



# MCGINLEY ORTHOPEDICS

ENGINEERING MEDICAL PROGRESS

## IntelliSense Drill Technology®

### Potential Benefits

The IntelliSense® Drill has been designed with patient safety as the primary goal. Below is a comparison of the IntelliSense® Drill with conventional surgical drills focusing on how it will benefit your hospital/surgical center, surgeons and patients. References can be found on the IntelliSense® Drill Reference Articles page.

	INTELLISENSE® DRILL	CONVENTIONAL DRILLS
<b>Drilling Bone</b>	Incorporates sensor technology and an auto-stop feature to continuously monitor the drilling process, drill bit location and depth.	Using their "feel" of the bone, surgeons terminate the drilling process when they think they have reached the far side of the bone.
<b>Edge Detection</b>	Alerts you when you pass through any bony cortex and auto-stops on the far side of the second cortex.	Inadvertently drilling too far or "plunging" through the bone may damage blood vessels, brain, spinal cord, tendon, or other tissues that could result in serious injury or even death.
<b>Depth Measurement</b>	Happens in real time, automatically telling the surgeon the depth of the drilled hole. It is accurate to 0.6mm!	Using a mechanical depth measurement device, the hole is sized for a surgical screw.
<b>Radiation Exposure</b>	Greatly reduces the need for fluoroscopy and the radiation risks may be minimized. Only certain situations will call for fluoroscopy.	Subjecting patients to fluoroscopy can lead to potentially serious health effects. Accumulative effects of radiation exposure to OR teams is far more concerning.
<b>Integrated Lighting</b>	Integrates In-Sight Surgical Lighting™ directly illuminating the surgical field without significant shadowing. It uses cool running LED lights and has several modes for individual surgeon preferences.	Relies on overhead lighting that is often some distance away from the field resulting in diffuse lighting. The surgeon's own hands and tools may cast shadows. Some lights may add substantial heat to the OR environment.
<b>Storage of Multiple Hole Depths</b>	Stores multiple drill hole depths that can be referenced later on the touch screen.	Need to manually depth measure each hole. There is no automated tracking.
<b>Touch Screen Controller</b>	Clearly displays depth measurements as surgeons drill in real-time. A surgeon can scroll back to review prior hole depths. Surgeons can use the touch screen to change drilling options from free hand to bicortical mode. It easily attaches to an IV pole in the OR.	Has no controller or sensing software.
<b>Ergonomic Design</b>	Features a balanced handle and weight distribution for ultimate comfort. It is electric powered for continuous, dependable function. It is light weight and the control screen has easy to use, touch screen features.	Creates an unbalanced drilling motion for some surgeons due to bottom heavy battery.



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## IntelliSense Drill Technology® Additional Potential Benefits

The overall savings of the IntelliSense® Drill in your OR may be considerable. The potential savings =  
**\$1850 PER SURGERY**

Note: The calculations above are based on the following general assumptions. References and calculations available upon request.

- An average of \$62/minute in operating room (OR) costs.
- An average of 10 holes drilled per surgery.
- A conservative average of 12% in wasted screws due to incorrect size or misplacement.

POTENTIAL PER SURGERY SAVINGS	
DEPTH MEASUREMENT	\$620
WASTED SCREWS	\$120
REPLACING SCREWS	\$370
FLUOROSCOPY/IMAGING TIME	\$496
LIABILITY RISK	\$244
<b>SAVINGS TOTAL</b>	<b>\$1,850</b>

The table below illustrates every constituent in the surgical care process values the benefits of the IntelliSense Drill Technology®, including patients, surgeons, hospitals and insurers/payers.

BENEFITS				
FEATURES	PATIENT	SURGEON	HOSPITAL	PAYER/INSURER
Fewer Surgical Errors	✓	✓	✓	✓
Less Radiation Exposure	✓	✓	✓	
OR Time Savings	✓	✓	✓	✓
Legal Liability & Defense		✓	✓	✓
Wasted Screws			✓	✓

We believe the IntelliSense Drill Technology® will bring benefits to your hospital/surgical center, surgeons and patients. We look forward to partnering with you.  
For further information, please visit our website.