



TITLE	Brain Mapping Indications and Techniques 1st Edition
PRICE	€134.99
ISBN	9781684200924
PUBLICATION DATE	February 2020
FORMAT	Hardcover · 120 Illustrations · 212 Pages · 8.5 X 11 IN
MEDIA CONTENT	Complimentary MedOne eBook and Videos
SPECIALTY	Neurosurgery, Neurology, Oncology
LEVEL	Residents and above

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DESCRIPTION

Comprehensive resource features state-of-the-art brain mapping techniques and pearls from international recognized neurosurgeons Alfredo Quinones-Hinojosa and Kaisorn Chaichana and coeditor Deependra Mahato

Despite advances in imaging techniques to identify eloquent cortical brain regions and subcortical white matter, brain mapping is the only method for obtaining real-time information with high sensitivity and specificity. This groundbreaking technology greatly enhances the neurosurgeon's ability to safely resect challenging lesions located in eloquent areas of the brain. *Brain Mapping: Indications and Techniques* by esteemed neurosurgeons Alfredo Quinones-Hinojosa, Kaisorn Chaichana, and Deependra Mahato, is a comprehensive overview of the most critical aspects of brain mapping from leaders in the field.

The book starts with discussion of preoperative aspects, including the history of brain mapping and anatomy of eloquent cortical and eloquent white matter tracts. Subsequent chapters cover perioperative aspects of brain mapping including indirect and direct functional mapping, the role of neurophysiology, awake craniotomy operating room set-up and surgical instruments, and anesthetic considerations. Diverse awake and asleep brain mapping techniques are described for various intracranial pathologies, as well as advances in postoperative recovery of neurological function including physical and speech therapy.

Key Features

- Dedicated chapters focused on essential sensory functions cover speech mapping, asleep motor mapping, awake subcortical language mapping, and visual cortex and visual tract mapping
- Disease- and region-specific techniques that encompass extra-operative brain mapping for epilepsy, surgery mapping for insular tumors, seizure mapping, and brainstem and spinal cord mapping
- Clinical pearls on postoperative issues such as rehabilitation, emergence of DBS-evoked functional connectomics, brain neuroplasticity, and radiating eloquent areas

- High-quality illustrations and videos enhance understanding of brain regions targeted in different mapping techniques

This is the most comprehensive resource available to date on brain mapping and surgery in eloquent regions. As such, it is a must-have for neurosurgical residents, fellows, practicing neurosurgeons, and allied healthcare practitioners who treat patients with brain conditions.

This book includes complimentary access to a digital copy on <https://medone.thieme.com>.

COMPETITION *Functional Mapping of the Cerebral Cortex: Safe Surgery in Eloquent Brain*, Byrne, 245 pages, Springer, 2015, \$99.

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