

Third Edition

OCCUPATIONAL BIOMECHANICS



Don B. Chaffin • Gunnar B. J. Andersson • Bernard J. Martin

From the reviews of the *Second Edition*:

"[This book] represents a distillation of the authors' combined years of experience in applying biomechanics in various industries and work situations . . . I recommend this book to anyone, regardless of discipline, who is interested in understanding the many biomechanical factors which must be considered when trying to effect the prevention and reduction of musculoskeletal injuries in the workplace."

—*Journal of Biomechanics*

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Now in its third edition, this volume stands as the definitive text on occupational biomechanics—a science dealing with the physiological loads and stresses placed on the musculoskeletal system during physical work. It expertly weaves engineering and medical information from diverse sources and provides a coherent treatment of the biomechanical principles underlying the well-designed and ergonomically sound workplace. In this revision, the authors update the state of current knowledge in several key areas, including epidemiological support of occupational biomechanics, mechanical aspects of muscle actions during work, biomechanical models of exertions, postural-analysis methods, materials and load-handling evaluation methods, guidelines for various types of work, design considerations of VDT workstations, hand tools, and more.

Complete with 75 new illustrations and over 200 new references, *Occupational Biomechanics* is an excellent one-stop reference for students and professionals in industrial engineering, product and process design, medicine, and occupational health and safety.

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Foreword

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