Each year, millions of people worldwide suffer from back and/or neck pain. While most people get better, a significant number progress to chronic pain. This pain is often due to multiple causes; the most common cause being pain related to the joints that connect and stabilize the spine. They are called the facet joints.

## How would I know if I might have facet joint pain?

Facet joint pain is often described as back or neck pain that is worsened when one arches back or twists. The pain can be dull or sharp, continuous or throbbing and can be associated with muscle spasm. There may be tenderness to touch over the affected joints. The pain may extend into the arms or legs. In the upper neck, facet joint pain can give one headaches. In the mid back, the pain can wrap around to the front of the rib cage or lower abdomen. In the lumbar spine, the pain may extend into the hips or buttocks.

## Important Information

RF facet denervation, like any surgical treatment, has some risks. Not all patients will find relief of their pain and relieved symptoms may recur over time. Please consult your physician about the risks and potential complications of RF facet denervation.

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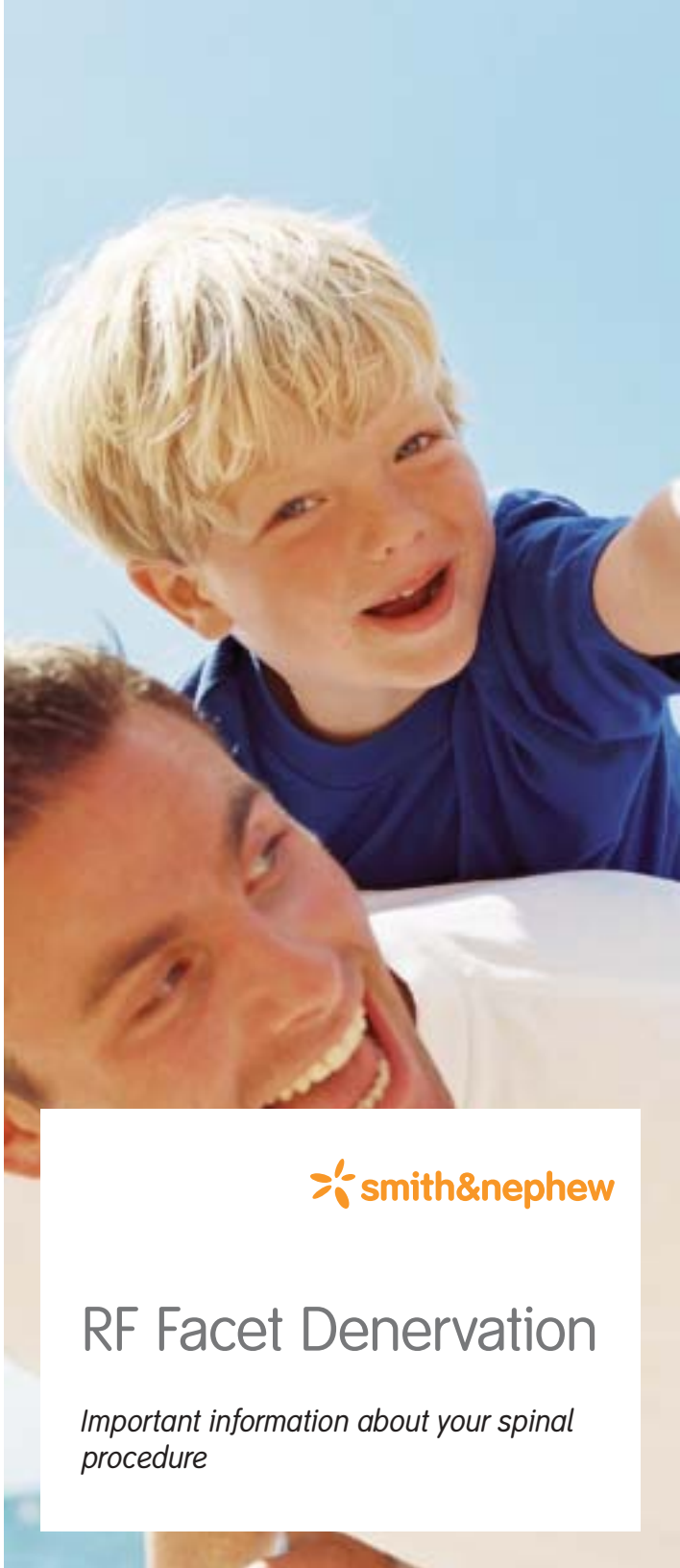

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# RF Facet Denervation

*Important information about your spinal procedure*

## How does someone diagnose facet joint pain?

The diagnosis of facet joint pain (facet syndrome) is performed by a medical specialist. The specialist performs a history and physical which may suggest that you have facet-related pain. This specialist may then refer you for a series of X-rays, a CAT scan or magnetic resonance imaging (MRI) of the spine. If these demonstrate a facet joint problem, then you may be referred to a medical specialist with expertise in diagnostic and therapeutic spine injections. This specialist will place small needles into select facet joints and inject them with a short-acting numbing medication and sometimes a long-acting steroid. Occasionally, the patient may have permanent pain relief. However, if the pain relief is short-term, then you may be a candidate for a longer lasting therapy called facet denervation.

## What is facet denervation?

Facet denervation (also called facet rhizotomy, facet ablation, facet neurotomy or facet neurolysis) uses radiofrequency energy to temporarily interrupt or destroy nerves that carry pain signals arising from the facet joint. These nerves are called the medial branches. Each joint receives input from a medial branch arising from two different levels. Prior to entertaining facet denervation, an injection of short-acting numbing medication is injected in the region of these nerves (medial branch block) to determine if short-term pain relief is achieved. If you experience significant short-term pain relief, then you may be a candidate for a facet denervation procedure once your pain returns to typical levels.

## What is a typical facet denervation procedure?

Facet denervation is performed on an outpatient basis and typically takes about 1 hour to complete. Your physician will advise what pre-op procedures to follow and recommend having someone to drive you home since you may receive intravenous sedation. You should also ask your physician about taking your daily medications.

During the procedure, your breathing, heart rhythm and blood pressure may be monitored. For most procedures, you will be placed on an X-ray table on your stomach, although for neck procedures, you may be placed on your side. Your skin is then cleansed with an antiseptic solution and then numbed with a local anesthetic. During the procedure using continuous X-ray guidance (fluoroscopy), a small radiofrequency needle is placed in similar fashion and similar location as the medial branch block. Motor and sometimes sensory stimulation tests are performed to ensure that the needle is placed near the medial branches, but not near unwanted nerves.

During motor stimulation, you will feel a harmless thumping in the paraspinal muscles. If twitching occurs in an extremity, then the needle will be repositioned. During sensory stimulation, you may feel reproduction of a portion of your typical pain. If you experience pain that is dissimilar to your usual pain, or in an extremity, you will need to inform the treating physician so that the needle can be repositioned.

Once the needle is properly positioned, the nerve will be numbed with a local anesthetic prior to its destruction. There are two methods of radiofrequency that can be performed, thermal radiofrequency and pulsed radiofrequency.

## What is a typical facet denervation procedure? (cont.)

You may ask your physician which method he or she will use for your procedure, including the pros and cons of each. You will be awake and aware during the lesioning portion of the procedure so that you may alert the physician to the development of any extremity symptoms. You will likely feel little, if any, discomfort during this part of the procedure since the nerve has already been anesthetized.

## What will my recovery be like?

Your recovery will be approximately 1 hour. You will be discharged when you are fully awake, your vital signs are stable and you are able to move at least as well as you did prior to the procedure. The deep local anesthetic that was injected may cause some temporary weakness or numbness in an extremity. It is recommended that you not drive or operate heavy machinery for 24 hours after the procedure.

Facet denervation is often not a permanent procedure. The small nerves may grow back over time, however, patients usually experience prolonged pain relief. During the period of pain relief, physical therapy can be initiated to help strengthen the involved facet joints. If similar pain returns, the procedure can be repeated.