Contents

Foreword ix
Commentary by William Hendee xi
Clarification and Acknowledgment xiii
Introduction: The Role of Imaging in Medicine xv

1 Physics of Radiation and Matter 1
2 Anatomy, Physiology, and Pathology in Imaging 55
3 Imaging Science 89
4 Radiobiology, Dosimetry, and Protection 143
5 Imaging Operation and Infrastructure 181
6 Projection X-ray Imaging 217
7 Volumetric X-ray Imaging 243
8 Nuclear Medicine 271
9 Ultrasonography 305
10 Magnetic Resonance Imaging 339
Index 453