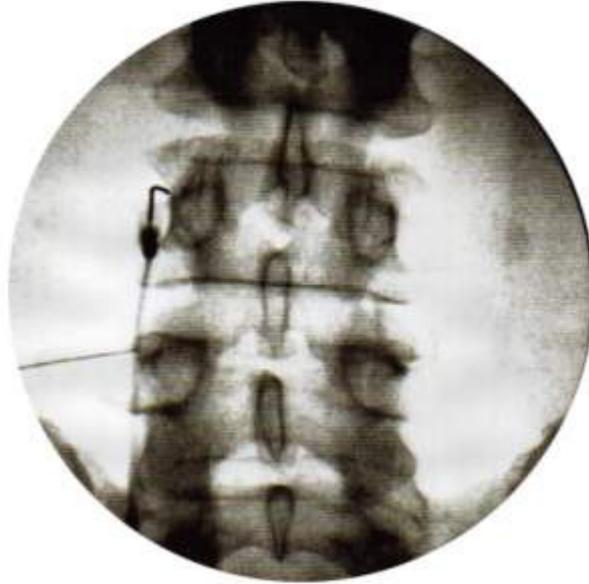


# RADIOFREQUENCY LESIONING - PATIENT INFORMATION LEAFLET



## WHAT IS A RADIO FREQUENCY LESIONING?

Radio Frequency Lesioning is a procedure using a specialized computer controlled machine to interrupt conduction on a semi-permanent basis. The nerves are usually blocked for 9-12 months (can be as short as 6 months or as long as 18 months).

RF lesioning is used when other conservative therapies such as exercise, bed rest, or medications other than narcotics, have failed.

Treatments that are usually undertaken with the use of RF lesioning include, but are not limited to:

- Facet denervation (Headaches, neck pains, and upper or lower back pain)
- Sacroiliac Joint denervation (Hip Pain)
- Sympathetic blocks (upper or lower extremity pains)
- Dorsal Root Ganglion lesions (pain of spinal origin)
- RF disc procedures (Headaches, neck pains, and upper or lower back pain)
- Peripheral nerves (Neuralgias, Joint pains)
- Trigeminal nerve ( Trigeminal neuralgia)

Each of these procedures may be done at various levels since there is a great deal of segmental overlap in nerve conduction to these structures.

## WHAT ARE THE BENEFITS OF RADIOFREQUENCY LESIONING?

The procedure disrupts nerve conduction (such as conduction of pain signals), and it may in turn reduce pain and other related symptoms. Approximately 70-80% of patients will get good block of the intended nerve. This should help relieve that part of the pain that the blocked nerve controls. Sometimes after a nerve is blocked, it becomes clear that there is pain from the other areas as well.

## HOW LONG DOES THE PROCEDURE TAKE?

Depending upon the areas to be treated, the procedure can take from about twenty minutes to a couple

## DOES THIS REQUIRE THAT I BE HOSPITALIZED?

No. The procedure is performed as day surgery case. Except for a few cases, most patients will be discharged home two hours after the procedure.

## WHERE IS THE PROCEDURE PERFORMED?

The procedure is performed under fluoroscopy (x-ray) guidance in the operating room.

## HOW IS IT ACTUALLY PERFORMED?

Since nerves cannot be seen on x-ray, the needles are positioned using bony landmarks that indicate where nerves usually are. Fluoroscopy (x-ray) is used to identify those bony landmarks. After confirmation of the needle tip position, a special needle tip is inserted and the tissues surrounding the needle tip are then heated. This "numbs" the nerves semi-permanently.

## WILL THE PROCEDURE HURT?

Layers of muscle and soft tissues protect nerves. The procedure involves inserting a needle through skin and through those layers of muscle and soft tissues, so there is some discomfort involved. However, we numb the skin and deeper tissues with a local anaesthetic using a very thin needle prior to inserting the radio frequency needle.

The action of the local anaesthetics should last four to six hours. You might probably then experience more pain than usual for five to six days before it gets any better. This pain is due to the procedure itself.

You may also have pain and discomfort for up to six weeks, until the lesion itself heals.



Inflamed nervous tissue in facet joint



Needles are inserted into treatment area



Radiofrequency current heats surrounding nerve tissue to create lesions



Treated nervous tissue

## WILL I BE "PUT OUT" FOR THIS PROCEDURE?

No. This procedure is done under local anaesthesia. Most of the patients also receive intravenous sedation and analgesia, which makes the procedure easier to tolerate.

The amount of sedation given generally depends upon the patient's tolerance. It is necessary for you to be awake enough to communicate easily during the procedure.

## HOW IS THE PROCEDURE PERFORMED?

It is done either with the patient lying on the stomach when working on the facet joints, low back for lumbar sympathetic nerves, and the neck when lesioning the cervical (neck) area (e.g. Stellate Ganglion). All patients are monitored with EKG, blood pressure cuff, and blood oxygen-monitoring device. The skin on the back is cleaned with antiseptic solution and then the procedure is carried out. X-ray (fluoroscopy) is used to guide the needles.

## WHAT SHOULD I EXPECT AFTER THE PROCEDURE?

Most people will feel an increase in their pain, which could last up to two weeks, after which it should go away gradually. You should continue with pain medications to last until then.

Because of this same reason, you need not be seen in the Pain Clinic until four to six weeks after your RFA lesioning, unless you need to see your pain specialist because of a possible complication or unexpected effect. Local anaesthetics may cause temporary numbness and weakness of the legs or arms, depending on the location of the block. This numbness/weakness may last 4-6 hours (the duration of the local anaesthetic). During this period of numbness, you must be more careful than usual, to prevent any injuries to the extremity. Steroids will begin to work after a few days. On the average, it will take 6-10 days for the swelling to come down to the point where you will be able to feel a difference in terms of the pain.

In summary, you should expect for your pain to get better within 15-20 minutes after the procedure. This numbness should last 4-6 hours, after which, it will wear off. Once it wears off, you may experience more pain than usual until the steroids "kick in". This discomfort is due to the procedure itself. To minimize this, we recommend applying ice (fill a plastic sandwich bag with ice and wrap it on a towel to prevent frostbite) to the area, 15 minutes on and 15 minutes off, the day after the procedure. This will minimize any swelling.

### **WHAT SHOULD I DO AFTER THE PROCEDURE?**

You should have a ride home. We advise the patients to take it easy for a day or so after the procedure. You may want to apply ice to the affected area. Perform the activities as tolerated by you.

### **CAN I GO TO WORK TO WORK THE NEXT DAY?**

You should be able to return to your work the next day. Sometimes soreness at the injection site causes you to be off work for a day or two.

### **HOW LONG WILL THE EFFECTS OF THE PROCEDURE LAST?**

If successful, the effects of the procedure can last from 3-18 months, usually 12 months.

### **HOW MANY PROCEDURES DO I NEED TO HAVE?**

If the first procedure does not relieve your symptoms completely, you may be recommended having a repeat procedure after re-evaluation. Because these are not permanent procedures, they may need to be repeated when the numbness wears off.

### **CAN THE PROCEDURE BE REPEATED WHEN AND IF MY PAIN RETURNS?**

Yes. The effectiveness of subsequent repeat procedures is also variable. Some patients obtain longer duration of pain relief while others obtain shorter duration.

### **WILL THE RADIOFREQUENCY LESIONING HELP ME?**

It is very difficult to predict if the procedure will indeed help you or not. Generally speaking, the patients who have responded to repeated local anaesthetic blocks will have better results.

### **WILL I OBTAIN COMPLETE (100%) PAIN RELIEF?**

Although possible, it is our experience that in 85% of the patients suffering from chronic pain, the cause of the pain is usually multifactorial. Therefore, it is highly unlikely that we will be able to completely address the pain with only one type of therapy.

### **WHAT ARE THE RISKS, SIDE EFFECTS, AND POSSIBLE COMPLICATIONS?**

Generally speaking, this procedure is safe. However, with any procedure there are risks, side effects, and the possibility of complications. The risks and complications are dependent upon the sites that are lesioned. The closer the procedure is to the spine, the more serious the risks.

are. Great care is taken when placing the radiofrequency needles, but sometimes complications can occur.

Possible side effects and complications of RF include, but are not limited to:

PAIN or worsening of symptoms: The needles have to go through skin and soft tissues, which will cause soreness.

INFECTION:

Any time there is an injection through the skin, there is a risk of infection.

This is why sterile conditions are used for these blocks.

BLEEDING:

Bleeding is more common if the patient is taking blood thinners such as aspirin, warfarin etc., or if he/she has some genetic predisposition such as haemophilia.

NERVE DAMAGE: By working so close to the spine, there is always a possibility of nerve damage, which is unusual since the needles are placed using fluoroscopy.

**Chances of any of this occurring are extremely low. By statistics, you have more of a chance of getting killed in a motor vehicle accident driving to the Hospital, than any of the above occurring. Nevertheless, you should be aware that they are possibilities.**

**Incidence of Side Effects and Possible Complications**

**These could occur in approximately 1 (one) in every 5,000 patient that undergo this mode of therapy.**

**WHO SHOULD NOT HAVE THIS PROCEDURE?**

If you are on a blood thinning medication (e.g. Warfarin, Clopidrogel), or if you have an active infection you should not have the procedure. If you are taking any blood thinners, please inform your physician.