

**Partner:**  
Original equipment manufacturer

**Technology:**  
Strain-gauge pressor sensor

**Duration:** 25+ Years

**Status:** Ongoing

Worldwide, the incidence of TBI is estimated at 200 per 100,000 people annually. Millar's strain-gauge technology gives medical practitioners the precise, reliable information they need to intervene quickly and relieve brain-destroying pressure.

## Rethinking pressure measurement. Revolutionizing TBI treatment.

### Problem

A medical device manufacturer reached out to Millar in 1990 to develop a better method for measuring intracranial pressure in patients with traumatic brain injury (TBI). While fiber-optic catheters offered an improvement over traditional fluid-filled pressure measurement, these devices did not meet the manufacturer's bending requirements in order to take readings at the cranial site.

### Solution

During the last quarter-century, Millar has spearheaded strategies that address both unmet clinical needs and production challenges. Millar's patented strain-gauge pressure sensor could tolerate bending of the catheter body, was insusceptible to motion and patient position and provided greater ease of use. Today, doctors can obtain accurate, real-time pressure readings directly at the source, intervening quickly to relieve brain-destroying pressure.

Leveraging more than 40 years of manufacturing experience, Millar has led improvements that continue to smooth the development process, including a new PotCon® board to reduce inefficiencies in the production line. More recent developments include yellow catheter bodies to improve visibility for practitioners and depth markings to improve placement accuracy.

### Impact

With 100% inspection, accuracy and drift testing of each device, Millar can reliably produce consistently high-quality equipment that improves patients' lives. Millar has manufactured more than 750,000 units for this company to date.