### THE DAILY CHECKUP BY KATTE CHARLES

# WLife after liver disease

# Transplants can give patients with cirrhosis a brand-new start, but supply of liver donors is short

## The specialist: Dr. Sander Florman on liver

As Director of the Recanati/Miller Transplantation Institute, Sander Florman is a surgeon who specializes in abdominal transplant and hepatobiliary surgery. His team does more than 125 liver transplants a year on children and adults.

#### ► Who's at risk

The liver is the largest organ in the body and is responsible for literally hundreds of vital functions, like metabolizing drugs and cholesterol and regulating protein synthesis. "The liver is the only organ that can regenerate itself, but certain diseases can override that capacity," says Florman. "Once you damage it too much, it either can't heal or it heals with scar tissue - the end result of which is called cirrhosis." Cirrhosis, also called end-stage liver disease, is the main underlying indication for liver transplantation.

Unfortunately, the number of cirrhotic patients is on the rise. "The number of liver-related deaths in 1998 was under 4,000," says Florman. "We expect that number to triple in the next 20 years to over 13,000 deaths in 2030." There were 30,000 new cases of liver cancer in 2003.

The majority of cirrhosis cases are caused by hepatitis C, a blood-borne virus without a cure. "Until 1990, blood banks didn't test for hepatitis C, and hundreds of thousands of Americans were infected," says Florman, "Now, more than 4 million Americans are affected, along with 3% of the world's population." Today, there is less than a one in a million chance of getting the virus from a blood transfusion. Other causes of hepatitis C include IV drug use, needle stick injuries And

Liver disease progresses slowly over time. "It's usually about 20 years between infection and the development of symptoms," says Florman. For some patients, the repeated injury to the liver can cause cancer. "You can also form a tumor, which 90% of the time comes from underlying liver disease," says Florman. Another increasingly common cause of liver disease is nonalcoholic steatohepatitis, or NASH for short. "Effectively, NASH means fatty liver. ,There are three major risk factors for NASH: obesity, diet and hyperlipidemia," says Florman.

#### ► Signs and symptoms

Liver disease has a long latency period, so many people are asymptomatic for years. "During the latency, the more common signs would be abnormal blood liver chemistries," says Florman. "People either get routine blood work and see abnormal liver numbers, or they start developing some symptoms." Because liver disease grows so slowly, it's essential for patients to be followed by a hepatologist who can help them manage the

#### What you can do.

#### Go to a good transplant center.

Your hepatologist will usually refer you to a center; it's essential to go to a hospital that does transplants all the time and has a dedicated team of specialists.

#### Get informed.

The United Network for Organ Sharing, or UNOS, has great information for transplant recipients and donors (www.unos.org).

#### Modify your diet.

"Fatty liver" is an increasing common cause of liver disease - another reason to cut fat intake and talk to your doctor about modifying your diet.

#### Protect your liver.

Liver disease means no more alcohol, and some nonsteroidal medications, like Tylenol, must be taken only very carefully.



Some people go from having no symptoms to suddenly developing a cancer in their liver; others start vomiting blood, retaining fluid, feeling itchy or experiencing forgetfulness. Another common warning sign is jaundice, when the skin or eyes turn vellow as the result of dysfunction of Bilirubin metabolism.

"We do have symptomatic treatments in some cases - like diuretics to handle the fluid," says Florman. "Decompensated cirrhosis is when we can't control the symptoms any longer.'

#### ► Traditional treatment

For people facing end-stage liver disease, the biggest problem remains a lack of donated livers. "The fact is that there are far more people who need livers than livers are available," says Florman. "Each year, 10%-15% of people waiting for a liver transplant will die without receiving one." Currently, almost 20,000 Americans are waiting for a liver transplant.

There are two ways to get a liver transplant: a deceased donor or living donor, "A deceased donor is somebody who is braindead, usually as the result of car accidents, trauma, stroke, and the family donates the organs," says Florman. "A living donor is somebody close to the patient who is willing to give up a piece of their liver." Living donor transplant can be done very safely because the liver regenerates. "For babies, we take about 25% of an adult's liver, and for another adult, we have to take about 50%." savs Florman.

Liver transplant is one of biggest surgeries people can have. "The transplant takes four to six hours in the operating room, followed by two to three days in ICU, and five to seven days in the hospital," says Florman. "We have to remove their old liver and attach the new liver with four to five major connections, using very small sutures with the aid of →microscope glasses." Patients often feel the effects of having a healthy new liver almost immediately.," says Florman.



But the process of getting a liver transplant doesn't end when you leave the hospital. All transplant recipients must agree to take immunosuppressant medications for the rest of their life. "You have to manipulate the body into not rejecting the foreign liver," says Florman, "So your transplant team is a team for life," Most patients who receive a liver transplant see their health improve radically. There are NBA players and Olympians who are back playing their sports. "The majority of organ recipients go back to fully functioning lives," says Florman. "Anything you can think of, you can do after a liver transplant."

#### ▶ Research breakthroughs

Now that people are living longer post transplant, doctors are investigating ways to increase their longevity and improve their quality of life. "We're always looking for better medications, because many people are living more than 10 years with transplantation," says Florman. One of the greatest limitations facing patients with end-stage organ disease today is still the lack of donated organs available. "We're always looking for ways to increase donation," says Florman. "We've been pushing living donation since the first was done in the early '90s.'

#### ▶ Questions for your doctor

Once you're diagnosed with liver cancer, a key question is, 'What are my treatment options?" Your doctor should explain the different surgical options and transplant. When you are weighing your decision, be sure to ask, "When can I get back to normal life after transplantation?" Three months is the answer for most people. "The goal is to restore people to as close to normal life after transplant," says Florman. "They look just like you and me."