**SUBPHRENIC ABSCESS**

**GENERAL INFORMATION**
The diaphragm is a sheet of muscle about as thick as ten sheets of this paper. It separates the heart and lungs in the chest cavity from the organs in the abdominal cavity. A *subphrenic abscess* is a localized collection of pus right under the diaphragm and touching it (Fig. 1).

![Diagram of the human abdomen showing the diaphragm, liver, and other organs](image)

**COMMON SIGNS AND SYMPTOMS**
The signs and symptoms of a subphrenic abscess are caused by the effects of the pus on the diaphragm and surrounding structures. They can include some of the following:
- Fever that goes sharply up and down ("spikes") along with shaking chills and sweating.
- Fast pulse.
- Pain, tenderness, and some redness of the skin on the left or right side of the abdomen.
- Pushing up of the diaphragm because of the pus under it.
- Chest pain.
- Shortness of breath.
- Fluid in the chest.
- Hiccoughs.

**DIAGNOSIS**
- The diagnosis can often be made by taking a careful history, doing a thorough physical examination, and evaluating the laboratory reports.
- In most cases, subphrenic abscess occurs as a complication of an abdominal operation or is due to a hole in the intestine caused by an illness or injury.
- You will have some or all of the following tests.
- *Chest x-ray:* This may show an elevation of the diaphragm, fluid in the chest, or an inflamed lung just above the diaphragm or other problems under the diaphragm.
- *Ultrasound:* Harms sound waves are aimed at the diaphragm. The sound waves bouncing back (the echoes) from this area are seen as a picture on a screen. Ultrasound is a convenient and painless way to examine organs and tissues inside this area of your body.
- *CT scan (computed tomography scan):* These special x-rays are taken by a machine that is shaped like a huge doughnut. You will lie on a table inside the "doughnut" and x-rays are taken as very thin slices through the area of the diaphragm. This makes it possible to see the fine details in and around the diaphragm.
- *Aspiration:* A needle may be inserted in the presumed abscess to determine its nature and to take a sample from it or remove all of it.

**TREATMENT**
If a subphrenic abscess is not treated or does not respond to the treatment given, there is a high risk of death. The treatment can be given in two ways:

**Catheter Drainage**
- You will lie on a table and be given medicine to make you feel drowsy.
- The skin over the abscess will be painted with an antiseptic solution and made numb.
- A thin plastic tube will be placed through the numbed skin and into the abscess cavity and as much of the pus will be removed as possible.

**Advantages of This Method**
- An operation and incision are not necessary.

**Disadvantages of This Method**
- The pus may be too thick to come out through the tube.
- There may be more than one cavity (like soap bubbles) and it may not be possible to drain all of them.
- It doesn’t correct the cause of the abscess.
- This method is not effective if the abscess is caused by a fungus.
- There is a risk that the needle may pass through noninfected areas and infect them also.

**Operation**

**Advantages of This Method**
- Everything can be seen clearly and cleaned more thoroughly and some risks avoided.

**Disadvantages of This Method**
- It is an operation.

After careful consideration of all factors, the recommendation is that you have an open drainage of your subphrenic abscess.

**PREOPERATIVE PREPARATION**
- Do not eat or drink anything for 8 hours before the operation.

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• You may be given medicine that will make you feel drowsy before you are brought to the operating room.

☐ OPERATION
• You will be asleep for the operation.
• The incision will be just under the last ribs and over the area of the abscess.
• The operation usually takes about 2 hours.

POSTOPERATIVE CARE
• You will be taken to a recovery room and observed. When your blood pressure, pulse, and breathing are stable, you will be taken to a regular hospital room.
• There will be a plastic tube coming from your abdomen to the outside to drain additional fluid present.
• You may have a thin plastic tube in your nose for a day or two.
• That evening you will be helped to sit up in bed and on the next day to get out of bed.
• You will be given an incentive spirometer. Breathing into this as you are instructed will help you expand your lungs and reduce the risk of developing pneumonia.
• Pain will be controlled with medicine.
• Arrangements will be made for your medicine, follow-up office visit, and stitch removal.
• As with any operation, complications are always possible, some of them serious. With this type of operation, they can include bleeding, the persistence or recurrence of the abscess, bowel obstruction, pneumonia, fluid in the chest, liver abscess, wound infection, and possibly others.

☎ HOME CARE
• You may walk about as you wish, even climb stairs, but don’t overdo things.
• Take medicine as prescribed for your pain.
• Be certain to take any antibiotics prescribed for you.
• Unless instructed otherwise, you may shower if you wish with any dressings on or off.
• There may be narrow strips of tape across the incision. It’s all right if they get wet, they will be removed in the doctor’s office.
• After you dry yourself, replace any dressings with clean, dry ones.
• Arrangements can be made for a home visiting nurse if one is needed.
• Do not drive until we talk about it during your follow-up office visit.
• You may return to work when you feel up to it, but let’s first talk about it during a follow-up office visit.

☎ CALL OUR OFFICE IF
• The incision becomes red or swollen, or there is drainage from it.
• You develop a temperature higher than 101°F.
• You have any questions.