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LAPAROSCOPIC SPLENECTOMY **(KEYHOLE REMOVAL OF THE SPLEEN)** **INFORMATION SHEET**

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THIS INFORMATION REFLECTS THE PERSONAL PRACTICE OF DR KELLEE SLATER ONLY
AND DOES NOT SUBSTITUTE FOR DISCUSSION WITH YOUR SURGEON.

WHY DO I NEED THIS OPERATION

The most common reasons to carry out this surgery are for disorders of the blood stream, like ITP (ideopathic thrombocytopenic purpura), infections of the spleen and trauma.

WHAT DOES THE SPLEEN DO?

The spleen is high up on the left hand side of the abdomen under the ribs. The stomach sits just in front and left kidney, just beneath. The spleen acts a filter for bacteria. It also stores white blood cells, platelets and removes old red blood cells.



WHAT DOES THE OPERATION INVOLVE?

Laparoscopic splenectomy involves making four or more small (5-10mm) incisions on your abdomen. Carbon dioxide gas is then pumped into the abdominal cavity to provide a space to operate in. A fiberoptic telescope and long instruments are then inserted into the abdomen and the spleen is separated from the stomach, kidney and colon. The blood supply of the spleen is stapled across with a special device that secures the blood vessels.

The spleen is then placed in a bag inside the abdomen. One of the small incisions is enlarged in order to deliver the spleen out of the abdomen in this bag.

CONVERSION TO OPEN OPERATION

Conversion to an open operation via a larger incision is not considered a failure in keyhole surgery. Sometimes the surgeon will consider it necessary to make a bigger cut on your abdomen to finish the operation. This is often done if there is bleeding that is difficult to control or if the spleen is too large to remove with keyhole surgery. Open operation is always performed when the surgeon feels that they cannot complete the operation safely with keyhole surgery.

Keyhole surgery can also be more difficult if there has been previous surgery. This is another common reason to convert to open operation. This is considered sound judgment. Open operation involves a slightly longer recovery period.

WHAT ARE THE COMPLICATIONS OF SURGERY TO REMOVE THE SPLEEN?

Even though the incisions are small, spleen removal is still considered a major operation. Whilst laparoscopic surgery is considered a relatively safe and low risk operation, all surgery carries a number of serious complications. It must be stressed, these complications are very rare. Complications are dealt with on a case by case basis. Some of these are:

General Risks:

- Death: approx. 1/10,000 risk for all patients having this type of operation.
- Allergic reaction or airway problems related to the anaesthetic.
- Bleeding: usually occurs either during the operation or in the first 24 hours and may require further surgery. You may require a blood transfusion.
- Blood vessel problems: heart attack, stroke. This is very rare.
- Infections: Wound, pneumonia, urine, intra-abdominal, IV line related.
- Clots in the legs that may travel to the lungs. This may be fatal.
- Wound pain, abnormal (keloid) scarring or hernia of the wound.
- Bowel obstruction due to hernia or adhesions.

Risks Specific to Laparoscopic Splenectomy:

- Injury to the tail of the pancreas – resulting in a collection of fluid in the abdomen that may require a further operations or drainage procedures.
- Bleeding from the blood vessels that flow to the spleen requiring a return to the operating theatre.
- Significant distention of the stomach that may lead to a large vomit. Occasionally some of this vomit may be inhaled into the lungs and cause lifethreatening pneumonia. This is why a tube will be placed via your nose into the stomach for the first day after the operation.
- Because the spleen is very close to the left lung, partial collapse of the left lung is quite common after splenectomy. The physiotherapist will work with you to prevent this. It is very common to have a slight fever on the first 1-2 days after the operation because of this lung collapse.
- Injury to any organ in the abdomen: bowel, aorta, liver, stomach. This is rare.
- Gas Embolism – a bubble of carbon dioxide gets into a blood vessel and causes life threatening heart problems. This is very, very rare.
- Re-operation: if the surgeon has to re-operate for any reason, this may be done with keyhole surgery or an open operation.

- Life-threatening infections related to having no spleen (see below).

WHAT ARE THE CONSEQUENCES OF LIFE WITHOUT A SPLEEN?

The spleen is part of the immune system – it is there to filter bacteria and release cells to fight these bacteria.

Generally day-to-day life without a spleen goes on completely as normal.

However, some precautions must be taken. All splenectomy patients are given vaccinations against the bacteria; pneumococcus, HIB (influenza) and meningococcus either before or after surgery. The risks of lifethreatening infection after splenectomy (overwhelming post-splenectomy sepsis or OPSI) is very low, but patients and their families must always be aware they are susceptible to these infections and seek help early if they feel unwell. I recommend you wear a medical bracelet stating you have no spleen.

Patients with no spleen should always have any bacterial infection – no matter how minor, treated promptly with antibiotics. You should carry antibiotics if you go overseas.

The other problem after splenectomy is a temporary elevation of the platelet count. Platelets help the blood to clot. They are stored in the spleen. After the spleen is removed, the platelet level commonly rises very high. This increases the risk of clots in the legs and lungs. Your platelet count will be monitored and if it is high, you will be given one aspirin per day. This deactivates the platelets. You will continue to take aspirin until the platelet count is normal.

WHAT TO EXPECT IMMEDIATELY AFTER SURGERY

Pain Relief

On the first day after surgery, there may be a moderate amount of discomfort at the site of the operation.

You will have some form of pain relief. Most commonly this will be Patient Controlled Analgesia (PCA); a button to press with strong pain killers in it.

Every effort will be made to minimize the discomfort and make it bearable. Your doctors and nurses will be monitoring your level of pain control frequently.

When you are back on a normal diet, you will be converted to oral pain relief.

Drain tubes

You will have a number of plastic tubes in your body following surgery. They will vary a little depending on your particular medical need. They will be removed at variable times following your surgery under the direction of the surgeon. All tubes except for an IV in your hand will be placed under anaesthesia.

1. IV line: In your arm and in your neck (placed under anaesthesia) to give you fluids and pain relief after surgery.
2. Urinary catheter: tube placed in your bladder so you don't have to get up to pass urine.
3. Abdominal drain tubes: one or two soft plastic drains coming out of your abdomen that are placed around the splenic bed to drain any fluid so it does not collect in your abdomen.
4. Nasogastric tube: a tube that goes from the nose into the stomach.

Eating

The spleen is just behind the stomach. As a consequence your stomach may take a few days to begin to work again. You will not have anything to eat or drink for the first day after surgery. Intravenous infusion will provide you with the fluids you need. In most cases you will have a nasogastric tube (NG) in your nose that will remove the stomach contents until your stomach recovers. Your surgeon will let you know when you will be able to eat.

Urinating/Bowel Movements

During the first few days after the surgery, the tube placed in your bladder will drain your urine. You will probably not have a bowel movement for several days after the surgery.

Activity

You can expect your nurse and physiotherapist to help you get out of your bed on the first day after surgery. You will be able to walk short distances even with all of the tubes

and intravenous lines. As each day passes your tolerance for walking and sitting in a chair, out of bed will increase.

It is extremely important to be mobile to prevent pneumonia, clots in the legs and loss of general condition. You can expect to have to wear stockings on your legs whilst in hospital to prevent clots and have an injection of the blood thinning medication heparin, twice a day under the skin for the same reason.

Your Incision

You can expect to have a waterproof dressing over your incision for the first five days. You will be able to shower with this dressing. It is quite common to have a small amount of leakage from the wound.

You can peel the dressing off 5 days after the surgery. The wounds should be healed by this time. You may get the wounds wet after 5 days. It is common for the wounds to be bruised.

Most commonly you will not have stitches to remove, they will be of the dissolving type.

Other Important Information

You can expect to see your surgeon every week-day. On weekends or in times when your surgeon is operating elsewhere as an emergency, you will see one of the practice partners. All are very experienced in this type of surgery and commonly assist each other in the operating theatre.

We will make every effort to keep you informed of your progress. We are always honest and open with you and your family. Feel free to ask questions.

Length of Stay in Hospital

On average most patients will expect a 4-6 day hospital stay. This time however differs greatly for individual patients. Some stay shorter, some much, much longer. You will not be discharged before you can walk unaided and care for yourself.

Loss of weight

It is common for patients to lose up to 5% of their body weight after major surgery. The weight loss usually stabilizes very rapidly and most patients after a small amount of initial weight loss are able to maintain their weight and do well.

How you may feel

You may feel weak or "washed out" when you go home. You might want to nap often. Even simple tasks may exhaust you. You may lose your taste for food.

You might have trouble concentrating or difficulty sleeping. You might feel depressed.

These feelings are usually transient and can be expected to resolve in 2-4 weeks.

Your medications

Your surgeon will discuss with you which medications you should take at home. If needed, you will go home with a prescription for pain medicine to take by mouth.

Your incision at home

After your dressing is removed, it can be left open to the air. You may wear clothes over the top of it. You may see a small amount of clear or light red fluid staining your dressing or clothes. If it is minor cover that part of the incision with a pad. If staining is severe, you should call your surgeon.

Your incision may be slightly red along the cut. This is normal. You may gently wash dried material around your incision and let water run over it. Do not rub soap or moisturizer into your incision until at least 4 weeks or it is fully healed. You may put vitamin E cream on once fully healed.

It is normal to feel a ridge along the incision. This will go away. It is normal to have a patch of numbness under the wound.

Over the next few months your incision will fade and become less prominent.

Activity

Listen to your body, if it is hurting, don't continue with the activity.

Do not drive until you have stopped taking narcotic pain medication and feel you could respond in an emergency.

You may climb stairs.

You may go outside, but avoid traveling long distances until you see your surgeon at your next visit.

Don't lift more than 10 kg for 6 weeks. (This is about the weight of a briefcase or a bag of groceries) This applies to lifting children, but they may sit on your lap.

You may start some light exercise when you feel comfortable.

You may swim after 4 weeks

Heavy exercise may be started after 6 weeks - but use common sense and go slowly at first.

You may resume sexual activity when you feel ready unless your doctor has told you otherwise.

About your surgeon

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Graduated Medical School – University of Queensland 1994

Fellow of the Royal Australian College of Surgeons – 2002

Liver and Kidney Transplant Fellowship – University of Colorado Hospital – Denver Colorado USA 2002-2004

Hepatobiliary Fellowship – Princess Alexandra Hospital – Brisbane 2004-2006

Staff Surgeon (Hepatopancreatic-Biliary-Liver Transplant) Princess Alexandra Hospital and Greenslopes Private Hospital – Brisbane 2006- Present