Introducing the Cannulated PediGuard® for Minimally Invasive Spine Surgery (MIS): a handheld device that can detect possible vertebral cortex perforation during pedicle preparation for screw placement.

- Hear and feel what you cannot see
- Be reassured that your trajectory is sound
- Reduce your radiation exposure by relying on PediGuard feedback
- Anticipate possible breaches of the pedicular wall or vertebral body
- Redirect with complete confidence
- Safely cannulate deeper into the vertebral body than with traditional MIS techniques, then introduce the k-wire

Simple. Innovative. Smart.

Minimally Invasive Spine Surgery: Benefits and Risks

Minimally invasive spine surgery has been developed to treat disorders of the spine with less blood loss and soft tissue destruction, allowing quicker recovery and faster patient return to normal functions compared to the open surgical procedure. However, the pedicle screw placement is even more challenging in these less invasive procedures due to the lack of visual landmarks and tactile feel, resulting in excessive use of fluoroscopy. The new Cannulated PediGuard can help you take advantage of the benefits of less invasive spine surgery while addressing some of these challenges.

The one-of-a-kind PediGuard technology is placing navigation back in your hands.

Bibliography

2. Chaput C, Williams JI, George K, Samdani AF, Gaughan JP, Betz RR. Prospective, Randomized Trial of a New Pedicle Drilling Probe that Measures Electrical Conductivity and Reduces Radiation Exposure. IMAST 2011
7. Betz RR, Williams JI, George K, Gaughan JP, Betz RR. Prospective, Randomized Trial of a New Pedicle Drilling Probe that Measures Electrical Conductivity and Reduces Radiation Exposure. IMAST 2011

SpineGuard® S.A.
5-7, rue de l’Amiral Courbet
94160 Saint-Mandé - France
Phone: +33 1 45 18 45 19
Fax: +33 1 45 18 45 20
www.spineguard.com

SpineGuard® Inc.
1388 Sutter Street, Suite 510
San Francisco, CA 94109 – USA
Phone: +1 415 512 2500
Fax: +1 415 512 8004
The PediGuard technology provides valuable feedback unmatched by fluoroscopy and other technologies without interrupting your surgical procedure. The result is continuous real-time navigation in a simple, handheld device.

Safety is our primary concern

Electromagnetic bipolar sensor
- Detects minute changes in electrical conductivity 5 times per second

Universal luer lock

Detachable handle
- With electronic circuit board

Audio system
- Alerts surgeon with changes in pitch and cadence

LED
- Alerts surgeon with changes in flashing LED cadence

Battery
- No external power supply needed

The PediGuard technology has demonstrated strong results in a wide number of clinical studies with more studies forthcoming:

- 97% screw placement accuracy[2, 3, 4, 5, 6]
- 98% probability of breach detection[1]
- 87% breach anticipation[7]
- 3-fold reduction in neuro-monitoring alarms[8]
- 15% time saving during screw placement[6]

Surgeons’ greater reliance on fluoroscopy during procedures exposes the OR team to dangerous radiation.

- The average spine surgeon will receive the maximum allowable lifetime exposure of radiation for classified workers within 10 years of practice (Ul Haque 2006)
- The radiation exposure in spine surgery has been found to be 10 to 12 times greater than the radiation exposure during other fluoroscopically assisted non-spinal musculoskeletal procedures (Rampersaud 2000)

Studies show that the use of PediGuard can significantly reduce the radiation exposure to you and your staff:
- 33% radiation time reduction[9]
- 55% reduction in thyroid radiation exposure to the surgeon[9]
- 25% - 35% reduction in fluoroscopy shots during pedicle screw placement[2,6]

Delivered sterile, ready to use.