

REAL-TIME

INTRAOPERATIVE

bk5000 NEUROSURGERY

NEUROSURGICAL IMAGING

- Dedicated neurosurgical ultrasound system
- Simple workflow and small footprint
- Fully-sterilizable neurosurgery transducers that can make direct contact with the brain or dura
- Immediate, auto-optimized imaging using the No-touch Autogain and Auto Focus features

PREMIUM, REAL-TIME ULTRASOUND IMAGING THAT ADVANCES NEUROSURGICAL PROCEDURES

Ultrasound can advance neurosurgical procedures by helping you navigate and identify lesions and anatomical structures in **real-time**. The bk5000 provides immediate, auto-optimized images that allow you to see the information you need, faster.

VISUALIZATION AND PLANNING

Neurosurgical intraoperative ultrasound works in real-time to help provide a complete overview of brain/lesion anatomy and lesion localization, and can assist in the identification of brain shift after pre-operative scans.



The burr-hole transducer shows tumors from a small insertion diameter, with an extended field of view

TUMOR RESECTION: EVALUATION AND MAPPING

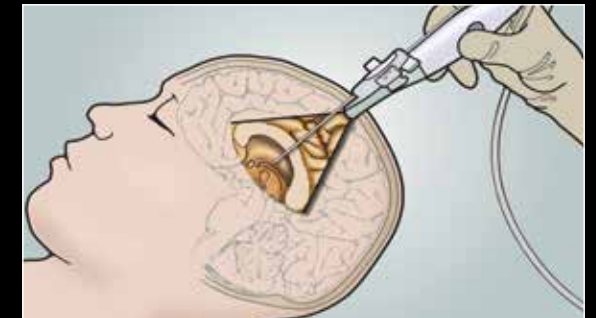
Intraoperative ultrasound helps surgeons spare eloquent areas of the brain during tumor resection surgery. Repeated ultrasound scans throughout surgery allow real-time guidance on resection extent, and brain tissue characterization can assist in the assessment of residual tumor remnants.



Acquiring intraoperative ultrasound images of the extent of resection takes only a few seconds

SHUNT PLACEMENTS

Intraoperative ultrasound helps to guide safe and quick shunt placements, with accurate detection and targeting of the ventricle in question. With our burr-hole transducer and single-use needle guides, shunt placements may be performed with one hand.



The burr-hole transducer's extended field of view gives a wide view of brain anatomy and assists with safe shunt placement



The craniotomy transducer shows superb details of brain anatomy



The craniotomy transducer shows residual glioma in the course of resection



The burr-hole transducer shows ventriculoperitoneal shunt placement with needle guidance

REAL CLINICAL IMPACT WITH HIGH-RESOLUTION REAL-TIME IMAGING



Falx meningioma with color Doppler
N13C5 craniotomy transducer



High-grade tumor
N13C5 craniotomy transducer



Posterior fossa mets from melanoma
N13C5 craniotomy transducer



4th ventricle
N13C5 craniotomy transducer



Highly-detailed brain tissue
N13C5 craniotomy transducer



Posterior fossa cyst transverse
N13C5 craniotomy transducer



Low-grade glioma. Transverse view.
Pediatric brain surgery
N11C5s burr-hole transducer

DEDICATED NEUROSURGICAL ULTRASOUND SOLUTION

FUNCTION AND SIMPLICITY IN DESIGN

- High-resolution, real-time images with superb anatomical details.
- Intuitive keyboard design.
- Immediate, auto-optimized imaging using the No-touch Autogain and Auto Focus features
- Rapid boot time and up to two hours of plug-free imaging.
- Sterilizable remote control for convenient control of the system in the sterile field.



SPECIALIZED TRANSDUCERS DESIGNED FOR NEUROSURGERY

- Specialized and sterilizable neurosurgery transducers provide detailed images of the brain and spinal cord.
- Convenient Smart™ button activates the transducer, then freezes, stores and prints images.
- Disposable, easy-to-use needle guides assist with shunt placement procedures.
- Long transducer cables (2.2 m / 7.3 ft) allow flexible movement in the OR.



The small footprint burr-hole transducer is designed to image the brain and guide procedures with precision.



The craniotomy transducer is ideal for guiding biopsy procedures, determining the adequacy of a resection, and differentiating vascular malformation from adjacent hematoma.



The 'Hockey Stick' transducer² provides excellent resolution in the extreme near-field. Its flexible tip gives access to hard-to-reach areas, and can be adjusted to 0°, 30°, 60° and 90° positions.

INTEGRATION WITH NEURONAVIGATION SYSTEMS

- The bk5000 integrates seamlessly with neuronavigation systems including Brainlab Kick® and Curve™.³
- Real-time overlay of ultrasound imaging on pre-operative CT/MRI provides immediate information about brainshift.
- Neuronavigation provides transducer orientation.



² The 'Hockey Stick' transducer is for future release for neurosurgery on the bk5000.

³ Kick® and Curve™ Neuronavigation Systems are available from Brainlab. Kick® is a registered trademark of Brainlab AG in Germany and/or the US. Curve™ is a trademark of Brainlab AG in Germany and/or the US. Digital connection with Brainlab on bk5000 for future release.

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