Northwestern Medicine

International Health

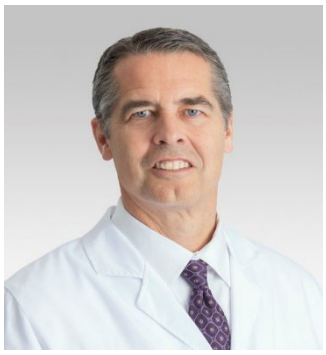
Spring 2024

Breakthroughs in Clinical Care and Cutting-Edge Research

FIRST EVER DOUBLE-LUNG AND LIVER TRANSPLANT FOR ADVANCED LUNG CANCER IN THE WORLD

A successful dual organ lung-liver transplant was performed on a physician who had advanced lung cancer. The patient was a pulmonologist from California who was diagnosed with stage 3 lung cancer and underwent chemotherapy, radiation, and immunotherapy. However, the treatments left him with irreparable damage to both his lungs and his liver. He was told that there were no other options for him but palliative or hospice care. Then, his wife found out about the Double Lung Replacement program at Northwestern Medicine, also known as the DREAM program. After being on the transplant list for *only 12 days,* two lungs and a liver became available from one donor, and he underwent an historic surgery to remove the cancerous cells from his chest cavity and replace the diseased lungs. The transplant team at Northwestern Medicine which included Dr. Ankit Bharat and Dr. Satish Nadig used a perfusion machine to pump body temperature blood into the liver to keep it alive for 17 hours while the surgeons completed the triple transplant. For more information, please click **here**.

FIRST HOSPITAL IN ILLINOIS TO OFFER PULSED FIELD ABLATION



Northwestern Medicine has become one of the first institutions in the country to offer pulsed field ablation, a pioneering advancement in cardiac electrophysiology. This approach allows for very high voltage, very brief electrical shocks to ablate the tissue causing arrhythmia. This breakthrough will help treat atrial fibrillation (AFib), a common condition affecting people globally. The FDA has approved this innovative approach after successful trials, which is exciting news for the medical community. Dr. Knight's expertise in areas such as cardiovascular imaging, cardiovascular diseases, and pacemakers is impressive, and he continues to contribute significantly to advancements in cardiac care as Director of Cardiac Electrophysiology at Northwestern Medicine and Director of the Heart Rhythm Center at the Bluhm Cardiovascular Institute (BCVI). To learn more, please click **here**.

BATTERY-POWERED BRAIN DRILL USED IN FIRST SURGERY BY NORTHWESTERN MEDICINE DOCTOR

The field of brain surgery has been revolutionized by the "Hubly drill", an innovative invention developed by Northwestern University student Casey Qadir and Dr. Amit Ayer. This remarkable device, powered by a battery, has the unique capability to automatically stop drilling as soon as it penetrates the skull, offering a much safer alternative to the traditional hand crank drill. The Hubly drill has already earned accolades from renowned neurosurgeon Dr. Matthew Potts, who recently employed it for the first time and was impressed by its remarkable efficiency and safety features. With its groundbreaking features, the Hubly drill is expected to make a significant impact in the field of neurosurgery by improving patient safety and reducing the risks associated with traditional brain surgeries. To read more, please click **here**.

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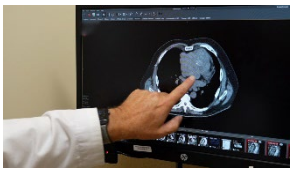
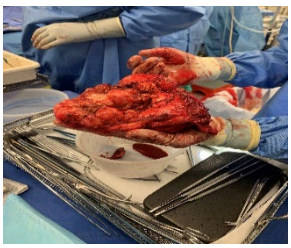
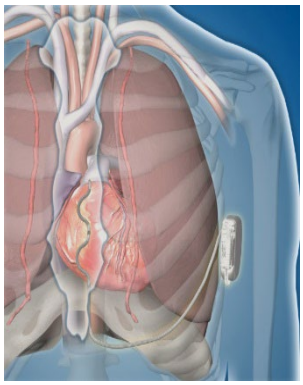
NORTHWESTERN MEDICINE PHYSICIANS REMOVE RARE FOOTBALL-SIZED HEART TUMOR





A team of surgeons at Northwestern Medicine skillfully extracted a football-sized cancerous tumor from a patient's heart. Despite experiencing mild tightness in his chest for months, doctors had attributed it to aging, but he remained skeptical and sought further medical attention. Cardiologist Michael J. Severino quickly identified the issue and informed the patient that a big mass was pressing into his heart and causing the symptoms. The tumor was growing and damaging his heart, and surgery was the only chance he had at survival. However, finding someone to operate was difficult due to the risky and complicated nature of the procedure. Dr. *Christopher K. Mehta*, a cardiac surgeon at Bluhm Cardiovascular Institute, stepped in and performed a 12-hour operation to remove the tumor, which weighed more than 1.5 pounds and had completely covered his heart. The tumor was so rare that it was a medical first for Dr. Mehta, who had only seen a handful of these types of tumors in his career. For more information, please click **here**.

FIRST-OF-ITS-KIND DEVICE AIMS TO PREVENT SUDDEN CARDIAC DEATH



The patient was recommended an ICD by his cardiologist after his second cardiac event in 5 years. Traditional ICDs have wires threaded into the heart, but the Medtronic EV ICD is an extravascular ICD that provides benefits of traditional ICDs without leads in the heart or surrounding vessels. He enrolled in a clinical trial with the EV ICD that showed greater defibrillation effectiveness than traditional ICDs and fewer complications. Bluhm Cardiovascular Institute is the only site in Chicago and one of only 46 sites worldwide to participate in the pivotal research. Bradley P. Knight, MD, medical director of Electrophysiology at Northwestern Medicine Bluhm Cardiovascular Institute and a co-author of the study, believes that the EV ICD is a revolution in implantable defibrillator technology that addresses the limitations of the existing therapies that have been available for several decades. To read more, please click **here**.

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