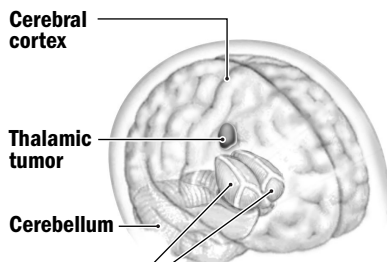


Groundbreaking neurosurgical technique

The problem

Dr. Kerry Crone, a neurosurgeon at Cincinnati Children's Hospital Medical Center, has devised a new procedure to operate on brain abnormalities previously thought inoperable. The technique, which is one of many new surgical procedures offered by the Minimally Invasive Neurosurgical Division, was recently performed on 9-year-old Caleb Madison.



Thalamus
Serves as a relay station for all sensory and motor functions of the brain.

Source: Cincinnati Children's Hospital Medical Center

The technology

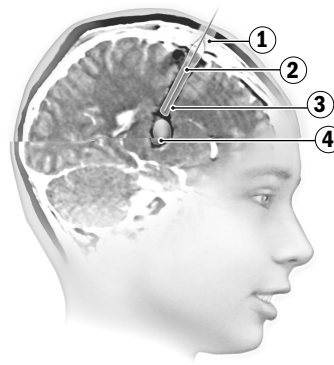
The new, ultra-high magnetic field strength MRI, 3 Tesla, provides images of the highest possible resolution allowing doctors to safely operate around nerve fibers.

Nerve fiber track **Thalamic tumor**



The procedure

1. A half-inch opening is made in the skull.
2. Using computerized targeting, a balloon catheter is guided to the tumor.
3. Over the course of five days the balloon is inflated, spreading delicate nerve fibers and creating a safe pathway to the tumor.
4. The balloon is deflated and the catheter taken out. The tumor is surgically removed.



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