

## Splenectomy

This information sheet describes surgery for removal of the spleen (splenectomy) and what to expect before and after the operation.

An operation to remove the spleen is a common treatment for various disorders of the blood and spleen.

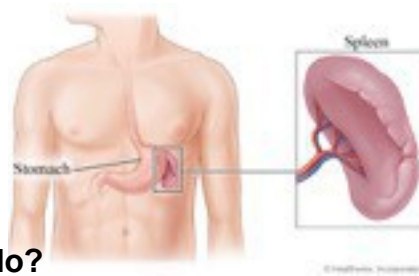
Many patients with a problem affecting the blood can see an improvement by removal of the spleen. While most diseases of the blood can be treated by modern drugs, in some cases a splenectomy can help with the disease itself or with the effects of the disease.

The operation to remove the spleen is major surgery and may not be suitable for all patients. A number of investigations may be needed before an operation to make sure you are fit enough to make a good recovery.

### Why remove it?

In general the spleen can be removed for a number of reasons:

1. To improve a disease (such as Idiopathic Thrombocythaemic Purpura) where the spleen is destroying platelets or blood cells.
2. When it becomes too large and starts destroying too many blood cells and platelets.
3. To diagnose and treat certain diseases such as Marginal Zone Lymphoma.
4. When it bleeds following trauma or spontaneous rupture.
5. When it has got so large that it is physically uncomfortable. The spleen is usually the size of a fist but can grow to over 5kg. In some circumstances this can cause pain and aching on the left of the abdomen.
6. Occasionally when certain cancers, such as ovarian cancer, have spread to the spleen.



### **What does the spleen do?**

The spleen is located in the left upper part of the abdomen. It performs a number of functions but mainly acts as a filter for the blood, removing old blood cells and platelets. It is also used for fighting particular types of infection such as pneumonia and meningitis. In some cases it can take on the work of the marrow and make new blood cells.

### **What happens without a spleen?**

Not having a spleen makes little difference on a day to day basis. Without one the body can cope well. However, there is a lessening of the ability of the body to fight certain types of infection (pneumonia, meningitis and sepsis). Therefore most people without a spleen are asked to stay on a low dose of an antibiotic in the long term and to have vaccines against the commonest bacteria that cause pneumonia and meningitis. These are usually given before the operation but can also be given afterwards if needed.

### **Chances of success**

Whilst the majority of patients will have a benefit from splenectomy, it is not always successful in every case. There is a chance that your condition may not improve with this treatment. There is also the possibility that the procedure will be successful initially, but the disease can recur in the future. You should ensure that you have discussed the likelihood of success with your haematologist before deciding whether to proceed with surgery. In addition, you should ensure you have discussed any alternative treatment options that may be available.

### **Investigations you may need before surgery**

- Blood tests – It is routine to have blood tests to check your kidney function, blood count and general health.
- ECG (Electrocardiogram) and lung function tests – These tests are performed to check how well your heart and lungs are working in order to make sure you are fit enough for surgery.

- Anaesthetic review – Usually in the preadmission clinic you will see an anaesthetist to discuss the anaesthetic and pain relief following the operation.

### **Preparing for surgery**

In the weeks before your operation there are a number of things you can do to prepare. Firstly, remember to speak to your family and arrange any support or help you may need afterwards.

Secondly, try to eat well and take some regular light exercise on a daily basis. This can just be a brisk walk outside or cycling for twenty minutes.

If you are a smoker it will greatly benefit you to stop temporarily, or for long-term health permanently.

Most important is to get the vaccines that are needed before the operation. These will usually be given in your local doctor's surgery after discussion with the haematology and surgical team. They can be given afterwards if the operation is an emergency.

## What the surgery involves

The surgery can be done with a keyhole (laparoscopic) approach if the spleen is not too large. If the spleen is large or if you have had previous surgery near the spleen, it is safer to do the operation through an 'open' approach. The type of operation you will have will be discussed with you by your surgeon. Either type of operation will need a general anaesthetic. The anaesthetist will discuss this with you in the pre-admission clinic.

## Risks involved with surgery

Splenectomy is a major operation and the full recovery period after surgery can take up to 3 months, depending on the individual. Before the operation, your surgeon will discuss the risks associated with your surgery with you. The mortality risk (or risk of death) nationally in the UK is around 2%. At the Norfolk and Norwich, the risk is lower (1%) but this is still a serious risk.

The possible risks are described below:

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### **hest problems**

**C**

Any operation near the diaphragm will affect breathing afterwards; chest infection is a common occurrence after splenectomy. About a quarter of patients will require antibiotics for this. A smaller number (1 in 10) will have a severe chest infection that is likely to require you to spend longer time in hospital. If you have chest problems to start with (asthma, COPD or smoking-related chest problems), a chest infection after the operation can be severe and life-threatening.

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### **leeding**

**B**

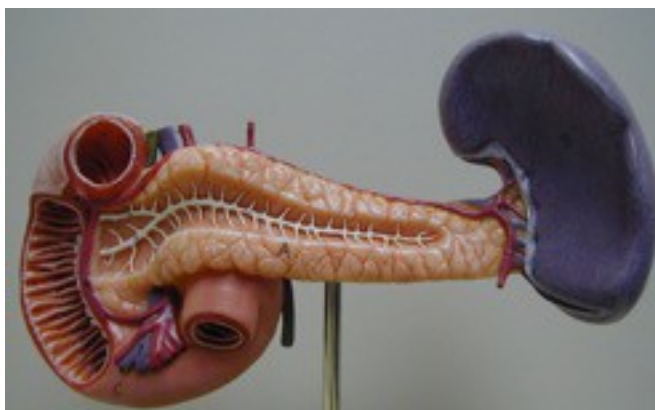
Bleeding can occur with any operation; it is uncommon for excessive bleeding to occur after splenectomy but occasionally a further operation may be required if bleeding continues in the hours immediately after surgery. A blood transfusion for blood loss during surgery is commonly used in about a tenth of patients. If you have concerns about a blood transfusion please let your surgeon and anaesthetist know before the operation.

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### **nfection**

**I**

Infection of the wound or deep-seated infection in the abdomen is another risk. Any infection can usually be treated easily with antibiotics. Occasionally, for deep-seated infection, a small drain is placed under local anaesthetic. These drains will stay in for a few days until the infection is resolved.



- **pancreatitis / pancreatic fistula**

**P**

Splenectomy involves dissecting very near the pancreas gland (the pale yellow gland in the picture above). This gland has a tail that sits up next to the spleen (the purple organ in the picture above). In some cases this pancreatic tail can become inflamed (pancreatitis) or leak pancreatic juices into the area where the spleen was. The risk of this is about a 1 in 20 chance. In most cases this resolves with time but a large collection will require drainage for several days and sometimes weeks.

- **delayed stomach emptying**

**D**

The stomach lies next to the spleen. Sometimes after a splenectomy it can take a while to get going. This will usually manifest itself as feeling full and nauseous. Rarely this can need treating with a tube passed down the nose into the stomach in order to drain it until the stomach starts working again.

- **regrowth**

**R**

Occasionally, many years after a splenectomy some residual tissue can grow and form a new spleen. This is relatively rare, though is easy to treat with further surgery.

## **What to expect whilst you are in hospital**

Most people are in hospital for 2 to 7 days. If there are complications, your stay may be longer.

Depending on the anaesthetist's opinion you will either go straight back to the ward after surgery or you may go to the high dependency unit (critical care complex) for a period of time. Some people will spend 24 hours in the critical care complex after surgery, though this may be longer. Afterwards you will go back to the surgical ward (Gissing ward).

## **Pain Control**

After a major operation, you may experience some discomfort. This is usually controlled by the epidural method of pain relief if you have an open operation. This involves inserting a thin plastic tube in your back just before the operation. It is attached to a pump to give you continuous pain-relieving medication until you are ready to take tablets. The anaesthetist will discuss this with you before the operation. It is important to make sure you have adequate pain relief so you can move around and cough to prevent complications.

With a laparoscopic (keyhole approach), pain is much less of an issue and you will be given injections for pain relief as well as tablets in the first few days.

The physiotherapists will work closely with you to help your lungs recover and prevent breathing complications. This is the most important part of your recovery process.

## **Wounds and Drains**

There will often be a drain coming from the wound. The drains are placed to allow fluid to drain from the wounds. They are removed once the fluid stops draining.

An open operation leaves a straight wound in the middle of the upper abdomen. This is usually closed with a single stitch that can be taken out after ten days.

Laparoscopic surgery involves small incisions that are closed with a dissolving suture. These sutures do not need to be removed.

## **Eating**

You will usually be able to eat on the day after surgery. Occasionally the stomach can take a while to get going (see above); in this instance, the doctors seeing you regularly will make a decision about starting eating when they are happy the stomach is able to empty properly. You will find that the volume of food you can eat is less and your appetite is less for a few weeks after surgery.

Do not try and force feed yourself – just have normal nutritious foods, but slightly less than normal.

## **After you go home**

Your recovery will continue after you go home. We will see you regularly in clinic and in addition you can ring at any time for advice.

You will need help and support after getting home. Think about this before coming into hospital for your operation.

You may consider purchasing an alert bracelet that mentions that you have had a splenectomy.

You should remember to continue to take the antibiotics afterwards and to repeat the pneumonia vaccination every 5 years.



## Useful contacts for further information

### Big C Cancer Information Centre

NNUH, Colney Lane, Norwich, Tel: 01603 286112, email: [cancer.information@nnuh.nhs.uk](mailto:cancer.information@nnuh.nhs.uk)

### ITP association

[www.itpsupport.org.uk](http://www.itpsupport.org.uk)

The ITP Support Association

"Synehurste" Kimbolton Road Bolnhurst Bedfordshire MK44 2EW United Kingdom

Mr Michael Lewis Consultant UGI Surgeon Tel: 01603 287583

Dr Hamish Lyall Consultant Haematologist Tel 01603 646750

