

Splenic Diseases

What is the spleen and what is its function?

The spleen is an organ located in the upper left portion of the abdomen, behind the stomach. Its functions are to filter blood, remove bacteria, make blood, and store blood.

When does removal of the spleen become necessary?

Removal of the spleen (splenectomy) becomes necessary in several conditions, some of which are listed below:

- Idiopathic thrombocytopenic purpura (ITP)
- Thrombotic thrombocytopenic purpura (TTP)
- Primary splenic thrombocytopenia
- Hereditary spherocytosis
- Acute and chronic leukemia
- Splenic cysts
- Felty's syndrome
- Splenic tumors
- Splenic artery aneurysm

These are conditions that present with different symptoms and signs and physicians or hematologists generally investigate these patients and treat them primarily. In many of the conditions medical treatment with drugs is used as the first line of therapy and surgery for removal of the spleen is advised only when the response to medical therapy is either unsatisfactory or the clinical condition keeps recurring once the medication is tapered off or stopped. The decision for surgery is usually made by the physician / hematologist and the patient is then referred to a surgeon.

How is splenectomy performed?

Traditionally splenectomy is performed through an open incision – either a vertical one in the upper abdomen or one below the ribcage on the left side. Today, most patients requiring splenectomy can be offered a laparoscopic splenectomy with all its benefits. Certain patients, particularly those with a very large spleen, may still be required to have an open splenectomy.

What preparation is required prior to laparoscopic splenectomy?

All patients undergo certain tests including blood tests, x-ray of the chest and ECG prior to surgery. Certain additional tests may be required at times. All patients are required to take certain vaccines two to three weeks prior to splenectomy in order to protect them against infections produced by organisms that, in the presence of the spleen, are destroyed by the spleen.

How is laparoscopic splenectomy performed?

During laparoscopic splenectomy the surgeon makes four small incisions in the upper abdomen and passes thin tubes called cannulas through them. The abdomen is filled with carbon dioxide gas to create the working space necessary. A telescope attached to a small video camera is inserted through one of the cannulas to visualize the internal organs. Specialized instruments are passed through the other cannulas that allow the surgeon to divide the blood vessels going into the spleen and separate it safely from the surrounding structures. Once detached, the spleen is placed in a plastic bag and is removed in a piecemeal manner through one of the incisions after enlarging it slightly. A tube may be placed through one of the cannulas at the end of the surgery.

What happens after the surgery?

The patient does experience some amount of pain for about 24 hours after laparoscopic splenectomy and this varies depending on individual tolerance. Also, some nausea and vomiting is not uncommon in the first 12 hours. Patients are always given medications to relieve the pain and take care of the

nausea. Usually, the patient is allowed to drink fluids within 12 hours of surgery and is able to have meals from the day after surgery. Activity is dependent on how the patient feels, but all patients are encouraged to get up and walk as soon as they are comfortable. Most patients go home within a 48 – 72 hours after laparoscopic splenectomy as compared to five to seven day following the traditional open operation. Some patients, particularly the elderly and those with other medical problems like diabetes may have to stay in the hospital a little longer. In general, patients recover completely within 10 to 15 days. Patients need to follow certain precautions after a splenectomy which include a daily tablet of antibiotics for around 2 years after surgery, starting antibiotics early if they suffer from any infection such as upper respiratory tract infection and taking antibiotics if undergoing any surgical intervention including dental extraction.

What are the advantages of a laparoscopic splenectomy?

- Less pain from the incisions after surgery
- Shorter hospital stay
- Shorter recovery time
- Faster return to normal diet
- Faster return to work or normal activity
- Better cosmetic healing

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Disclaimer

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