This fifth edition continues the tradition of excellence with thorough coverage of recent trends and changes in the clinical diagnosis and treatment of CNS diseases, detailed relevant neuropathologic, genetic, and clinical findings, and how those changes relate to MRI findings. It remains a comprehensive, internationally acclaimed, state-of-the-art reference for all who have an interest in neuroradiology – trainees to experts in the field, basic science researchers, and clinicians.

- Shows how to generate state-of-the-art images and define diagnoses from crucial clinical/pathologic MR imaging correlations for neurologic, neurosurgical, and psychiatric diseases spanning fetal CNS anomalies to disorders of the aging brain.
- Explains new imaging methodology (hardware- and software-based) in a variety of clinical settings.
- Discusses emerging, clinically relevant research in well-established neurologic disorders such as stroke and brain tumors, as well as developing clinical applications in non-traditional areas, including neurodegenerative and psychiatric disorders and fetal anomalies.
- Analyzes the detail of clinically important imaging findings; defines the role of MRI findings in the clinical setting of neurologic disease; illustrates the pathologic basis for MRI findings; and explores the use of emerging MRI methods as new contributions to diagnosis and treatment.
- Emphasizes that the diagnosis of neurologic disease must still be grounded in evidence and based on “the known” – neuropathology, genetics, clinical history, and proven imaging findings – rather than on new techniques often used solely because they are novel.
- Presents the combined knowledge and expertise of renowned neuroradiologists, innovative MRI physicists, and experienced leading clinical neurospecialists from all over the world.
Magnetic Resonance Imaging of the Brain and Spine

Rehabilitation & Physical Medicine Residents