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| Nota di contenuto | Foreword -- Part 1: Medical and Surgical Aspects of Total Hip Arthroplasty -- Pre-existing Conditions of Total Hip Arthroplasty -- Surgical Approaches for Total Hip Arthroplasty -- Total Hip Arthroplasty Approach Comparisons -- Postoperative Total Hip Arthroplasty Complications -- Patient Care Upon Total Hip Arthroplasty Completion -- Medicare of Total Hip Arthroplasty -- Part 2: Biomedical Engineering Aspects of Total Hip Arthroplasty -- Biomechanics of Total Hip Arthroplasty -- All-inclusive Impact of Robotics Applications on Total Hip Arthroplasty: Overall Impact of Robotics on Total Hip Arthroplasty Patients From Manufacturing of Implants to Recovery After Surgery -- Optimization for Total Hip Arthroplasty Applications -- Biomechanical Success of Traditional Versus Robotics-assisted Total Hip Arthroplasty -- Artificial Intelligence, Deep Learning, and Machine Learning Applications in Total Hip Arthroplasty -- Advancing Engineering of Total Hip Arthroplasty -- Glossary. |
| Sommario/riassunto | Total Hip Arthroplasty: Medical and Biomedical Engineering and Science Concepts provides an extensive overview of the most recent |

advancements in total hip arthroplasty (THA) through a thorough review of the literature in medicine, engineering, mathematics, computing, and related technologies. Coverage includes the most recent engineering and computing techniques such as robotics, biomechanics, artificial intelligence, and optimization, as well as the medical and surgical aspects of pre-existing conditions, surgical procedure types, postoperative complications, and patient care. This book will be a valuable introductory reference for academics, students, and researchers to THA concepts and advances. Provides a broad introduction to the subject; · Offers extensive coverage and ideas for furthering THA advancements and research; Explores the most recent engineering and computing techniques in THA. E .