

# **Informed Consent – Liver Resection**

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Your symptoms and physical examination results suggest that you have a problem with your liver that requires removal of a segment or portion of this organ. The need for resection of the liver is determined after reviewing imaging studies, such as CT scans and MRI images of the liver, and blood tests that may indicate the nature of the liver problem.

After careful consideration, we recommend that you be treated with liver resection.

## **Description of the Procedure**

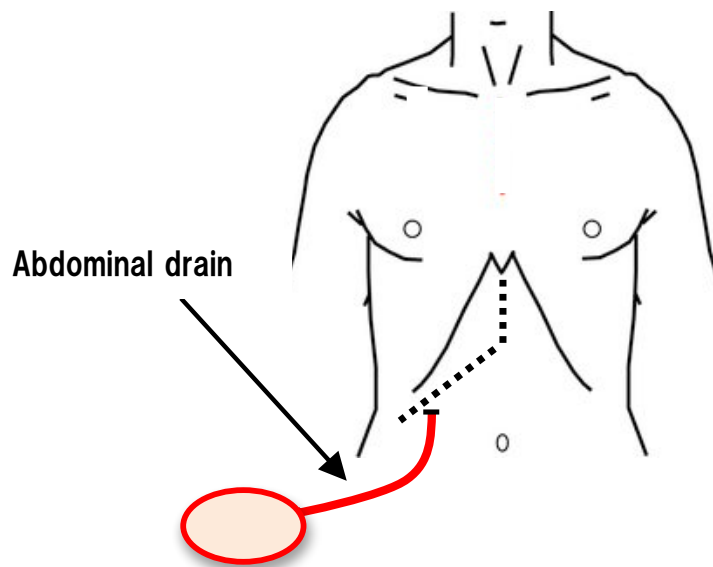
An incision is created in the midline of the upper abdomen from the ribcage down to the umbilicus (belly button). The incision is expanded to produce a reverse “T” shape in the form of a Mercedes Benz logo as needed in order to adequately visualize the liver. The remainder of the abdomen is thoroughly explored to exclude the presence of cancer elsewhere. Portions of the liver are excised as required to completely remove all of the disease. The gallbladder is often removed. Drains are placed, and the abdomen is closed. If the tumor is not too large

and there is no history of prior surgery in the upper abdomen, laparoscopic-assisted liver resection is performed in our institute.

This surgery is usually performed to treat cancer; however, it is also rarely performed on an elective basis to treat infections in the liver and attempt to repair damage resulting from previous trauma to the liver.

There are multiple ways in which the liver can be resected, including: a) wedge resection—removal of a wedge of the liver, b) segmentectomy—similar to wedge resection but following the anatomic boundaries of the liver, c) left lateral segmentectomy—removal of the entire left lateral segment of the liver, d) right or left hepatic lobectomy—removal of the entire liver to the right or left of the bed of the gallbladder and 3) trisegmentectomy—removal of two-thirds of the liver.

## Abdominal Incision



## Additional Procedures That May Be Performed During Surgery

It is impossible to accurately predict what we will see during surgery. Due to the extent of resection of the liver, the operation is usually confined to this procedure, unless an emergency situation arises that demands other actions.

## Alternative Treatments

1. *Chemotherapy alone* – Liver resection, when performed to treat cancer, will only be completed if the surgeon has sufficient evidence that no cancer exists elsewhere in the body.  
  
If additional sites of cancer are detected, systemic chemotherapy is the most appropriate treatment.
2. *Hepatic artery infusion catheter placement* – On rare occasions, a hepatic artery catheter is placed to facilitate the administration of chemotherapy directly to the liver and not other organs of the body. This procedure is ineffective for curing most cancers.
3. *Radiofrequency ablation* – If less than three tumors are present in the liver, the lesions can be destroyed with probes that kill the tumors using radiofrequency ablation. This procedure is considered only if the patient is not a candidate for resection due to liver failure.

## **Benefits of Treatment**

The benefits of hepatic resection include the possibility for a long-term cure of the cancer.

However, a cure cannot be guaranteed, and long-term curative effects are achieved in only a certain proportion of patients undergoing this procedure. Surgery performed to treat infectious disease or trauma is usually curative.

## **Risks/Complications of Treatment**

The treatment risks fall into two categories: those that can occur during any surgery performed under anesthesia and those that are specific to liver resection. During any medical procedure, it is impossible to predict all possible complications. Fortunately, complications are the exception rather than the rule. Every reasonable effort is made to prevent complications.

The most common complications are:

### **Possible complications of major surgery**

1. *Bleeding* – Bleeding can occur any time the skin is cut. The need for multiple blood transfusions is typical. While uncommon, it is possible to develop uncontrolled bleeding during the surgery that results in death. This procedure will not be performed in patients who refuse blood transfusions.
2. *Infection* – We take special care to prevent infections; however, infection is always a possibility and may require additional surgery if an abscess develops.
3. *Reactions to medications* – Reactions vary, ranging from minor rashes to possible death.
4. *Reactions to anesthesia and surgery* – Such reactions can manifest as a sore throat, pneumonia, blood clots, heart attack or potentially death in rare cases.
5. *Poor wound healing* – This involves breakdown of the incision.

6. *Deep vein thrombosis and pulmonary embolism* – Surgery can increase the risk of the formation of blood clots in a major vein in your leg or arm. This is a serious condition called deep vein thrombosis and pulmonary embolism. Your caregiver may have you wear compression/pressure stockings. These are tight elastic stockings that place pressure on your legs after surgery. The pressure is highest in the toes and decreases moving toward the thighs. Compression/pressure stockings help to push the blood back to your heart and prevent clots from forming.

### **Possible complications of hepatic resection**

1. *Hepatic failure* – Removal of portions of the liver may lead to the inability of the rest of the liver to compensate, resulting in jaundice, ascites, hepatic failure and sometimes death.
2. *Injury to the bile ducts and biliary fistula formation* – Because the procedure is performed close to the bile ducts, injury to these ducts (while uncommon) is possible. Such injury may not be detected during the initial surgery, necessitating further surgery to correct the damage. Usually, biliary fistula forming from the cut surface recover with conservative treatment after several weeks.

3. *Bowel or abdominal organ injury*— Injury to a portion of the intestines, pancreas or other abdominal organs is uncommon, but possible. Should this occur, we will repair the injury. Reoperation may be required.

### **Anticipated Recovery/Expected Rehabilitation**

Recovery is quite variable, depending on the individual. Hospitalization lasts from 10 days to one month. After that time, full recovery sufficient to permit one to return to work or normal activities is quite variable, with between one and three months required before the individual is able to eat well and carry out normal activities. If further treatment, such as chemotherapy or radiation, is required, the return to normal activities will be delayed.

## **Consent for Treatment**

**I understand my condition to be a mass in the liver and am aware of its risks if left untreated. I have read and understand the above explanation of the operation required. My surgeon has answered my questions, and I choose to proceed with surgery.**

**I understand that every operation may yield unexpected findings. I give the surgeon permission to act on his or her best judgment when deciding to remove or biopsy tissues that appear to be diseased and understand that complications may arise from such procedures.**

**I understand that while most people undergoing hepatic resection benefit from this operation, I may not. My condition may not improve and may instead worsen. No absolute guarantees can be made.**

**Before and after surgery, unless otherwise requested in writing by me, visitors whom I invite to attend the surgery will be informed of my surgical findings, surgical status and anticipated recovery issues for effective communication. Due to the effects of anesthesia, I may or may not remember these important details.**

PRINT NAME \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_



WITNESS \_\_\_\_\_ DATE \_\_\_\_\_

SURGEON \_\_\_\_\_ DATE \_\_\_\_\_

RELATIONSHIP TO PATIENT IF SIGNED BY A LEGAL GUARDIAN \_\_\_\_\_

**I waive the right to read this form and do not wish to be educated and informed of the treatment risks. Nonetheless, I understand the need for this surgery and grant permission to the surgeon to proceed on my behalf.**

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_