



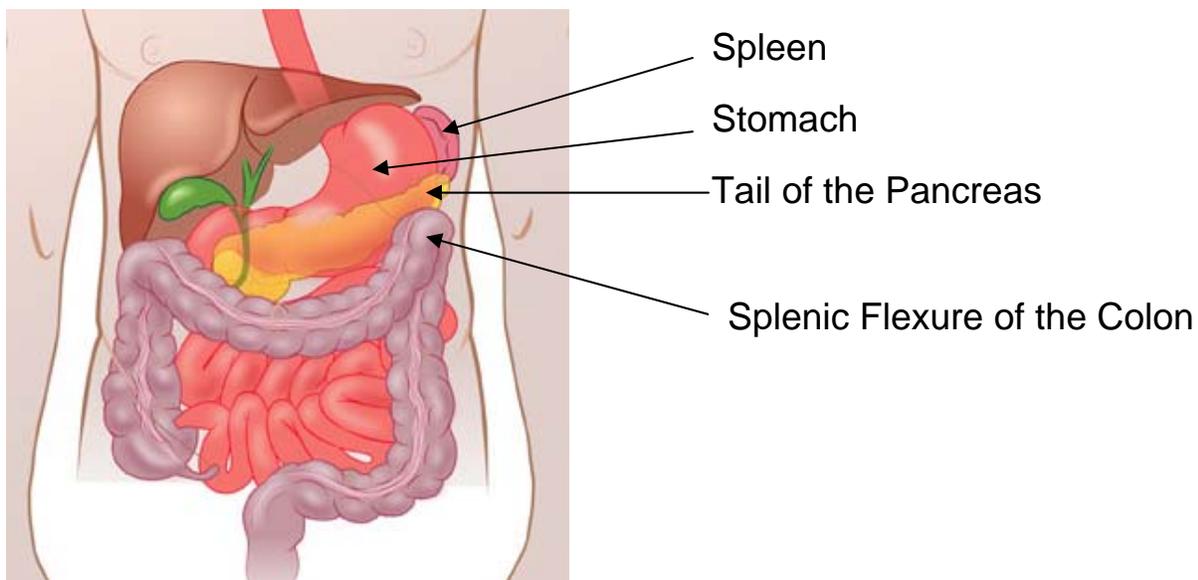
Splenectomy

Procedure Information

Where is the spleen located?

Your spleen is located in the upper left side of the abdomen, partly protected by your lower ribs. It lies beneath the diaphragm; near the tip of the pancreas (the tail) and behind your stomach. It also lies close to the area of your colon called the “splenic flexure”.

The spleen plays an important role in filtering blood; therefore it is connected to a number of blood vessels. First, it is attached to the stomach by small blood vessels. The spleen has large blood vessels that carry the blood in and out of the organ. These vessels (the Splenic Artery and Vein) lie behind the pancreas and enter in the center of the spleen, called the hilum.



What does the spleen do?

The spleen is part of the lymphatic and immune system and has several functions. The spleen filters bacteria, worn-out red blood cells and platelets from the blood. It is also responsible to control blood flow to the liver, and serves as a storehouse for certain blood cells such as platelets.

Why is a spleen removed?

A spleen is removed in a surgical procedure called a “splenectomy”. A splenectomy is performed for the diagnosis and/or treatment of different disease or to control symptoms associated with certain conditions, such as pain or bleeding. Examples of this include:

1. Diagnosing or treating certain lymphomas (cancer)
2. Treatment of certain auto-immune disorders in which the spleen destroys platelets such as idiopathic thrombocytopenia purpura (ITP).
3. Treatment of disorders of the blood
4. Managing pain. Some conditions can cause the spleen to massively increase in size causing the patient pain.
5. Treatment of spontaneous rupture or bleeding caused by physical trauma to the spleen
6. May be done as part of another surgical procedure

How is the spleen removed?

The spleen is removed while you are under general anesthesia. There are 3 different surgical procedures to remove the spleen.

They are:

1. **Open Splenectomy**- Your surgeon makes an incision vertically along your abdomen, then locates the spleen separates it from it's' attachments and blood supply and removes it. Once the procedure is completed, the incision is closed with either staples or sutures.
 - A. You will be in the hospital for 2-4 days
 - B. You should not lift anything greater than 5-10 lbs for 6-8 weeks.
 - C. It will take you 6-8 weeks to fully recover

2. **Laparoscopic Splenectomy** – Your surgeon will make 3-4 small incisions in your abdomen. Instruments are then inserted that allow your surgeon to visualize the area and remove the spleen. Once the spleen is removed, disposable sutures will be used to close the incisions.

- A. You will be in the surgical observation unit overnight,
- B. You should not lift anything greater than 5-10lbs for 2 weeks after surgery,
- C. It will take you 2-4 weeks to fully recover.

Note:
During surgery your surgeon may not feel that the spleen can be removed safely laparoscopically.

Your surgery will then be converted to an open splenectomy.

3. **Hand Assisted Laparoscopic Splenectomy** – This is done like a laparoscopic splenectomy. However, in addition to the small incision a larger (approximately 3-4 inch) incision is made to allow the surgeon to extract a very large spleen.

- A. You will be in the surgical observation unit overnight,
- B. You should not lift any thing greater than 5-10lbs for 6-8 weeks.
- C. It will take you 2-4 weeks to fully recover.

What are the complications of the splenectomy surgery?

- 1. Post splenectomy sepsis (see section titled “What are the effects of having no spleen” below);
- 2. Injury to bowel may occur during the insertion of instruments in a laparoscopic procedure;
- 3. Pancreatic leak requiring drainage;
- 4. Bleeding

What should I expect immediately after surgery?

After your discharge from the hospital your diet should consist of foods that are nutritious and that you tolerate well.

1. **Pain:** You will be given a prescription for pain medication (pills). You should fill this and take them as needed to keep you comfortable. Contact your surgeon's office if you find that the medication is not controlling your pain.
2. **Constipation** is not uncommon after surgery. Pain medications can be constipating. If you are taking pain medication you should also be taking a stool softer. This can be purchased over the counter at your local pharmacy. Also, remember to eat fruits/ vegetables and grains as well as drink 8 glasses of water a day to avoid/alleviate constipation. If it persists, contact your surgeons' office for advice. You may also make see one of the UM Rogel Cancer Center's dietitians who can offer a plan to manage and/or prevent constipation. They are available at (734) 936-6000.
3. **Shoulder pain:** Some patients experience pain in their shoulder after a laparoscopic splenectomy. This is common and will go away in 1-2 weeks on its own. You can take your pain medications as prescribed and notify your surgeon if you do not have relief or if it becomes unbearable.

When should I contact my surgeon?

Notify your surgeon's office if you experience the following after surgery:

1. Temperature 101° Fahrenheit or higher
2. Redness or drainage around your incision(s)
3. Significant increase in abdominal pain or discomfort
4. Changes that concern you or in your overall health such as nausea, vomiting, chills, profuse swelling, diarrhea, constipation, inability to urinate, shortness of breath.

What are the effects of having no spleen?

The spleen helps your body rid itself of certain kinds of bacteria called “encapsulated organisms”. These can cause severe infections. Without a spleen you will be at a greater risk for this type of infection, but remember that these are not common infections. The risk of this type of infection is very low (< 1%) but it is lifelong. Your risk of infection is highest in the first 2 years after a splenectomy. Children also have a higher infection risk after a splenectomy.

Vaccinations help the body fight several kinds of serious infections. You will be vaccinated before surgery and after surgery to protect against these infections:

1. **Pneumococcus vaccine (Pneumovax[®]):** This is used to help prevent Pneumococcal infections that can cause pneumonia, meningitis and severe blood infection.

You will receive one Pneumovax[®] vaccine prior to surgery, and then will repeat it every 5 years

2. **Haemophilus B vaccine (Hib[®]):** This is used to help prevent Haemophilus influenzae type B infections that can cause meningitis, pneumonia, pericarditis (infection around the heart), and septic arthritis (bone and joint infections).

You will receive one Hib[®] vaccine prior to surgery if you have not received this vaccination in the past

3. **Meningococcal vaccine:** This is used to help prevent meningococcal infections such as meningitis and bloodstream infections.

If you have never had the Meningococcal vaccine, you will need 1 prior to surgery, another vaccination 2 months later and then a repeat vaccination every 5 years.

What precautions should I follow once my spleen is removed?

Patients who have no spleen have to pay more attention to infections and preventive care for the rest of their life. Talk to your doctor about how to protect yourself from infection. Always alert your doctors, dentist and other health care workers that you have no spleen. We recommend the following:

1. Repeat your vaccinations (Pneumovax, Hib, and Meningococcal) every 5 years as described above. Keep a record of the vaccinations you receive and the dates you received them. All UMHS clinics can provide you with a print record of the vaccinations you are given in the clinic.
2. Call your doctor at the first sign of infection, such as fever, chills, cough, abdominal pain, severe sore throat or other symptoms of illness.
3. Go immediately to the Emergency Room if you have a temperature of 102°Fahrenheit or greater.
4. If you are going to be somewhere that is more than 6 hours away from a doctor, you should:
 - contact your doctor ahead of time to receive a prescription for antibiotics,
 - bring these antibiotics and a thermometer with you,
 - begin taking the antibiotics if you have a temperature of 101°Fahrenheit or greater.

This document is not intended to take the place of the care and attention of your personal physician or other professional medical services. Questions about individual health concerns or specific treatment options should be discussed with your physician.

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