# **Radio-frequency Denervation (RFD)**

### What is RFD, and what is it used for?

It is a procedure that involves placing a needle onto small nerves in the back or neck that transmit pain from the facet joints. The nerve is then heated. RFD is used when there is a high degree of suspicion that the facet joints are the cause of pain.

The facet joints can be the sole cause or a contributing cause of the pain you are experiencing. If these joints are the cause, the RFD may produce total pain relief. If they are a contributing cause you will feel somewhat better. If they are not the cause of pain at all, the RFD will make no difference.

### Can he RFD be repeated?

The RFD lasts for about one year on average. If it wears off, and the same pain recurs, it can be repeated. It can be done on multiple occasions. If you consider that the RFD has been successful, lasting for about one year, telephone Sister Kate Young on 8862 4600 to discuss this.

#### What happens to the nerves?

Within the nerve are many small nerve fibres. The pain carrying fibres are among the smallest of them all and at about 80 degrees centigrade these are the fibres most affected. Heating the nerves results in changes to these nerves so that they stop working. The outer sheath of the nerve remains intact, so that eventually the inside part heals and normal sensation returns in about 12 months time.

### How will the RFD help?

Constant pain results in protective muscle spasms and prolonged inactivity results in thinning and weakness of the muscles. Eliminating the pain, allows for exercise to restore normal mobility and strength to the back. This encourages return to normal activities and work. The recovery of back function may diminish the need for a repeat procedure or other treatment.

RDF does not touch the nerves that supply the muscles in the leg or arm. Thus, RFD cannot cause weakness or paralysis in the legs or arms.

#### How do I know if the RFD has worked?

It takes up to 2 months for the effects to be properly evaluated. However, most people will have a good idea in 1 to 2 weeks. If the pain is quite bad soon after the RFD, it generally takes longer to know if it has worked.

#### Does it hurt after the RFD?

The post-procedure soreness is extremely variable, and in rare circumstances can last for up to 2 months. However, in general, it is eased in a few days. Even if pain is prominent after the RFD you should resume normal activities rapidly. In neck RFD's a burning or tingling pain (neuralgia) can occur, and in rare circumstances this can last for up to six weeks.

#### Are there any side-effects?

The procedure is performed under x-ray control and is precise. The needles are a long way from the spinal cord so this will not be damaged. Major blood vessels and nerves are also in front of the needle, and should not be damaged or affected.

- Allergic reaction to the anaesthetic is possible but rare. Invariably the anaesthetic has already been used in previous injections to diagnose the condition.
- Bleeding and bruising are possible, but the effects are minimal and should pass within a week.

- Infection could occur, but this possibility is minimised by the use of sterile techniques performed in the operating theatre. The needles are all disposable, so you cannot catch hepatitis or HIV.
- Post-procedure pain usually recovers in a few days, but can persist for up to eight weeks.

## What can be eaten or drunk on the day?

You will be advised of the fasting time prior to admission by Sister Kate Young.

### What happens in hospital?

You are admitted to Glenferrie Private Hospital - usually for four hours. Once in the hospital, you will see:

- Dr. David Vivian, who will answer any questions and mark the site for the procedure so that anaesthetic (Emlar) can be applied to the skin.
- An anaesthetist. He will look after pain control during the procedure

Once in the procedure room, the anaesthetist will place a small needle into a vein in your arm. Although you will be awake for the procedure, you will get pain relief if it is necessary. You will lie on a table that is designed to allow the passage of x-rays. You may feel a tingling or ache in the region where you normally feel pain. Dr. Vivian will also give an injection of Celestone (cortisone) to minimise post-procedure discomfort.

Please tell Dr. Vivian if you have a known allergy to cortisone.

Once back in the ward, you can usually leave within 90 minutes. You cannot drive yourself away from the hospital that day, so you should arrange for transport home.

### After the procedure:

You will be discharged from the Hospital, and you may resume normal activities if comfortable. While it is advisable to keep yourself mobile with gentle stretching, no specific physiotherapy is required.

If you have any concerns, please telephone the clinic on 8862 4600 and speak to either Sr. Kate Young or Dr. Vivian.

#### Follow-up:

You should make an appointment for 6 weeks post-procedure with either Dr. Vivian or your referring doctor. Country patients should contact Sr. Kate Young (Tel: 8862 4600) after 4 weeks for a telephone consultation.

#### **Costs:**

Costs for the hospital and procedure can be explained by Sister Kate Young on 8862 4600. These include Dr. Vivian, an Assistant, the anaesthetist, x-ray and the hospital, theatre and bed fee. This procedure is only performed by our practitioners at a private hospital. For TAC, Workcover and DVA cardholders, written approval is required. Should you have no private health cover, a public system referral may be possible.

\*This information was kindly provided by the Metropolitan Spinal Clinic.