Adam Janusz and his wife, Saori, recently marked the one-year anniversary of his new heart.

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Three years ago, when Janis Ollson, now 32, was pregnant with her second child, she experienced agonizing back pain. But, unlike the back pain she had during her first pregnancy with daughter Braxtyn, this time the pain would not subside.

“I was desperate for relief,” says Ollson. Five months into the pregnancy she could no longer work at her office job. At seven months, she could no longer drive.

Ollson, who lives in Balmoral, Manitoba, Canada, eventually went to the hospital and refused to leave until she was admitted. “I knew something was wrong,” she says. “That degree of pain could not possibly be normal, even during pregnancy.”

Listening to her instincts and refusing to take no for an answer helped save Ollson’s life — along with a groundbreaking surgery at Mayo Clinic.

Initially, Ollson’s physicians in Canada diagnosed her with sciatica, pain that radiates along the path of the sciatic nerve, from the back down the buttock and leg. Concerned about other causes, a neurologist ordered a magnetic resonance imaging (MRI) scan. It revealed a tumor the size of her hand on her lower spine.

Physicians suspected the tumor was cancerous. Confirmation had to wait until after the birth of baby Leiland, when biopsies could be safely performed.

Those tests showed that Ollson had chondrosarcoma, a primary bone cancer. Chondrosarcoma can go undiagnosed for months or years because pain may be the only symptom. It often occurs in the pelvis, hip or shoulder. It does not respond to chemotherapy or radiation.

Ollson’s physicians in Canada had doubts about the diagnosis, because chondrosarcoma is rare in a younger person. They sent tumor tissue to Mayo Clinic in Rochester for confirmation.

“There’s nothing you can’t get through with supportive people around you.” – Janis Ollson
Mayo Clinic confirmed the cancer, which had spread through several bones, her pelvis, sacrum and lower spine and into muscle tissue. Ollson’s only chance of survival was surgery.

Ollson says the Canadian specialists believed they could remove the cancer but were less sure about reconstruction. Getting the cancer would require removing the lower spine, half of Ollson’s pelvis and her left leg. That procedure separated her healthy right leg and pelvis from her spine. “When I heard this news, I was in complete shock,” says Ollson.

Canadian physicians had contacted Michael Yaszemski, M.D., Ph.D., an orthopedic surgeon at Mayo Clinic in Rochester, Minn. He believed the reconstruction could be successfully done. “Reconstructing Janis’ body would require restoring continuity of her torso to her remaining pelvis, using bone from the left leg that was to be removed,” says Dr. Yaszemski. “Successful, challenging surgeries are the product of teamwork — a hallmark of the collaborative environment at Mayo Clinic.”

Ollson and her husband, Daryl, trusted Dr. Yaszemski’s team, which included eight surgeons, to save her life. “To me, it was black and white, live or die,” says Ollson. “Without the surgery, I would die. With the surgery, I could live. I did not have another option, and they knew what they were doing.”

Working with cadavers in the anatomy lab, Dr. Yaszemski and Mayo Clinic experts in biomechanics designed a unique method for reconstructing Ollson’s pelvis. “We felt confident that it offered Janis the best opportunity for optimal function in her activities of daily living,” says Dr. Yaszemski.

In a 13-hour procedure, surgeons removed Ollson’s left leg, half of her pelvis, her tailbone and part of her lower spine. One week later, in a seven-hour operation, they took a portion of the left leg they had removed, and rotated it and secured it to the pelvis. Then, they shifted the right leg and remaining part of the pelvis and secured it to the spine. This helped to ensure that the right leg would remain functional and that the left side could accommodate a prosthetic pelvis and leg.

Ollson was kept sedated (unconscious) during the week between the two surgeries. In that time, she and her husband had their seventh wedding anniversary.

“After the second surgery, when I felt pain during my recovery, I regarded it as part of getting better and hurdles I needed to overcome,” says Ollson. “I didn’t complain; I continued to look forward to each new step.”

Ollson spent 52 days at Mayo Clinic and continues her rehabilitation. “My recovery has been long and slow, but I’ve made continual progress with no setbacks,” she says. Ollson uses a wheelchair or crutches. She drives a car, snowmobile and all-terrain vehicle. She swims with her children.

“I won’t let anything slow me down, and I don’t like to be left out,” she says. She was determined to walk again before Leiland began walking — a goal she accomplished.

“My life’s dream was to be the best wife and mother I could be,” says Ollson. “I want to do things with my children, not just watch them.” By all accounts, Ollson has fulfilled her dream.

“I’m really happy for her,” says Dr. Yaszemski. “She and her family have been super through this. They haven’t lost their enthusiasm for life. Janis has said — and I believe her — that she isn’t going to let this change the way she interacts with her family and raises her children.”

“I’m back to being a wife and mom now,” she says. “I think the kids seeing my journey will make them better and stronger. There’s nothing you can’t get through with supportive people around you. I will always be grateful to my amazing team at Mayo Clinic for the gift of my being here while my kids grow up.”
Instead of honeymooning in Ireland, Adam Janusz and his wife, Saori, took a journey of the heart. Janusz, then 32, was diagnosed with a rare heart ailment, requiring ventricular assist devices (VAD) to keep his heart pumping. Eventually, he’d need a heart transplant.

The couple’s odyssey started when they’d been married for less than two years and were preparing for a delayed honeymoon. Then Janusz got sick with what he thought was a cold. His lungs felt congested. An X-ray indicated pneumonia. He didn’t feel any better a week later, and he began to notice his pulse “wasn’t right.” He had difficulty eating and sleeping.

In March 2009, Janusz went to an emergency room in Phoenix, where he experienced cardiac arrest. The physicians determined he was in heart failure. They contacted a team from Mayo Clinic in Arizona, led by Francisco Arabia, M.D., a cardiothoracic and transplant surgeon, and transferred Janusz to Mayo Clinic for specialized care.

At Mayo Clinic, Janusz was diagnosed with giant cell myocarditis, a rare, devastating disease that usually affects young, otherwise healthy individuals. Symptoms include chest pain, shortness of breath and fatigue. Heart failure, heart attack or sudden death can occur. The cause of the disease is unknown.

At Mayo Clinic, Janusz received two VADs — one for each side of his heart. In July 2009, he was strong enough to go home. He was outfitted with portable VADs to replace the large units he used in the hospital.

“When you have VADs, you have to have a lot of trust — that the devices will keep you alive, that you understand how the technology works and what you need to do to keep them functioning,” he says. “I had confidence in everyone who cared for me at Mayo, so I trusted that everything would go well.”

The damage to Janusz’s heart was severe, and it became clear that he would need a heart transplant. He received a heart in October 2009.

“Since the transplant, I tire more easily, but I feel pretty great, considering what I’ve been through,” he says.

Janusz and his wife now live in Los Angeles, and they recently returned to Arizona for his one-year post-transplant checkup. They climbed Camelback Mountain (elevation 2,706 ft.) in Phoenix.

“I was slower than I used to be, but I made it to the top of the mountain,” says Janusz.

Janusz says he is still astonished by the VADs and heart transplant. “What an unusual and amazing thing to imagine and be part of,” he says. “I am honored to have benefited from the extraordinary expertise of the Mayo doctors.”

Janusz and his wife still haven’t had their honeymoon. “We had a crash course in marriage,” says Janusz. “This experience has made me enjoy observing life and its intricacies and not let it sweep by quickly.

“We’ll get our honeymoon. For now, I feel lucky just to be here.”
A ventricular assist device (VAD) is an implantable mechanical pump that can be used to aid a failing left ventricle, right ventricle or both. It’s used as a:

- Bridge to transplant. It’s removed when a new heart is implanted.
- Bridge to recovery for patients with temporary heart failure or who are recovering from heart surgery.
- Permanent treatment for heart failure when patients are not eligible for transplant.

A VAD is implanted via open heart surgery. In addition, the patient wears a control unit and battery pack outside the body. It’s connected to the VAD through a port in the skin. This procedure is done at campuses in Rochester, Arizona and Florida.

“There is a window of opportunity during which we can implant a VAD in an end-stage heart failure patient,” says Francisco Arabia, M.D., a cardiothoracic and transplant surgeon at Mayo Clinic in Arizona. “Ideally, the patient sees us before other organs are affected and the patient is relatively healthy. A VAD can increase the patient’s survival and improve quality of life.”

Linda Staley, VAD coordinator at Mayo Clinic in Arizona, says 21- to 30-day hospital stays are typical for VAD recipients. “They often are in less than ideal condition before surgery,” she says. “While they’re in the hospital, we need to help them get strong enough to go home and teach them how to live with a VAD.”

Stiehl says maintaining the VAD becomes part of the daily routine. “I change the battery once a day. My wife, Charlotte, changes the sterile dressing,” he says.

Stiehl is back to golfing two to three times a week, and he sings in a chorus and a church choir. “There’s very little I can’t do,” he says.

Stiehl participates in a monthly support group for VAD patients at Mayo Clinic in Arizona. Patients and family members share tips and encourage each other, says Tisha Pathuis, heart transplant social worker and support group coordinator.

“Once you’re a VAD patient at Mayo, you’re a patient forever, and they never stop caring about you and for you,” says Stiehl. “Every night, I say thank you to God and to Mayo Clinic.”

Jack Stiehl attends a monthly VAD support group meeting at Mayo Clinic.
Grace Jeffers was happy – really happy – to see her physician, Brian Weinshenker, M.D., a Mayo Clinic neurologist.

Jeffers has neuromyelitis optica (NMO), a rare neurological disorder that attacks cells in the optic nerve and spinal cord. The disease took her vision. At Mayo Clinic, it was restored.

Jeffers’ illness started in 2009 with a backache. Within a week, she couldn’t walk and had lost control of her left side. Jeffers, a Chicago resident, says local physicians believed she had multiple sclerosis (MS). They performed tests and sent blood samples to Mayo Clinic in Rochester, which confirmed she had NMO.

Confused with MS

NMO is often confused with MS. But, unlike MS, NMO symptoms are usually more severe and more likely to leave permanent neurological impairment.

“I was frightened at how quickly this illness came on, and I wondered when it would stop,” says Jeffers.

Jeffers says her physician in Chicago told her that Dr. Weinshenker “wrote the book” on NMO. Jeffers scheduled an appointment at Mayo Clinic. But, in short order, she lost vision in both eyes.

Jeffers spent the next three weeks in Rochester, receiving outpatient care. Dr. Weinshenker first treated her with steroid medication. When her condition didn’t improve, he recommended plasma exchange, in which antibodies are separated out of the bloodstream.

Dr. Weinshenker and colleagues conducted a definitive study in the late 1990s that established plasma exchange as a treatment for acute, severe NMO attacks when steroid medications fail. Jeffers had five plasma exchange treatments over 10 days. Her vision returned, and she regained movement in her left side.

“Treatments were good. I woke up after the fourth treatment feeling better, and I could see the Olympics on TV,” she says. “It felt incredible to see again. I finally got to see what Dr. Weinshenker looked like. He’s so caring – just what you think a doctor should be and more.”

Jeffers returned home and began rehabilitation to recover from the nerve damage caused by her initial attacks. Today, she works out at a gym and walks 1.5 miles a day. She still limps and has some numbness but says she keeps improving.

“If you have NMO, there is hope at Mayo Clinic,” says Jeffers. “It’s not the end of the world as long as you’re in the right hands.”

Research to prevent attacks

Jeffers is participating in a clinical trial led by Sean Pittock, M.D., and Dean Wingerchuk, M.D., at Mayo Clinic. She receives an intravenous infusion of the drug eculizumab every other week. The trial is investigating whether this treatment can prevent further attacks.

Jeffers says she is confident that if she has additional NMO attacks, or if plasma exchange stops working, Mayo Clinic will have another treatment. “They don’t rest. They’re always looking for the next best thing,” she says. “I’ve never had care like I had at Mayo. They make you feel like you’re the only patient.”

About NMO

In neuromyelitis optica (NMO), also called Devic’s disease, the immune system reacts against the body, causing episodes or attacks primarily targeting the optic nerves and the spinal cord, leading to blindness, paralysis of the legs, bladder, bowel dysfunction and, occasionally, respiratory failure and death.

Traditionally, NMO was confused with multiple sclerosis (MS), which also attacks the optic nerves and spinal cord. In the past decade, Mayo Clinic researchers have found ways to differentiate between these diseases. Their findings led to a new blood test that greatly aids in accurate, rapid diagnosis of NMO. Early diagnosis is critical to improve patient outcomes.
Jake Kranz, a senior at the University of Minnesota, recently rode the longest, tallest zip line in the world and climbed a volcano during a trip to Costa Rica.

Any college student would be grateful for the chance to have such adventures, but Kranz has an extra reason. In September 2007, Kranz was injured during a football game at St. Cloud State University where he was a freshman quarterback. A tackle gone awry resulted in three torn ligaments, two completely torn tendons and partial fracture of his femur.

The injury to his left leg could have left him unable to use it. A seven-hour surgery at Mayo Clinic repaired the damage and put him on the path to recovery.

When a local surgeon recommended several separate surgeries to repair the damage, Kranz’s mother, Nancy, called Michael Stuart, M.D., an orthopedic surgeon in Sports Medicine at Mayo Clinic, for a consultation.

At Kranz’s first visit with Dr. Stuart, Nancy asked if her son would regain full function of his left leg. Dr. Stuart said that simply preserving the use of the leg was his primary concern.

“My mom didn’t share that information with me until I had begun my recovery,” says Kranz. “I’m glad she sheltered me a bit from the severity of my injury. I needed to get through the initial recovery period without additional anxiety.”

Two weeks after that visit, Dr. Stuart and his orthopedic surgery colleague, Bruce Levy, M.D., reconstructed the torn ligaments using cadaver grafts and repaired the torn tendons. Surgery was followed by a six-day hospital stay in Rochester.

“Successful return to a high level of function following multi-ligament knee reconstruction requires a team effort,” says Dr. Stuart. “Jake’s strong work ethic, positive attitude and family support were noteworthy. No doubt, they played a role in his recovery from a major surgery.”

For the first three weeks after surgery, Kranz’s leg was immobilized in a brace. Then, he began knee range-of-motion exercises. At three months after the injury, his rehabilitation progressed to strength training and balance exercises. A physical therapist in Kranz’s hometown of Hastings, Minn., provided these services with guidance from his Mayo Clinic team. Physical therapy continued for a year and a half.

Kranz quit school for two semesters while he recovered. When he returned to school, it was in Minneapolis — in part to be closer to his family.

“I’d always been close to my family, but the injury and recovery changed me,” says Kranz. “Although athletics had been a big part of my life, I came to understand that it wasn’t everything. I adjusted my priorities and found other passions and hobbies.”

These days, instead of putting on football gear and spending time on the field, Kranz is involved in youth ministry with college students and mentally challenged youth.

Kranz credits Dr. Stuart, his Mayo Clinic team, and therapy for this return to normal functioning. “Some days, my repaired leg feels stronger than my uninjured leg,” he says, noting he is careful to avoid activities Dr. Stuart advised against, such as skiing.

“I wear a brace when I play basketball and other recreational sports. The last thing I want to do is damage the miraculous repair work that Dr. Stuart completed,” he says.

Kranz is majoring in health and wellness management at the University of Minnesota and would like to work in medical device sales. “My interest in that area developed since my surgery,” says Kranz. “I hope my career path intersects with Mayo Clinic some day. I have a real passion for Mayo and will be forever grateful for the expertise of the physicians and staff.”

Back to normal after potentially disabling knee injury

Jake Kranz is back to an active life — even hiking up a volcano — after surgery to repair a serious knee injury.
Mayo Clinic now “in-network” for UnitedHealthcare

Mayo Clinic works with hundreds of insurance companies and is an in-network provider for millions of people. In November, many more people gained in-network access.

Mayo Clinic announced a new network relationship with UnitedHealthcare commercial plan customers, providing in-network access to Mayo Clinic physicians and hospitals.

UnitedHealthcare offers a full spectrum of health benefit plans and services to individuals, public sector employers and businesses of all sizes, including more than half of the Fortune 100 companies.

The new network relationship covers all Mayo group practices and hospitals in Jacksonville, Fla., Scottsdale/Phoenix, Ariz., and Rochester, Minn.

“This national agreement with UnitedHealthcare will allow even more people to experience Mayo Clinic,” says John Noseworthy, M.D., Mayo Clinic president and CEO.

“Our patients tell us they come to Mayo for our team approach to health care, our ability to find answers and the peace of mind they have knowing that they receive care from many leading experts in their fields,” says Dr. Noseworthy. “We welcome the opportunity to serve UnitedHealthcare’s commercial plan participants.”

In most cases, Mayo Clinic doesn’t require a physician referral. In fact, more than 8 out of every 10 patients come to Mayo Clinic on their own, without a referral from another physician.