

Mayo Clinic William J. von Liebig

Transplant Center

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Illinois police officer back in the squad car after successful liver transplant

Laughter filled the air during roll call one morning in the Peoria, Ill., Police Department as several police officers lined up for a head shave. Their cause, however, was no laughing matter. Their bald heads brought attention to the plight of their colleague, Sgt. Sam Hoskins, who was waiting for a liver transplant at Mayo Clinic.

A seven-year wait

Hoskins knew well ahead of time that he would need a liver transplant. As a child, he was diagnosed with ulcerative colitis, a disease that causes chronic inflammation of the digestive tract. He later developed an associated condition called primary sclerosing cholangitis (PSC). In PSC, the bile ducts may become inflamed and eventually obstructed. Over the seven years since he was diagnosed with PSC, the obstruction led to increased scarring (cirrhosis) which eventually caused his liver to fail.

Hoskins, now 54, was advised to begin researching medical centers for liver transplant programs about five years ago.

"My doctor gave us the names of three different medical facilities," says Hoskins. "We chose Mayo Clinic because we had heard so much about it and because of their success rate with liver transplants."



Sgt. Sam Hoskins is happy to be back at work after a successful liver transplant.

Hoskins and his wife, Lil, would soon become familiar with the seven-hour drive from Peoria to Rochester. Besides multiple testing, he had a shunt inserted into his liver to redirect blood and help support the liver temporarily.

"We went back and forth many times," says Hoskins. "Then, one day I had a terrible day at work and my buddies told me to go home. I was listed for transplant soon afterwards."

"Put that toast down!"

The Hoskins's stayed in a Rochester hotel for four weeks, waiting for the call.

"Lil was planning to go home to check on our 15-year-old son, Chad," says Hoskins. "We got the call at breakfast and I had a piece of toast in my hand. The first thing Lil told me was to put that toast down." Coincidentally, one of Hoskins' police buddies drove from Peoria that day to surprise him with a visit.

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Illinois police officer back in the squad car after successful liver transplant

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“He stayed all that day,” says Hoskins. “I can’t say enough about the support I got from the Police Department. Besides a fundraiser — which also inspired the public to send donations after they saw it on TV — lots of my buddies worked in my place when I ran out of sick time.”

Feb. 22, 3 a.m.

Transplant surgeon Charles Rosen, M.D., visited Hoskins the evening of Feb. 21, and explained that he was going home to sleep because the donor liver was coming from another state and wasn’t expected to arrive until 2:30 a.m. Liver transplantations can take up to 10 hours. Since transplants are never delayed, they require surgeons to operate around the clock.

At 3 a.m., Feb. 22, the moment that Hoskins and his family had longed for arrived. The transplantation surgery went smoothly.

“It didn’t hurt that much and my nurse, Mary Miller, kept us laughing,” says Hoskins. “Chad was a great help, too. He wouldn’t leave me for two days — they even brought a cot in for him to sleep on.”

Two days after his transplant, a determined Hoskins walked from the intensive care unit to his room with only a walker to help him. Two weeks later, he left the hospital and, two weeks after that, it was time to go home.

A transforming experience

Hoskins, who has a reputation for his willingness to help other people, says his illness and the transplant journey have increased his empathy for people in trouble.

“I was always the one to look after people but the shoe was on the other foot throughout this experience,” he says. “I saw what it was like to be the one with the problem. Now when I go out on calls, I see human beings with problems, rather than crimes that need to be solved. It’s really changed the way I look at people.”

Getting ready to celebrate 30 years of service

Next year, Sgt. Hoskins will celebrate 30 years of service in the Peoria Police Department. His illness interrupted his two special duties — he manages the department’s honor guard and organizes a car show as an annual fundraiser for the Cops for Kids program. But now he’s feeling good and is back doing the things he loves.

Hoskins is a car enthusiast and loves working on his 1965 Buick Riviera. He’s also a musician. This summer he practiced the saxophone and bass guitar with his old jazz-funk band for three days straight to prepare for their reunion concert.

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Mayo Clinic has offered transplantation as a treatment option for adult and pediatric patients since 1963. Mayo Clinic organ transplant programs have earned worldwide recognition for their expertise and success. In 1998 the separate organ and tissue transplant efforts united under the umbrella of the Mayo Clinic Transplant Center. This cooperation enhances the ability of Mayo physicians and scientists to share expertise and resources, offer comprehensive integrated transplant services, and to conduct innovative research in transplantation.



All things are possible

Hoskins has some advice for those who are waiting for a liver transplant.

“The most important thing is to do your homework and find a facility that has had great success with your medical condition,” he says. “You need to plan for the financial burden of medical bills, extended hotel stays and travel. You need a good support system for the inevitable days when you think you can’t go on — having lots of support from my family, friends and colleagues made all the difference in the world. And, finally, have faith in God. Through God all things are possible. I am living proof of that.”

Social worker Danielle Peabody — Easing your transplantation journey

The news that you are about to be launched on a transplantation journey can be overwhelming, especially when you begin to understand the challenges you will face throughout this complex process. Social workers such as Danielle Peabody, who work with people accepted into the kidney/pancreas program, are there to guide you and your family over the bumps along the way.

“Most of our patients are regular, well-adjusted people who are momentarily overwhelmed by their illness,” says Peabody. “

“Social work offers me the chance to bring the relief they need for a successful transplant.”

“It’s a nice balance between providing intangible assistance, such as counseling, and identifying tangible resources such as health insurance, financial grants, lodging and other patient assistance programs such as volunteer pilot organizations.”

Enjoying precious moments

One thing that always troubles people who have received the gift of life is how to properly thank their living donor or the family of the deceased donor.

“They are so profoundly grateful they feel pressure to find the perfect gift, or the perfect card or the perfect words to say,” says Peabody. “I always tell folks that the best way to give thanks is to take good care of themselves and enjoy life to the fullest. And every now and again, to acknowledge a small but meaningful experience, such as watching a beautiful sunrise, which they could not have enjoyed without the donor’s generous gift.”

Peabody came to Mayo from graduate school seven years ago and had her first assignment on the orthopedic floor. She has worked in the Transplant Center for four years. She loves her work for both its serious and lighter moments.

“A former patient, who was not wealthy, had saved \$3,000 and wanted to give it to three people undergoing transplant whose need was immediate,” explains Peabody. “One of my patients was a young, disabled man who had been here some time and could not afford to stay any longer. I was so moved when I gave it to him that I was in tears. On other days, I’ll be laughing with a man who has received a kidney from a woman and jokes about anticipating monthly mood swings or wearing nail

polish. I was amused by one extremely liberal patient whose only concern was that she get a left kidney.”

Surmounting her own challenge

After hours, Peabody can often be found at home working on house projects. Or you might find her jogging with Sherman, her beloved English Springer Spaniel. On Saturday mornings, when her runs can be as long as 20 miles, she leaves Sherman behind because she is training for her second marathon.

“I always wondered if I was capable of running a marathon,” says Peabody. “So I set the goal of finishing a marathon before I turned 30, which I did last year.”

Peabody ran the Honolulu Marathon last December.

“Lots of people write things on their shirts and I saw several runners who had written ‘Received the Gift of Life’ on theirs,” says Peabody. “When you get toward the end of the marathon and everything hurts, it’s inspirational to be reminded that the mountain of challenges that these people have overcome puts your self-imposed and temporary discomfort back into the molehill category.”



Social worker, Danielle Peabody, helps patients and their families through the transplant process.

Behind the scenes in the Histocompatibility Laboratory

S. Breannan Moore, M.D.

Running a successful transplant program requires a diverse team of highly specialized experts. You are familiar with the physicians, nurses, social workers, dietitians and other caregivers who work directly with you. But many other critical roles are filled behind the scenes. One is making sure that the blood, cells or organ that you receive are compatible and safe. S. Breannan Moore, M.D., has directed the Mayo Clinic Histocompatibility Laboratory since 1977, and chaired the Division of Transfusion Medicine since 1992.

“As a former clinician, I have a very strong sense that each sample tested in our laboratory is from an individual patient with a unique medical problem,” explains Dr. Moore. “The best part of my job is when I am consulted on a particularly complex case or called to explain a difficult matching issue to patients and their families.”

Dr. Moore oversees the work of 200 employees in the various Transfusion Medicine labs. Their work includes:

- Performing HLA (human leukocyte antigen) typing for organ and bone marrow transplantation.
- Performing tests to identify the best platelet blood products for individuals.
- Performing tests to identify antibodies to white blood cells and platelets.
- Performing cross-match testing to ensure safe and compatible transfusions.
- Performing apheresis — filtering disease-causing substances out of blood.
- Collecting stem cells for blood and bone marrow transplantation.
- Separating donated whole blood into separate components.
- Participating in blood-product-related research and preparing blood products vital to many Mayo Clinic studies.

Twenty years ago, Dr. Moore was the first to describe the condition, transfusion-related acute lung injury (TRALI) — the sudden accumulation of fluid in the lungs after blood transfusion. TRALI is now recognized as the most important, and potentially preventable, severe complication of blood transfusion. Dr. Moore was a founding member of each Mayo Clinic organ transplant team, except the kidney/pancreas program. He has authored or co-authored over 400 scientific publications.

Dr. Moore came to Mayo Clinic from Ireland with his wife, Mary, in 1976. They have been married 36 years and have two grown children. A self-proclaimed sports nut, Dr. Moore was once offered the opportunity to play professional soccer for Manchester United. Although he did not accept, he has remained a faithful Red Devils fan ever since. He is also an avid photographer and eclectic reader.



S. Breannan Moore, M.D., works behind the scenes helping transplant patients.

The voyage of “Catalyst”

70-year-old heart-kidney transplant recipient sets sail to raise awareness for organ donation



Ardell Lien, raising awareness for organ donation and proving that transplant patients can return to leading a normal life.

Ardell Lien is a man on a mission. The 70-year-old retired military officer is on a solo sailing adventure around the world in his 27-foot boat, “Catalyst”. Lien, who received a heart-kidney transplant at Mayo Clinic in January 2003, is using his 27,000-mile, 15-month journey to help raise awareness of the critical need for organ donation.

“Sailing is my passion, but increasing the number of registered organ donors is my mission,” he says. Sailing around the world was a lifelong dream for Lien who has operated commercial tuna and charter boats. He and his wife, Maureen, had been living aboard their sailboat for six years when his health forced them to sell the boat and return to their hometown, Caledonia, Minn. Lien thought his sailing days were behind him forever.

Warm hands and a speedy recovery

“I was diagnosed with congestive heart failure in 1991 but had very few symptoms until 1998,” Lien recalls. “By 2001, I was down to 150 pounds and everyone in town knew I was on my way out. I slept 18 hours a day and had to crawl up the stairs to my bedroom. I couldn’t even help carry groceries into the house.”

Lien’s first appointment at Mayo Clinic was in July 2002. By October, his health had deteriorated significantly and he was admitted to Saint Marys Hospital to await heart and kidney transplants — his kidneys were also failing due to poor circulation.

On New Year’s Day 2003, Lien received the good news that a matching heart and kidney were available. Surgery began at 2:30 the next

morning and that evening, Maureen once again felt the warm touch of her husband’s hand.

“Because of my circulation problems, I’d had cold hands for years,” explains Lien. “The transplant made a difference immediately.”

Ten days later, Lien was released from the hospital and joined Maureen at the Gift of Life Transplant House for the rest of the required 90-day stay in Rochester. Lien credits the staff at Mayo Clinic and the support of his wife and family for his speedy recovery.

“Everyone at Mayo, from the people who work the desks to the physicians, nurses and technicians, were excellent,” says Lien. “My primary physician, Dr. Brooks Edwards, was always there with support and encouragement. And you couldn’t find a finer group of professionals than the Transplant Center staff.”

The voyage of “Catalyst” *(continued)*

Anchors away!

Six months after his transplant, Lien put a new roof on his house. In the summer of 2004, he remodeled another home from roof to basement. And shortly after that, he hatched his plan for sailing around the world.

Lien set sail from San Diego, Calif., on May 7, 2005. His first stop was Hawaii on June 28, where he was met by Maureen and his two daughters and three grandsons. An organ donation organization helped him spread the word about the mission of the “Gift of Life” voyage. The family attended a huge fund-raiser for a little girl who needed a heart transplant and shared stories with three other heart transplant recipients.

By August, Lien had reached Darwin, Australia. He has had many adventures. At the time of this writing, he is in daily radio contact with a man who is sailing about two miles behind him in a small, man-made canoe. They are headed west into rough seas.



“I had heard about the huge swells from the Southern Ocean and now that I’m out of the shadow of Australia they have arrived,” e-mailed Lien from the “Catalyst”. The best place is in bed with pillows packed on both sides.

Lien acknowledges that he could not have gone through his illness, the transplant surgery or his voyage without the support of his wife.

“Maureen has put a hold on her life for me and for this mission,” he says. “She is a wonderful woman to have had by my side all my life. I am grateful to my whole family — they’ve taken a pretty hard hit with all of this. I know it’s an outrageous thing for a 70-year-old to be sailing alone in a very small boat — but that’s what gets media attention.”

“My mission is to send the message that people who have organ transplants can go back to leading a normal life and that there is a critical need for people to tell their families that they want to be organ donors.”

To learn more about Ardell Lien’s journey, track his progress and get links for information on organ donation, visit www.organ-donation-for-life.com.

Research: Developing a bioartificial liver



Scott Nyberg, M.D., Ph.D., leading research to keep liver transplant patients alive until an organ becomes available.

Liver transplantation has improved the survival of people with liver failure remarkably. However, the shortage of donors remains critical and many patients die while waiting for liver transplant. Scott Nyberg, M.D., Ph.D., is a liver transplant surgeon and biomedical engineer who directs his research efforts toward developing a device that performs the functions of a liver well enough to keep patients alive until an organ becomes available.

His interest in developing a bioartificial liver (BAL) began as a Ph.D. student at the University of Minnesota where he built a device and was awarded a patent.

“The BAL operates outside the body like hemodialysis,” explains Dr. Nyberg. “But it is unique because it uses active liver cells rather than mechanical devices to filter toxins from the blood.”

Besides removing harmful substances, your liver secretes bile to aid digestion, and manufactures about 3,000 chemicals and proteins vital to other organ systems. When viral hepatitis, drugs or physical injury cause the liver to fail, the result can be jaundice, coma and sometimes fatal swelling of the brain.

Various bioartificial liver devices have been developed. They are designed to replace or supplement some of the liver’s functions. They would be useful for both acute liver failure — as a bridge before liver transplantation or to give the liver a chance to heal itself — and as supportive therapy in chronic liver failure. Several show promise but none has yet passed the rigorous requirements of the Food and Drug Administration (FDA).

Three years ago, Dr. Nyberg was primary investigator at Mayo Clinic for a randomized, multicenter clinical trial to test a device that used liver cells from pigs. While results were good, the FDA demanded tests on a subgroup of the sickest patients before approving it, and the biomedical company that produced the device was unable to fund further studies.

“The four patients in Mayo’s study who had acute liver failure all benefited from the device,” says Dr. Nyberg. “It was disappointing when the company pulled out but I have incorporated some of what we learned into an improved device. In order to treat the sickest patients, we need to be able to run it continuously, rather than just for six hours, and we need to increase the number of liver cells that we use.”

The new device is engineered to grow the liver cells as clumps rather than in monolayers — a process that increases their effectiveness and their life span. Dr. Nyberg is optimistic that, with several devices in development, improved long-term survival for people with liver failure is just around the corner.



**For More
Information...**

For more information on Mayo Clinic's William J. von Liebig Transplant Center, visit us online at:

www.mayoclinic.org/transplantcenter-rst/



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