ASCITES
Fluid in the abdomen (ascites) is a common problem in patients who have severe liver disease and are waiting for transplants. Patients may notice that their clothes are fitting more tightly or that their bellies seem to be swelling. They may gain weight or have swollen ankles. Treatments for this fluid may include a very low salt diet and water pills (such as Aldactone® or Lasix®). Sometimes, these treatments do not work. In this case, your doctor may want to drain the fluid from your stomach. This is called paracentesis. A tiny needle is put through the skin of your stomach to allow the fluid to drain off. This causes only a little discomfort and can give great relief.

PERITONITIS
An infection within the fluid (ascites) in the abdomen is a serious problem for patients with liver disease. This infection is called peritonitis. You may get a fever, stomach pain, or have a rapid buildup of fluid in the abdomen. Some patients may have only nausea and feel like they have the flu. If you have any of these symptoms, you must call your doctor or nurse at once or go to the emergency room. This can be a life or death emergency and should not be overlooked. Peritonitis can be treated if it is caught early. Intravenous antibiotics may be needed for 7 to 10 days. If you have had peritonitis once, your doctor may want you to have a daily antibiotic to take by mouth once you are discharged.

BLEEDING
Patients with liver disease can have bleeding for many reasons. Patients may bleed from anything that anyone else would bleed from such as ulcers or hemorrhoids. They can also have bleeding from enlarged veins near their liver. This will happen in nearly one third of patients with liver disease at some time and could happen over and over again. When bleeding starts, patients will either vomit blood or pass blood in their stool. This is a life or death emergency, and you should tell your doctor or nurse at once. They will tell you what to do and where to go. Do not delay in calling the hospital if you are bleeding. Go to the nearest emergency room for treatment. Do not drive yourself. If you are feeling weak or dizzy, call an ambulance.

There are many treatments for bleeding from enlarged veins. Endoscopy with injections to clot the blood or using rubber bands is the first choice. TIPS may also be needed to help control the bleeding or keep it from starting again.

Patients with liver disease are at risk for ulcers of the stomach too. For this reason, you should not take any aspirin, Motrin®, ibuprofen, Naprosyn®, Aleve®, or Nuprin®. You should not take any drugs that have one of these compounds in them without checking with your doctor first.

ENCEPHALOPATHY
When the liver is damaged, it cannot clear toxins (poisons) from the bloodstream very well. Toxins in the blood can cause severe confusion. The medical name is
encephalopathy. Early signs are being forgetful, confused, or agitated. You may notice problems with sleeping or a feeling that you are just not yourself. At the extreme, you may become confused and not know where you are, and you may even go into a coma. There are many things that may trigger this problem:

- Bleeding
- Infection
- Dehydration (not drinking enough fluid)
- Eating the wrong foods
- Medications
- Chemical changes in the blood
- Not taking the medications as prescribed

It is treated by correcting everything listed above. Protein in the diet is cut back, as this plays a role in confusion. Drugs, either lactulose or neomycin, are also given to try to treat the confusion.

Several drugs may make this condition worse including narcotics and sleeping pills. You should not take any of these drugs, even if told to by another doctor, until you check with your transplant doctors.

**FATIGUE**

Being very tired (fatigue) is a common problem facing patients while they wait for transplant. You may have sleep problems and not be able to get a good night's sleep even though you are very tired. Most patients have some sleep problems before the transplant. It does improve after the transplant, and many patients are able to return to normal activities and work. The best advice is to try to keep a day/night schedule if you can. Don't nap, so you can increase your chance to rest at night. If you need something to help with sleep, discuss it with your doctor. Light exercise is suggested in order to keep good muscle tone. It may also improve your sense of well-being and reduce fatigue.

**WEIGHT CHANGES**

Weight changes often take place during the waiting period. Weight may increase because of the buildup of fluid or loss of muscle mass. You may see your face and arms getting thin even if your weight is not changing. Nutrition is important for keeping your muscle strength (see Nutrition section). Report your weight changes to your doctor.

**DEPRESSION**

Again, the waiting period is hard for all patients and their families. It can be frustrating and discouraging. It is natural to have these feelings when you are dealing with chronic illness. It is helpful to discuss your feelings with your family members and doctor. Some people may need medical treatment for depression during this period. You should express your feelings so that you can get treatment. Many patients find that the support group is a place where their concerns and fears may be shared. You are not alone in how you feel. The transplant team can suggest many ways to cope with your feelings while you wait.
GENERAL HEALTH GUIDELINES

DENTAL CARE
It is important to take good care of your teeth and gums. We suggest that you floss and brush often using a soft bristle toothbrush and see your dentist every 6 months. When you have dental work done – even teeth cleaning – you will need to take an antibiotic.

PROTECTION FROM THE SUN
Because people who have had transplants are more likely to get skin and lip cancers, you need to protect yourself from the sun.
1. Always wear sunscreen lotion and lip-gloss with a sun protection factor (SPF) of at least 20 to 25.
2. Wear sunglasses when outside during the day to protect your eyes.
3. Wear clothing that protects you, such as hats and long-sleeved shirts.
4. Tell your doctors of any changes in your skin such as new raised areas, changes in warts or moles, sores that don’t heal, or new colored areas.
5. Stay away from tanning salons, booths, beds, reflectors, and lamps.

CANCER SCREENING
After a liver transplant, you may have a higher risk of cancer – mostly skin cancers – than the average person. Therefore, it is suggested that you see your primary doctor to be screened for cancer. We suggest screening for skin cancers, cervical cancer with PAP smears, breast cancer with regular exam and mammograms, prostate cancer with blood work, and physical examination. We know that many patients may need more screening than that, depending on their age, sex, and risk factors. These tests may include looking in the colon, chest x-rays or even CAT scans and bone scans. Talk with your doctor to see what you may need. Remember that preventing and finding cancer early are the two best weapons we have against cancer.

IMMUNIZATIONS AND SHOTS
You should talk with your transplant team about immunizations and shots. You must never get any kind of live virus vaccines after the transplant including smallpox, yellow fever, measles, mumps, rubella, and oral polio vaccines. You should also stay away from children who have just gotten their shots. You can get shots that use “killed” viruses such as the flu shot, the TB test (Mantroux), the pneumonia, and H. Influenza B Vaccines. A tetanus booster is good for 10 years. If you have a new liver transplant, but you also have young children who need their shots, call the transplant office. All persons waiting for a transplant will get the hepatitis B vaccine unless:
- They already have hepatitis B
- They have already been vaccinated for this

After you leave the hospital, you will be asked to go to nutrition classes. The focus of the classes is to work on any nutrition problem you could have after transplant and to provide guidelines on how to have a healthy diet and life style.
RETURNING TO WORK
The best time for you to return to work will depend on what type of work you do. If you did not work before your transplant because of your disease, the goal is to get you back into a normal life again.

SMOKING
Smoking is strongly discouraged. It will damage your heart as well as your lungs and blood vessels. Smokers are at high risk for lung cancer, which can be deadly.

PETS
Animals can carry diseases that could be harmful if they are given to a person with a transplant. Check with your doctors about your house pets and caring for them.

TRAVEL
Contact the transplant team to see if it is safe for you to have certain medicines you might need if traveling abroad.

SEXUAL ACTIVITY
Once you are feeling well and strong enough, having sex is fine. Many men are impotent when their liver is in failure. Being weak and tired also adds to this problem. After a successful liver transplant, potency often comes back. Women whose periods stop during their liver disease will often see them return a few months after the transplant. Women may still be ovulating, even if their periods are not normal. Therefore, it is possible to get pregnant. Here are general guidelines:

- If you are of reproductive age and have a sex life, birth control must be used.
- IUDs can cause infection in a transplant patient.
- All women who have transplants must have a PAP smear and breast exam once a year. Women over the age of 50 will also need a yearly mammogram.

CHILD BEARING
The decision to get pregnant and bear a child is very difficult. There are many things to think about. If you are a woman who has had a transplant, you should wait at least two years after the transplant. At this time, the doses of your antirejection medications should be low. There are many women who have normal children after a transplant. Many men who have had a transplant have become fathers to normal children.

Should you and your spouse want to have children of your own, you will need to talk this over with your transplant doctors well ahead of time.

ALCOHOL
Alcohol will harm the liver and can change the way prescribed medicines work. We ask that you do not take any alcohol or alcoholic beverages. Alcohol is broken down in the liver and can get in the way of tasks the liver must do to keep you alive and well. It is your responsibility, as a person who has had a transplant, to protect your new liver and stay away from any alcohol.
POST-TRANSPLANT NUTRITION
It is very important to have good nutrition after your transplant. It will help you recover from your operation and help you keep a healthy transplant. Right after your transplant you will need extra nutrition to replace the weight you may have lost while you were ill. Long-term, you will need a healthy diet to maintain your weight and keep you from gaining excess pounds.

There are many long-term problems with nutrition of which you need to be aware, including the following:
- Gaining too much weight
- High blood pressure
- High blood cholesterol and triglyceride levels
- Diabetes
- Bone loss

COMMON SENSE GUIDELINES
1. **Limit your servings at each meal**; don’t eat too much
2. **Stay away from excess fat**. Fats are higher in calories than either protein or carbohydrates. Use low-fat margarine, mayonnaise, and salad dressings.
3. **Stay away from excess sweets**. A good substitute is fruit.
4. **Choose low-fat snacks** such as vegetables, fruit, nonfat yogurt, unsalted pretzels, un buttered popcorn, or a bagel.
5. **Be active**. Exercise after a transplant is very important. It seeps your recovery and helps you keep your weight down. Start slowly. Walking is a great and safe form of exercise.
6. **Control your weight**.
7. **Control your salt intake**.