Please find the treatable conditions by Mr Munchi Choksey, if you have any questions please check our [FAQ section](#) and [contact us](#) if your question is not answered. If you are due to have your procedure please check our [pre-operative patient guide](#).

Please note all treatable conditions are performed under General Anaesthetic unless stated otherwise.

**Primary Lumbar Canal Decompression And Discectomy**

The patients are positioned in the "Dinmore position" which is a modified knee/chest position. This produces excellent operative conditions because there is virtually no pressure on the abdomen, and hence epidural bleeding is minimised. Prior to preparation of the skin, an image intensifier x-ray machine is used in every case to establish the correct level.

The operation site is then marked and the skin is prepped and draped. I then make a longitudinal incision, exposing the spinus processes and the disc on either one side or both sides, if it is near to or crossing the midline.

I have a very low threshold for doing a bilateral approach. It is my belief that a generous decompression of the disc space and the posterior elements is an essential part of this procedure.
Surgical Procedures

The most important aspect of lumbar disc surgery is to have adequate access, and complete control of the operating conditions including bleeding. This also minimises retraction of the nerve roots as one obtains access to the lumbar disc, which must be remembered is underneath the nerves.

Once again, great care is taken over stopping the bleeding, and I then instil 5mgs of intrathecal Gentamicin into the disc space itself, as an adjunct to prevention of perioperative infection. Having established that the nerve is completely free, and that the disc space has been gutted of all loose disc material, I then establish that there is no bleeding, and close the wound over a drain.

Post operatively, patients are mobilised the next day and quite frequently sent home on that day. The entire in-patient stay may be as low as 24 hours.

Anterior Cervical Discectomy, Fusion And Plating - Or Disc Replacement

Patients are positioned supine (lying flat on their back with the head elevated to about 30 degrees). I bring in an x-ray machine to mark the right level at which to make the incision and then prepare the skin at the neck and right hip.

The incision is transverse, as often as possible along an established skin crease. This is deep to expose the pharyngeal structures (larynx and gullet) and the vascular structures (the carotid artery and the jugular vein).

These are then separated, and the plane between them leads straight onto the pre-verebral space. At this point the image intensifier is brought in once more, and we establish that the correct level has been identified.

I then remove the disc virtually completely, and then remove the osteophytes (excess bone) and the posterior longitudinal ligament, so that at the end of the decompression, the dura mater is seen widely decompressed from side to side. At this point, it is necessary to spend some time stopping the bleeding.
At this point, depending on the preoperative discussion and the operating conditions, one can decide to proceed with the disc replacement, or a standard fusion. My current anterior cervical disc is the Flexicor made by Stryker. If I carry out a fusion I use a Solis cage, filled with a Tribone, and soaked in marrow from the right hip. This is supplemented by a Codman plate and screws (see picture).

I have employed this particular fixation technique in over 800 patients over the last 18 years. I have not had a single incidence of a Solis cage failure, plate migration or screw failure.

After establishing complete haemostasis, using haemostatic adjuncts as necessary (bone wax or Flowseal) I then tap in the graft or disc replacement, put in the plate and screws, establish that there is no bleeding and close the wound over a suction drain.
The surgical technique for cervical (neck) disc replacement is similar to that for fusion. However, instead of a plate, screws and graft, I insert a moving disc replacement.

It is absolutely vital to appreciate that Surgicel, which is a commonly used haemostatic agent, must never be left in the spinal canal following an anterior cervical discectomy. If Surgicel is used to stop the bleeding it must be removed prior to closure. This is because it can swell locally and cause pressure on both the nerve roots and the spinal cord. In fact, the use of Surgicel is stated to be contraindicated in the instructions that come with the packet.

Revision Lumbar Canal Decompression And Discectomy

Revision operations on the lumbar spine are much more difficult than primary operations. This is because there is inevitably scarring around the nerves and the dural tube and dissecting the plane between the dura and scar tissue can be extremely difficult. It takes a long time and this must be allowed in planning one’s operating list. In general, it takes me twice as long to perform a revision procedure than it does a primary procedure.
I have performed over 500 revision procedures on the lumbar spine. Although the rate at which the cerebro-spinal fluid leaks occurs is significantly higher (in about 1 in 50 patients), nevertheless it has always been possible to repair the dura and I have never had a patient leak cerebro-spinal fluid through the wound in a revision procedure to date.

**Primary Or Revision Lumbar Spinal Decompression And Fusion**

This procedure is significantly more time consuming than a primary lumbar canal decompression. Not only does one have to decompress all the nerves, frequently picking one’s way through scar tissue, but in addition one has to put in a fusion. It is my practice to perform a "360° fusion". This involves insertion of metal cages in the disc space anteriorly and pedicle screws posteriorly.

In over 90% of patients, all of this can be achieved through a single wide posterior approach. However, one has to explain to patients that sometimes that the interbody disc fusion can only be done from the front, simply because it is impossible to get the implants safely from behind. Therefore, as a surgeon I will always reserve the right to perform a second procedure if I feel it is in the patient's best interest.

Inserting pedicle screws is well known to be fraught with complications, particularly screw misplacement. Screws can be placed too medially, damaging the nerves within the spinal canal, or they can be placed outside the spinal column altogether, damaging large blood vessels adjacent to it. The key to screw placement, I believe, meticulous pre operative planning, with measurements of the vertebrae in question. There are three measurements I carry out. (see pictures).

First, I measure the width of the pedicle, so I have a very good idea as to what diameter screw I will be using in that particular vertebral body.

Second, I measure the distance between the pedicles, so that I know the distance between the entry points to the initial probing of the pedicle. Third, I measure the length of the screw trajectory, so that the tip of the screw does not penetrate the bone at the front of the vertebra –
and so there is no chance of major injury to the blood vessels just immediately in front of the vertebral body.

Mobilisation after a major lumbar spinal fusion is a bit slower. It is my practice to leave patients in bed for a day following the surgery, remove their wound drains in 48 hours, get them mobilised on that 2nd post operative day, and usually send them home about 5 days after the procedure. All patients will be catheterised (have a tube placed in their bladder) during the operation and for 2 days thereafter. (see notes on post operative pain).

Posterior Cervical Decompression And Foramenotomy

Sometimes, when multiple levels are involved, it is better to operate on the patient posteriorly, and decompress their spinal nerves that way.

The advantage of posterior cervical foramenotomy is that is can be done at multiple levels without destabilising the spine. The disadvantage is that it involves a muscle stripping procedure at the back, and this does tend to generate more post-operative pain.

The mobilisation is correspondingly slow, and the neck does ache for anything up to 4 weeks. With modern post-operative analgesics (pain killers) the problem has diminished considerably, but it is something of which patients have to be aware prior to their surgical procedure.
Surgical Procedures

In my opinion, posterior cervical decompression is marginally safer than anterior cervical decompression, because the risk of spinal cord damage is extremely low through the nature of the very limited exposure of the dural column. Nevertheless it still exists and patients have to be warned of this potential catastrophic complication.

Disc replacement in the lumbar spine.

For anterior lumbar fusion or disc replacement I work with a vascular surgeon. The approach involves retracting the great vessels, and clearing the disc space with an implant. Sometimes we replace one disc, and fuse the other. The success of this procedure lies entirely in patient selection. To date, we have done just over 100 anterior approaches over 10 years, and have had successful results in 94 patients.
Specialised Pain Relieving Procedures

Between 1992 and 1993 I spent a very productive period as Senior Lecturer at the Royal London Hospital, under Professor Sydney Watkins. I learnt much from him, particularly the technique of dorsal column stimulation for the relief of intractable pain.

It has been my practice to employ this technique in patients who have pain that has resisted all other means of treatment, particularly pain that is associated with nerve damage (deafferentation pain).

The most successful results seem to occur in patients who have brachial plexus injuries and in whom one can virtually guarantee abolition of this pain. In patients who have pain due to spinal nerve damage the results are more mixed, but a large number of patients report immensely gratifying reductions in their levels of symptomatology and marked improvement in their quality of life. The technique is expensive, and invasive.

I use an open technique to insert the spinal electrodes and connect it to a battery placed underneath the skin. Recently we have been using rechargeable batteries. For 16 or 17 years, I have used systems that have been made exclusively by Medtronic. There are other systems on the market, but in my practice I have found that the best results are achieved by using equipment with which one is thoroughly familiar.

The technological advancements made over the last few years have been considerable, and the ability to control and modulate the programmer is now quite remarkable. In addition, the battery life has been extended, and with the rechargeable systems, it may well be indefinite.

The surgical risks and techniques are exactly the same as those associated with any open spinal procedure. Fortunately, to date I have only had one patient who required removal of his spinal stimulation system due to infection.

Clearly, such patients have to be followed up for the rest of their life, but most of them become very adept at managing their own stimulator systems, with the programme which they are
Currently, I carry out about 2 or 3 new procedures per year, and revise existing stimulators about as frequently. I have a cohort of about 50 patients on whom I have operated on over the years, most of whom are extremely grateful for having had this treatment provided for them. I would point out that the vast majority of these are treated through the NHS, and although obtaining funding can be difficult, nevertheless if one pursues it vigorously enough with the funding authorities, I have yet to fail in obtaining approval.

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**Morphine (Intrathecal) Pumps**

For other patients with intractable pain, one method of pain control is to instil Morphine on a continuous basis into the spinal canal. This can be extremely effective. I would quote a success rate of about 80%. However, even this technique has its failure rate.

It must only be employed when all other means of pain relief have been tried to exhaustion, and have failed. The risks are those of any spinal procedure together with the ever present risk of introducing infection into the pump itself.

Provided one fills these pumps with meticulously with a rigid sterile technique using the pump refill kits provided by Metron, the risk of infections seem extremely low. In fact, this has never occurred in my clinical practice to date.

There can be problems with the catheters themselves (the tubing) which have been known to block. Sometimes the blockage can be overcome by taking the patient to the X-ray Department and flushing the tubing, but on other occasions the catheter simply has to be replaced.

In addition, the pumps have to be refilled every 90 days. The Morphine solution is not deemed to be stable for much longer than that, even if there is still active Morphine within the pump it has to be removed and discarded, and a fresh solution instilled. Customarily, one instils 20mls of solution into the pump. The pumps themselves are quite bulky, but they can be tucked underneath the skin of the abdomen, and usually they are quite well tolerated by patients.
Again, the programmers are now very sophisticated, and quite advance programming can be employed in such patients, giving patients different doses of Morphine during the course of the day, matching the dose to the intensity of the pain.

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**Minor Pain Relieving Procedures**

**Lumbar Epidural Injections**

The lumbar epidural injections have been employed by neurosurgeons, spinal surgeons and pain control anaesthetist for many years. In essence, we use the epidural space as a convenient repository of long acting steroid preparations, together with some local anaesthetic to counteract the immediate irritant effect of the steroid installation.

**Facet Blocks**

Again, these may be very effective in about 60% of patients. The risks are negligible: i have carried out over 1000 injections and no patient has suffered any significant complication. The mixture I use is KENALOG (80 milligrams) with 10 millilitres Marcain 0.25% - the same as that used for the epidural space.