Barrow Neurological Foundation | FY24

Sonntag Spine Center

Severe back pain can affect every aspect of your life, making simple activities like getting dressed in the morning, driving, and running errands almost unbearable.

Led by Juan Uribe, MD, the Sonntag Spine Center is committed to pushing boundaries in spine surgery to ensure that each patient can return to a healthy, fulfilling life. The team works tirelessly to integrate cutting-edge research, technology, and innovation to revolutionize the way spine surgeries are performed. This has led to several pioneering techniques that have significantly improved patient outcomes and reduced recovery time.

IMPACT OF PHILANTHROPY

2,800
patients in Barrow spine registry

70+
abstracts presented at conferences

27
peer-reviewed articles published

Your support advances life-changing spine research.

The Spinal Biomechanics Laboratory, led by Brian Kelly, PhD, aims to develop new surgical techniques and devices. For example, the lab is investigating factors that may lead to the degeneration of surrounding areas after spinal fusion surgery. It is also one of only two labs worldwide using digital imaging correlation to track stress and strain on the sacroiliac joints, which connect the spine to the pelvis.

Philanthropic support has enabled the Center to grow its Spine Clinical Outcomes Prospective Registry, with more than 2,800 patients enrolled to date. Led by Jay Turner, MD, PhD, the registry collects a wide range of clinical data for surgeons to improve treatment and maximize patient outcomes and quality of life.

You make a difference in our patients' lives.

"Seeking out Dr. Jay Turner for a second opinion changed my life. I can stand and walk, and I don't have to be in a wheelchair. I am proof that you can survive and thrive after extremely complex spine surgery. I'm just glad there are places like Barrow and doctors like Dr. Turner who are willing to help."

Linda Van Goor

Read the full story:

SCAN ME

You help redefine surgical education and training.

The Virtual Reality (VR) Spine Laboratory is revolutionizing the future of surgical training with cutting-edge VR technology. Thanks to the generosity of Barrow donors, the lab has acquired new cameras for precise tracking and motion analysis, enhanced software, and customized AI tools to automate spine training modules.

The VR Spine Lab also launched its first validation study, distributing VR headsets and 3D-printed spine models to neurosurgical residents. Through this, the team aims to gather real-world feedback to further enhance surgical training applications.

On the Horizon

The **Golf Neuroscience Research Laboratory** will study the biomechanics of the modern golf swing to develop science-backed guidelines for players to return to the game safely. The Barrow Open, presented by PXG with support from The Bob & Renee Parsons Foundation, will raise funds for the new lab.

The **Spinal Biomechanics Lab** is working to update critical equipment and acquire new technology to accelerate studies utilizing the latest surgical devices.

The **VR Spine Lab** will continue developing its AI-automated training modules and then test them in several validation studies.