultation with their doctor) prior to the procedure.**
- 2. Patients who have pacemakers, defibrillators or other implanted medical devices may not be able to have this procedure as the electric current to heat the needles may interfere with them.**

WHAT ARE THE BENEFITS OF THE PROCEDURE?

After a positive medial branch block, between a half and two thirds of patients will get a good response to a rhizotomy. After a "direct" rhizotomy (no test injection) this is closer to one third.

A good response is a 50% or greater reduction in pain. Some people have multiple causes of back pain- (e.g. pain coming from the discs) – and rhizotomy will only help facet joint pain.

Some patients obtain complete relief of pain. Often patients also have an improvement in function – they can walk more easily and do more of their normal activities.

It is important to know that it can take up to 4 weeks for the pain relief from a rhizotomy to "kick in".



The average duration of relief from a rhizotomy is around 1 year. This can range from 3 months to over 2 years. The procedure can be safely repeated many times afterwards in the setting of a good result.

WHAT ARE THE RISKS OF THE PROCEDURE?

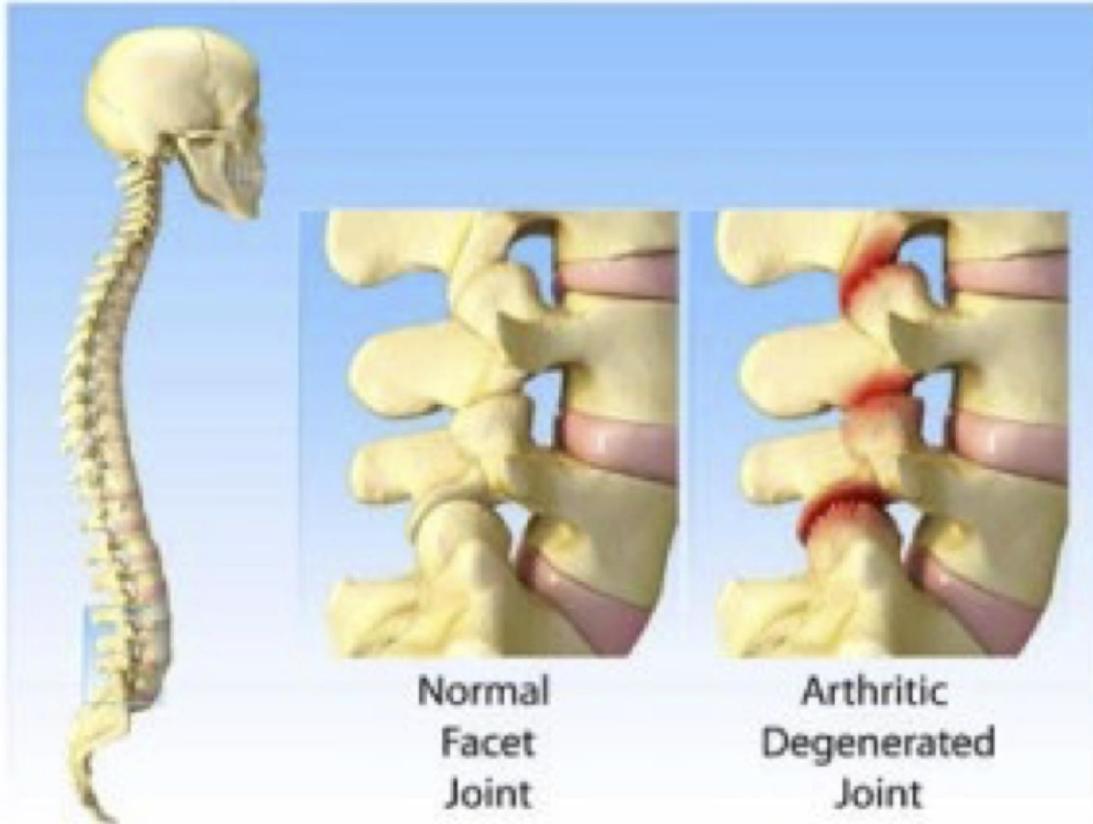
The common risks are:

1. The procedure may not help: Rhizotomy does not help in 1/3 to 2/3 of people, depending on if medial branch block is done or not.
2. **Temporary increase in pain: Most people have a flare of pain after the procedure, usually for only a few days but this may last 1-2 weeks.** On rare occasions this may last up to 12 weeks. Increased pain longer than this is extremely rare.

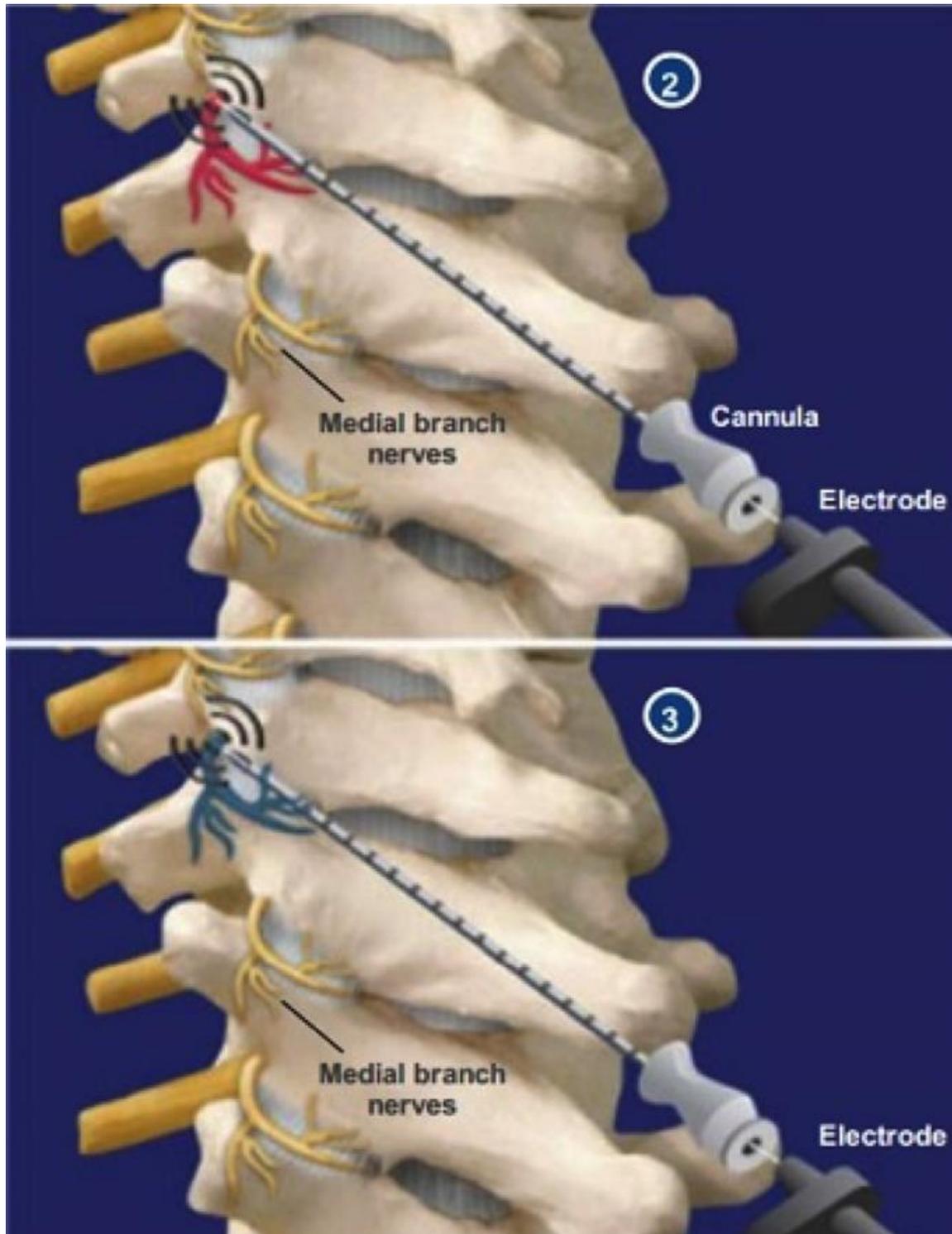
The rare risks are:

1. Damage to the nerves to the legs: This is a very rare complication (less than one in 10,000). This could result in a painful, numb or weak leg which on rare occasions can last a long time (weeks to months). Permanent nerve damage is also possible (although even more rare).
2. Damage to the spinal cord: This is extremely rare.
3. Headache
4. Dangerous bleeding around the spinal cord: Very rare
5. Infection: This is very rare
6. Complications of the anaesthetic – such as breathing problems or pneumonia

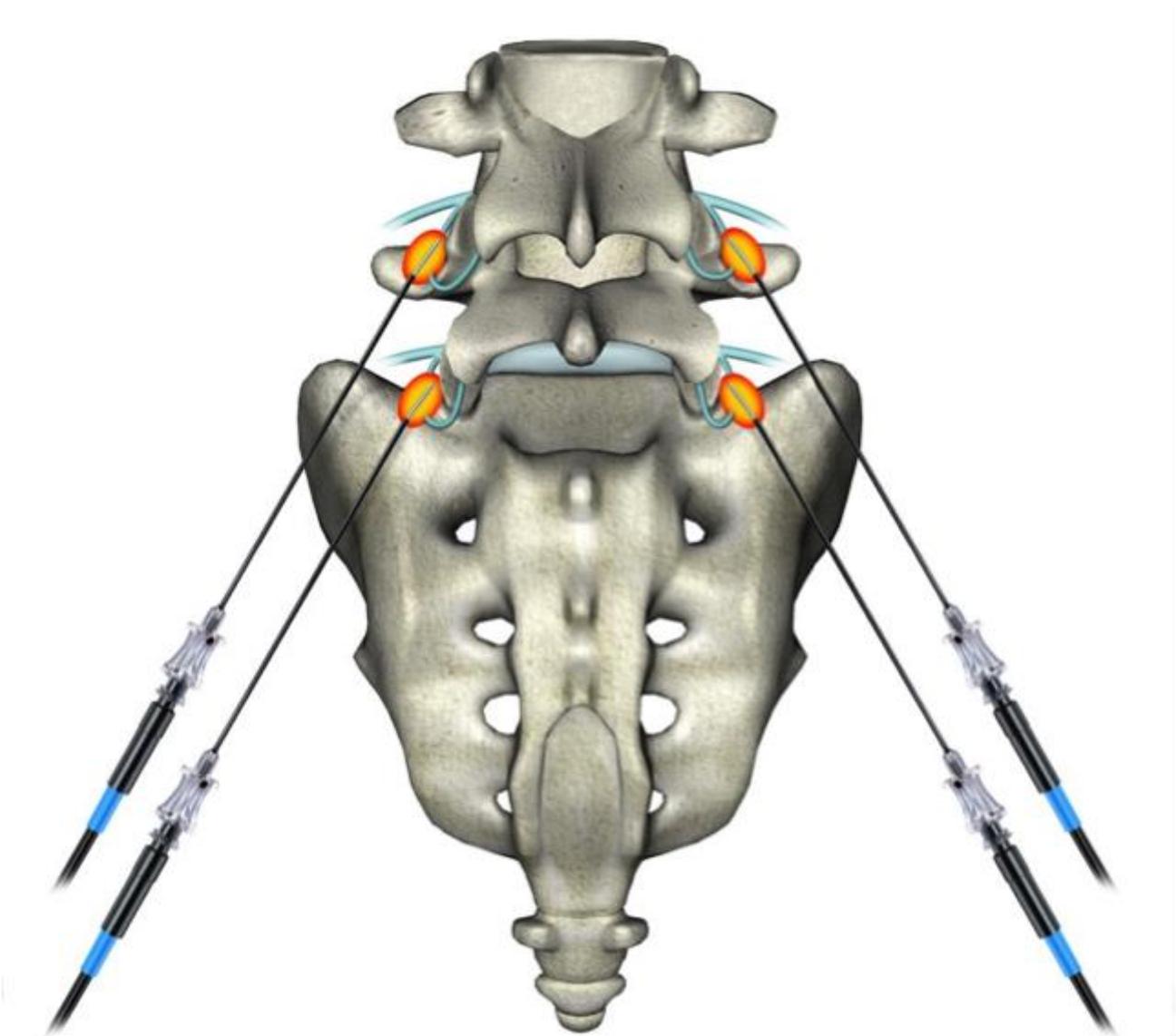
Diagram of the Facet Joints



The Median Branch Nerves



Where do the rhizotomy needles go?



Needles are inserted through the skin to burn the small facet nerves.