This information is about ascites, which can be a symptom of many types of cancer.

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Inside the abdomen there is a membrane called the peritoneum, which has two layers. One layer lines the abdominal wall and the other layer covers the organs inside the abdominal cavity. The peritoneum produces a fluid that acts as a lubricant and allows the abdominal organs to glide smoothly over one another. Sometimes too much of the fluid can build up between the two layers, and this is called ascites.

**Causes of ascites**

Ascites is a symptom of many types of cancer and can also be caused by a number of conditions, such as advanced liver disease. The types of cancer that are more likely to cause ascites are cancer of the breast, lung, large bowel (colon), stomach, pancreas, ovary, womb (endometrium) and the peritoneum.

There may be several reasons for ascites:

- If cancer cells have spread to the lining of the abdomen, they can irritate it and cause fluid to build up.
- If the liver is affected by cancer cells, this may block the circulation of blood through the liver, which can lead to a build-up of fluid in the abdomen.
- If the liver is damaged, it may produce less blood protein. This may upset the body's fluid balance, which causes fluid to build up in the body tissues, including the abdomen.
- Cancer cells can block the lymphatic system. This is a network of fine channels that runs throughout the body. One of its functions is to drain off excess fluid, which is eventually gotten rid of in the urine. If some of these lymphatic channels are blocked, the system can't drain efficiently and fluid can build up.

**Symptoms of ascites**

The symptoms of ascites can be very distressing. The abdomen gradually becomes very swollen and distended, which can be uncomfortable or painful. Ascites can also make it difficult for you to get comfortable, sit up or walk. It can make you feel very tired (lethargic) and breathless. It may cause feelings of sickness (nausea) or make you be sick (vomit). You may also suffer indigestion, reduced appetite, a feeling of fullness and sometimes constipation.

**Ascitic drainage**

In order to relieve symptoms, the treatment of ascites involves slowing the build-up of the fluid and putting a tube into the abdomen to drain it (known as paracentesis).
The ascitic tube (drain) is usually inserted by a doctor. This procedure can be done in the ward or outpatients clinic. Sometimes the drain is put in while you are having an ultrasound scan, which helps show the doctor where to position the drain.

Once you're lying down comfortably, the skin in the area where the drain is to be inserted is cleaned. The doctor then gives you an injection of local anaesthetic to numb the area and stop the procedure from being painful.

The doctor makes a very small cut in the skin of the abdomen and inserts a thin tube called a cannula, which is attached to a drainage bag. The ascitic fluid drains out of the abdomen and collects inside the drainage bag. The cannula may be held in place with a couple of stitches and covered with a dressing.

The length of time that the drainage tube needs to stay in place for depends on the amount of fluid that needs to be drained off. Sometimes a small amount of fluid can be drained in the outpatients clinic. If there is a large amount of fluid however, the procedure may need to be carried out in hospital under the supervision of the doctors and nurses. The drain may stay in place for up to 24 hours, although occasionally it may stay in longer.

It's possible for the ascitic fluid to build up again, and drainage may need to be carried out more than once. If the fluid builds up again quickly, your doctor may insert a tube known as a catheter into the abdomen. The catheter is used to drain fluid from the abdomen and may be left in place for several weeks. Your doctor will be able to give you more information about this.

Possible problems with ascitic drainage

Usually the fluid will be drained off slowly, as a sudden release of pressure in the abdomen can cause a drop in blood pressure. A litre of fluid may be drained safely as soon as the drain has been inserted. After this, the drainage will usually be done more slowly. Your blood pressure will be checked during the procedure.

The ascitic drain can become blocked. This can sometimes be cleared by changing your position or sitting upright. Occasionally the tube may need to be replaced.

The drain can sometimes become infected. You will have your temperature taken regularly, as a high temperature can be a sign of infection.

When the drain has been removed there may be a leakage of fluid from the drain site until the hole heals. The hole will be stitched together and the site will need to be covered with a dressing or drainage bag until the leakage has stopped. Usually the stitches are taken out after about a week.

Other methods of dealing with ascites

The doctors may prescribe a water tablet (diuretic) called spironolactone (Aldactone®). This can make you want to pass more urine than normal, but it helps by slowing down the build-up of the ascitic fluid.

A peritoneo-venous shunt (sometimes called a LeVeen shunt) may be considered. A shunt is a plastic or silicone rubber tube that is placed into the peritoneal cavity. It drains the ascitic fluid directly into a large vein. This is a more complicated procedure and usually needs to be done under a general anaesthetic. You will also need intensive monitoring for the first 24-48 hours in a high dependency unit (HDU) at the hospital in order to check that the shunt is working properly. The shunt stays in permanently. Shunts are used less commonly than ascitic drainage.

References and thanks

This section has been compiled using information from a number of reliable sources, including:

- Davis M et al. Supportive Oncology. 2011. Elsevier Saunders
Thanks

Thank you to Dr Nicum Shibani, Consultant Medical Oncologist, and all of the people affected by cancer who reviewed this edition. Reviewing information is just one of the ways you could help when you join our Cancer Voices network.

Content last reviewed: 1 January 2013

Next planned review: 2015

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