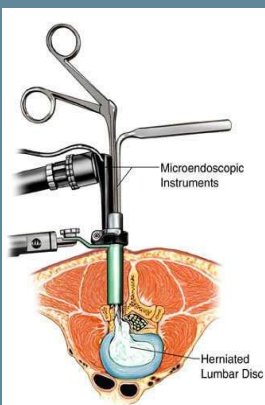
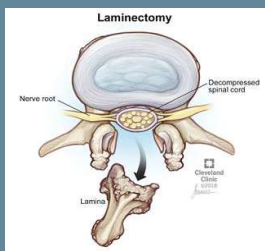
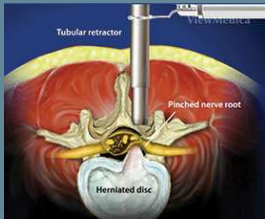
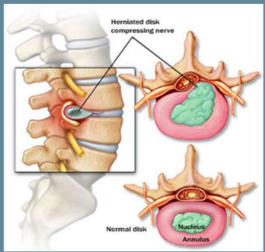
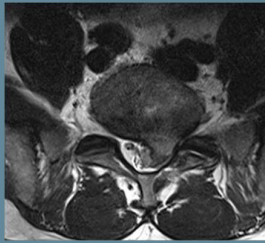


## POSTERIOR LUMBAR DECOMPRESSION LAMINECTOMY AND MICRODISCECTOMY



### ➤ OBJECTIVES OF SURGERY

THE MAIN REASON FOR THIS SURGERY IS TO ADEQUATELY DECOMPRESS THE NERVES AND NERVE ROOTS, THAT HAVE BEEN COMPRESSED BY DISC PROTRUSION. THE REMOVAL OF THE COMPRESSIVE STRUCTURES STOPS THE NERVES BEING IRRITATED AND RELIEVES THE SYMPTOMS OF PAIN IN THE LEGS. IF THERE ARE ANY SYMPTOMS OF NUMBNESS, PINS AND NEEDLES OR WEAKNESS, THIS SURGERY CAN ALSO STOP THE WORSENING OF THESE SYMPTOMS AND OFTEN ALLOWS THE NERVES TO RECOVER OVER TIME, WHICH IN TURN RESTORES NORMAL FEELING AND MOVEMENT IN THE LEGS.

THIS TYPE OF SPINE SURGERY IS PERFORMED MOSTLY IN YOUNGER PATIENTS, THAT DO NOT HAVE SPINE DEFORMITY OR SEVERE ARTHRITIS IN THE SPINE. IT PRESERVES THE ANATOMY AND MOTION WHILE RELIEVING SYMPTOMS OF NERVE COMPRESSION.

### ➤ DETAILS OF SURGERY

THE SURGERY IS PERFORMED WITH THE PATIENT LYING ON THE STOMACH ON A SPECIALISED OPERATING TABLE, THAT IS EXTENSIVELY PADDED AND DESIGNED TO ALLOW SURGERY TO GO ON FOR VERY LONG TIME WITHOUT THE PATIENT BEING AFFECTED BY THIS POSITION. THE APPROACH TO THE SPINE IS VIA THE MIDLINE INCISION, THE RETRACTION OF THE MUSCLES IS MINIMAL, ESPECIALLY WHEN TUBULAR RETRACTORS ARE USED DURING MINIMALLY INVASIVE SURGICAL (MIS) APPROACH. THE LENGTH OF SURGERY IS USUALLY AROUND 1 HOUR.

### ➤ DECOMPRESSION

THE SPINAL CANAL OR NERVE ROOT CANAL ARE ACCESSED BY REMOVING A SMALL WINDOW OF BONE FROM THE LAMINA (THE ARCH OF THE BACK OF THE VERTEBRA). THE OTHER STRUCTURES REMOVED TO ALLOW ADEQUATE DECOMPRESSION OF NERVES IN THE SPINE MAY INCLUDE PART OF THE FACET JOINT, THE INTERVERTEBRAL DISC, THAT IS DEGENERATED AND PROLAPSED. NONE OF THE PARASPINAL MUSCLES ARE REMOVED. THE DISCECTOMY IS ALWAYS ONLY PARTIAL, FOCUSING ON THE DYSFUNCTIONAL AND PROLAPSED PART OF THE DISC.

### ➤ INSTRUMENTATION

THERE IS NO NEED FOR ANY INSTRUMENTATION (SCREWS AND RODS) IN THIS TYPE OF SURGERY.

AS MOST STRUCTURES THAT MAINTAIN STABILITY OF THE SPINE ARE PRESERVED, THERE IS NO BENEFIT OF PLACING SCREWS, RODS OR CAGES INTO THE SPINE.

THE DISC IS ALLOWED TO HEAL WITH OR WITHOUT RESTRICTION DEVICE OVER THE PERIOD OF 6-8 WEEKS. THIS TIME IS WHEN RE-PROLAPSE IS MOST COMMONLY SEEN.

IN SOME CASES, DEVICES THAT PREVENT SUBSEQUENT DISC PROLAPSE, OR RECURRENCE HAVE BEEN USED, HOWEVER THIS WOULD BE DISCUSSED ON AN INDIVIDUAL BASIS.

## ➤ BONE GRAFT FUSION

SIMILARLY, AS IS THE CASE WITH INSTRUMENTATION, THERE IS NO NEED FOR FUSION AND BONE GRAFT IN THIS APPROACH.

WHETHER, MINIMALLY INVASIVE (MIS) OR MINI-OPEN TECHNIQUES ARE USED, THE MINIMAL INTERFERENCE WITH NORMAL ANATOMY AND NORMAL MOVEMENT IS DESIRABLE. THUS, ANY BONE GRAFTING AND FUSION IS CONTRAINDICATED.

IF THE DISC PROLAPSE OCCURS AGAIN AFTER THE INITIAL SURGERY (DISCECTOMY), A DECISION REGARDING THE NEED OF SECOND SURGERY WILL BE REQUIRED. THIS IS MOST OFTEN A WIDER DECOMPRESSION WITH COMPLETE REMOVAL OF THE DISC AND SUBSEQUENT INSTRUMENTED FUSION AND USE OF BONE GRAFT.

## ➤ COMPLICATIONS OF SURGERY

MUCH LIKE WITH ANY SURGERY, THERE ARE POSSIBLE RISKS AND COMPLICATIONS ASSOCIATED WITH THIS PROCEDURE. THE THREE CATEGORIES OF COMPLICATIONS ARE RELATIVELY COMMON RISKS, RARE RISKS AND THOSE THAT ARE STILL UNCOMMON, BUT VERY RELEVANT TO THIS PARTICULAR PROCEDURE.

MORE COMMON RISKS AND COMPLICATIONS (> 5%) INCLUDE:

- INFECTION, REQUIRING ANTIBIOTICS AND FURTHER TREATMENT.
- MINOR PAIN, BLEEDING OR BRUISING AT THE WOUND SITE
- BLADDER INFECTION, PRESSURE SORES OR BLISTERS

THESE USUALLY SETTLE IN SHORT AMOUNT OF TIME AND IF SO, REQUIRING ONLY MINOR INTERVENTIONS.

RARE COMPLICATIONS INCLUDE:

- HEART COMPLICATIONS (HEART ATTACK, IRREGULAR BEAT)
- STROKE OR STROKE LIKE COMPLICATIONS
- PULMONARY EMBOLISM
- DEATH

UNCOMMON RISKS AND COMPLICATIONS (1-5%), THAT ARE SPECIFIC TO THIS TYPE OF SURGERY INCLUDE:

- DEEP WOUND BLEEDING (MORE COMMON IF ON PRIOR BLOOD THINNERS)
- NERVE ROOT INJURY CAUSING A WEAKNESS OR NUMBNESS
- BLADDER OR BOWEL PROBLEMS DUE TO NERVE ROOT INJURY
- FLUID LEAK FROM SPINAL NERVES COVERINGS (CSF)
- ONGOING PERSISTENT LEG NUMBNESS DUE TO NERVE DAMAGE FROM COMPRESSED NERVE ROOTS.
- ONGOING PERSISTENT BACK PAIN
- DETERIORATION OF OTHER DISCS. THIS MAY REQUIRE FURTHER SURGERY.

- SUBSEQUENT SAME DISC PROLAPSE (RE-PROLAPSE)
  - SHORT-TERM (SEVERAL DAYS) RISK UP TO 5%
  - MEDIUM-TERM (UP TO 6 WEEKS)
  - IF DISC DEFECT IS LARGE, THE RISK OF RECURRENCE IS UP TO 30%
- VISUAL DISTURBANCE. THIS MAY BE TEMPORARY OR PERMANENT.
- SMALL AREAS OF THE LUNG MAY COLLAPSE, INCREASING THE RISK OF CHEST INFECTION. THIS MAY NEED ANTIBIOTICS AND PHYSIOTHERAPY.
- IN PATIENTS WITH HIGH BODY-MASS INDEX, INCREASE RISK OF WOUND INFECTION, CHEST INFECTION, HEART AND LUNG COMPLICATIONS, AND THROMBOSIS.
- BLOOD CLOT IN THE LEG (DVT) CAUSING LEG PAIN AND SWELLING.

RARE RISKS AND COMPLICATIONS (< 1%) THAT ARE SPECIFIC TO THIS PROCEDURE INCLUDE:

- PARAPLEGIA FROM A BLOOD CLOT. THIS MAY REQUIRE FURTHER SURGERY AND THOUGH USUALLY TEMPORARY, MAY BE PERMANENT.
- INJURY TO MAJOR BLOOD VESSELS AND NERVES.

**MAJORITY OF THE TIME, THE ABOVE COMPLICATIONS ARE TEMPORARY AND RESOLVE IN TIME, HOWEVER SOME MAY REQUIRE FURTHER SURGERY TO BE ADEQUATELY TREATED. IN SOME INSTANCES, THEY CAN HAVE LASTING EFFECTS OR EVEN THOUGH VERY RARELY, BE PERMANENT IN NATURE.**

## ➤ RECOVERY AFTER SURGERY

THE LENGTH AND EASE OF RECOVERY IS MOSTLY DEPENDENT ON THE PATIENT'S AGE PRE-SURGERY CAPACITY AND FITNESS.

THE HOSPITAL STAY IS USUALLY 1-3 DAYS. DURING THIS TIME THE PATIENT RE-ESTABLISH THEIR INDEPENDENCE. WHETHER THE DISCHARGE DESTINATION IS HOME OR INPATIENT REHABILITATION CENTRE, THE SUBSEQUENT 2 WEEKS IS SPENT EXERCISING, WALKING AND ENGAGING IN INCREASINGLY MORE VIGOROUS ACTIVITY. BY 4 WEEKS AFTER SURGERY, THE PATIENT IS USUALLY ABLE TO DO MAJORITY OF ACTIVITIES THEY WISH, BUT WITH DIFFICULTIES. BY 2 MONTHS AFTER SURGERY, THE PATIENTS ARE ABLE TO DO MOST ACTIVITIES WITHOUT DIFFICULTIES.

IN GENERAL, IF THE PATIENT IS LESS THAN 40 YEARS OLD, THE ABOVE TIME ESTIMATES CAN BE HALVED.

## ➤ PAIN AFTER SURGERY

MOST OF THE PAIN DIRECTLY AFTER AND FOR APPROXIMATELY 2 WEEKS AFTER SURGERY IS DUE TO MUSCLE SPASMS. THIS OCCURS AS THE PARASPINAL MUSCLES RECOVER FROM SURGERY. THE PAIN IS NOT DANGEROUS AND DOES NOT INDICATE ANY WRONG DOING BY THE PATIENT OR ANY UNDUE EFFECT TO COMPROMISE THE OUTCOME OF THE SURGERY.

THIS PAIN IS WELL MANAGED BY COMBINATION OF UPRIGHT EXERCISE (WALKING), REST IN FLAT POSITION AND ADEQUATE PAIN RELIEF.

THIS WILL ALL BE EXPLAINED DURING THE HOSPITAL STAY AND DURING POST-OPERATIVE REVIEWS.

# CONSENT

**PROCEDURE, SIDE AND LEVELS:**

Patient label:

**IT IS IMPORTANT FOR YOU TO UNDERSTAND THE NATURE OF YOUR OPERATION, WHAT WE ARE TRYING TO ACHIEVE FOR YOU AND THE COMPLICATIONS WHICH CAN OCCUR. OCCASIONALLY SOME OF THESE CAN BE QUITE SIGNIFICANT, INCLUDING PERMANENT LOSS OF FUNCTION AND YOU MAY EVEN NEED TO HAVE A SECOND OPERATION. MOST HOWEVER, ARE LESS SIGNIFICANT AND OFTEN TEMPORARY. WE HAVE MENTIONED SOME OF THESE COMPLICATIONS (ABOVE AND BELOW), BUT IT IS NOT A FULL LIST AND OTHER UNFORESEEN CIRCUMSTANCES CAN ARISE. WE WILL TRY AND GIVE YOU AS MUCH INFORMATION AS YOU NEED AND WANT TO HAVE, SO THAT YOU CAN MAKE THE DECISION WHETHER TO PROCEED WITH YOUR OPERATION.**

- ☐ UNDERSTAND THE MAIN PRINCIPLES OF THE OPERATIVE PROCEDURE THAT MY SPINAL SURGEON IS TO UNDERTAKE. I HAVE READ THE INFORMATION BOOKLET PREVIOUSLY GIVEN TO ME ABOUT MY OPERATION. I FEEL THAT I HAVE BEEN GIVEN EVERY OPPORTUNITY TO ASK ANY QUESTIONS ABOUT THIS PROCEDURE.
- ☐ UNDERSTAND THAT THE SURGERY IN QUESTION IS NOT A "CURE", BUT IT IS THE NATURE OF SPINAL SURGERY TO EXPECT A GOOD PERCENTAGE IMPROVEMENT. I ALSO UNDERSTAND THAT IMPROVEMENTS MAY NOT BE IMMEDIATE BUT MAY BE GAINED IN THE LONGER TERM. I AM ALSO AWARE OF THE LIKELY OUTCOME IF I DO NOT HAVE SURGERY.
- ☐ UNDERSTAND THAT COMPLICATIONS WHICH MAY OCCUR WITH THIS TYPE OF PROCEDURE INCLUDE: NERVE ROOT INJURY, DURAL LEAK OR SPINAL CORD INJURY; RECURRENCE OF MY PROBLEM; FIBROUS TISSUE FORMATION; INFECTION AND SKIN AND NERVE PRESSURE PROBLEMS. GENERAL ANAESTHETIC AND MEDICAL PROBLEMS MAY INCLUDE CHEST INFECTIONS, URINARY INFECTIONS, AND OTHERS.
- ☐ UNDERSTAND THAT THERE ARE ALSO VERY RARE BUT SERIOUS COMPLICATIONS WHICH HAVE BEEN RECORDED FROM THIS TYPE OF SURGERY WHICH, IN EXTREME CIRCUMSTANCES, MIGHT INCLUDE: DEATH, PARALYSIS, EYE COMPLICATIONS INCLUDING BLINDNESS, SERIOUS VASCULAR INJURY, STROKE AND OTHER SERIOUS ANAESTHETIC AND MEDICAL PROBLEMS.

SIGNATURE:

DATE:

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