

## Applied Ergonomics

David Alexander and Randy Rabourn, Editors

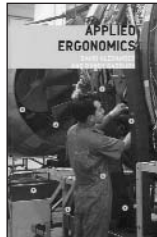
Publication #03-009 \$104.95

The chapters in *Applied Ergonomics* are a series of papers written by ergonomics practitioners in various applications, situations, and environments, and promote the “real world” application of ergonomics principles. The 35 chapters are organized into types of ergonomics applications and include:

- Manufacturing and Production Processes
- Support and Service Jobs
- Office Environments
- Potpourri
- Health Management
- Design

Model programs, survey sheets, cost benefit analysis examples, audits, and critiques of software and office furniture are also provided.

ISBN: 978-0-415-23852-6. © 2001. 336 pages.



## NEW TITLE

### Biomechanics in Ergonomics, Second Edition

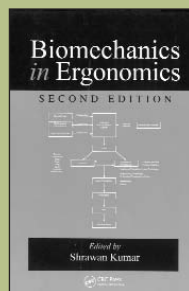
Shrawan Kumar, Editor

Publication #08-014 \$99.95

This book provides a thorough discussion of biomechanics as it relates to the discipline of ergonomics. Because each of the spheres of the body (musculoskeletal, ligaments, tendons, tissue, upper and lower extremities) work together in performing work-related activities, the book applies biomechanics to the entire human system to best achieve comfort, health, and safety of workers. Topics covered include:

- Description of biomechanical risk factors and provides exposure assessment tools and techniques
- Examination of anatomy function and biomechanical models for the shoulders
- Scientific bases and mechanisms of how risk factors precipitate injuries
- Consideration of posture, postural loads, posture correction, and their impact on body regions, working environments, and activities
- Ergonomics and biomechanics of prolonged sitting, climbing ladders, and slips, trips, and falls

ISBN: 978-0-8493-7908-6. © 2008. 744 pages.



## NEW EDITION

### Biomechanics of the Upper Extremities: Mechanics, Modeling, and Musculoskeletal Injuries, Second Edition (Available late 2009) (Current edition is available now!)

Andris Freivalds

Publication #05-026 \$119.95

The Second Edition of this text is now expanded to include recent findings regarding job stressors and a variety of ergonomic solutions. It provides up-to-date research on the biomechanics of the upper limbs and the mechanics of neuromuscular systems and discusses risk factors for various disorders and tools used to identify their causes. Qualified instructors can access a supporting website offering materials such as PowerPoint slides and sample exams and an instructor’s manual with complete solutions. Topics covered in this text include:

- Introduction to Biomechanics
- Structure of the Musculoskeletal System
- Neuromuscular Physiology and Motor Control
- Modeling of Muscle Mechanics
- Models of the Upper Limbs
- Musculoskeletal Disorders and Risk Factors
- Instrumentation. Job and Worksite Analysis
- Hand Tools
- The Office Environment

ISBN: 978-1-420091-19-9. © 2009. 650 pages.

**NEW EDITION**

**Designing for Older Adults: Principles and Creative Human Factors Approaches, Second Edition**

Wendy A Rogers, Arthur D Fisk, Neil Charness, Sara J Czaja, Joseph Sharit

Publication #05-014 \$69.95

The authors have revised and updated each of the original chapters from the First Edition of *Designing for Older Adults: Principles and Creative Human Factors Approaches*, rearranged some of them for a more natural flow, added a new section of tutorials, and provided updated recommended readings. Two new applications chapters, *Transportation* and *Aging-in-Place*, have been added to the Second Edition; a new *Tutorials* section that provides hands-on guidance for critical issues has been added; and the *Design Guidelines* section has been reorganized to allow for better flow of topics.

Reflecting the multidisciplinary nature of the field, this multidisciplinary author team translates a vast array of academic literature into guidelines without losing its strong grounding in science. They discuss the role the field of human factors plays in creating technology that is effective and safe to use. This book provides information specific enough to be immediately applicable yet general enough to be relevant to technologies of the future.

ISBN: 978-1-420080-55-1. © 2009. 232 pages.



**Human Factors Methods for Design: Making Systems Human-Centered**

Christopher P. Nemeth

Publication #05-001 \$124.95

This in-depth field guide is primarily geared towards incorporating human factors and ergonomic concepts into the research and development phases of products and systems. In three sections, the book presents an overview of ergonomics and human factors, including human abilities and limitations, and ideas on how to identify potential problems during the product development stage; a variety of human factors methods for identifying and addressing human factors issues; and ideas on cost effectiveness, effecting change, and communication of human factors considerations. Specific topics include:

- Creating products for human use, including systems, services, and environments
- Creating products that succeed at functional, legal, and ethical levels
- Basics of human behavior and physiology in the context of product development
- Ways to recognize, analyze, and solve problems

ISBN: 978-0-415-29798-1. © 2004. 416 pages.

*“If you want to learn about human capabilities and limitations, human factors design parameters, and methods for identifying human factors problems in the design phase, this will be a good primer for you.”*

— Denise C. Brever, CIH, CSP



**Human Response to Vibration**

Neil J. Mansfield

Publication #05-011 \$93.95

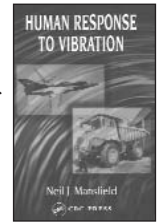
Written with the consultant, practitioner, researcher, and student in mind, this publication offers authoritative guidance and thorough coverage on the subject of vibration as it relates to occupational and non-occupational applications. Whole-body vibration, hand-arm vibration, motion sickness, vibration measurements and standards are discussed in detail:

- Wave theory, vibration classification, and vibration axes are introduced
- Whole-body vibration standards are examined
- Vibration measurement topics, including measurement flow, and human vibration meters are analyzed
- And More!

Basic introductory information, as well as detailed technical information are offered, along with a detailed table of contents, index, and chapter summaries.

ISBN: 978-0-415-28239-0. © 2004. 272 pages.

*“Very well written. Best current summary on vibration that this reviewer has ever seen.”* — James Martin, CIH



**Kodak’s Ergonomic Design for People at Work, Second Edition**

Eastman Kodak

Publication #4792 \$150

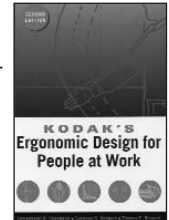
This long-awaited revision to one of the best-known and well-respected guides on the subject of ergonomics in the workplace is the only book that covers ergonomics and human factors from an applied practitioner’s approach.

The Second Edition of *Kodak’s Ergonomic Design for People at Work* presents information in simple, easy-to-understand terms. It discusses how to solve problems on the job and provides step-by-step guidelines for implementation.

The following topics are covered:

- Ergonomics Design Philosophy
- Evaluation of Job Demands
- Workplace Design
- Equipment Design
- Human Reliability and Information Transfer
- Work Design
- Manual Handling in Occupational Tasks
- Environment

ISBN: 978-0-471-41863-4. © 2003. 736 pages.



**Occupational Biomechanics, Fourth Edition**

*Don B. Chaffin, Gunnar B.J. Andersson and Bernard J. Martin*

Publication #0822 \$125

This book describes the mechanical side of ergonomics, and weaves engineering and medical information into a comprehensive text for professionals in medicine, industry, occupational health and safety, and product design. Updates to the Fourth Edition include:

- Mechanical aspects of muscle contraction, muscle fatigue, and muscle action
- Lifting limits in manual materials handling
- Guidelines for seated work
- A new two-column format
- New illustrations and concepts in biomechanics based on over 50 new references

With over 200 illustrations and 500 references, the latest edition still provides readers with basic principles of mechanics and relevant musculoskeletal anatomy and physiology to provide the scientific basis for applied methods and guidelines needed to evaluate, specify, and design safe workspaces.

ISBN: 978-0-471-72343-1. © 2006. 392 pages.



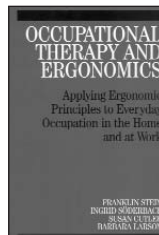
**Occupational Therapy and Ergonomics: Applying Ergonomic Principles to Everyday Occupation in the Home and at Work**

*Franklin Stein, et al.*

Publication #07-002 \$80

This book integrates ergonomic theory and research and applies it to clinical occupational therapy practice. Current ergonomics is a broad field, and this book reflects that by incorporating ergonomic principles into interventions and preventative strategies in home, work, leisure, and school environments, and includes psychosocial aspects such as stress management. Case studies to illustrate applications in the differing fields are also included.

ISBN: 978-1-861565-04-4. © 2006. 356 pages.



**Office Ergonomics**

*Karl H.E. Kroemer and Anne D. Kroemer*

Publication #02-008 \$52.95

Job satisfaction is the core of this practical book. How to work “at ease and efficiently” is the theme throughout. It provides a comprehensive approach to job satisfaction by focusing on the needs of the individual worker, as well as on office design and conditions. *Office Ergonomics* suggests how to:

- Set up a company and home office
- Interact with colleagues
- Organize and pace work
- Select and arrange equipment and furniture
- Manage good lighting, the sound environment, and climate

The nine chapters are fast-paced and readable, contain drawings and brief case studies, and end with practical design recommendations.

ISBN: 978-0-7484-0953-2. © 2001. 258 pages.



**NEW TITLE**

**Office Ergonomics: Practical Applications**

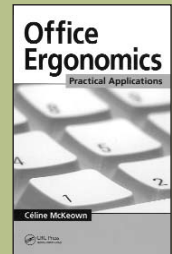
*Céline McKeown*

Publication #08-013 \$69.95

*Office Ergonomics: Practical Applications* is an easy-to-read text that covers each aspect of an office workstation — postures, design of furniture, use of computers and related devices, and important organizational issues that can have ergonomic impact. The book also covers mobile and home computer use; offers advice for creating suitable conditions to accommodate all workers; and includes coverage of a wide range of input methods and current trends, such as touch screens, voice recognition software, and wireless technology and laptops.

There are also chapters dedicated to work-related ill health — primarily upper limb disorders — disability, risk assessment, and case studies.

ISBN: 978-0-8493-7975-8. © 2008. 272 pages.



## Office Ergonomics Safety Guide, 5th Edition

Canadian Centre for Occupational Health and Safety

Publication #9759 \$12

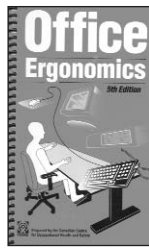
The *Office Ergonomics Safety Guide* is a handy on-the-job reference guide that helps office employees to identify ergonomic hazards and take remedial action. Here are just a few of the topics covered in this 100-page handbook:

- Criteria for job design and adequate office environment
- Details on workstation layout and design
- How to select and adjust an office chair
- Organization of tasks to prevent work-related injuries

The guide is designed for office workers, managers, occupational health nurses, health care providers and human resource personnel. It would make a useful addition to any employee information and safety training package. The *Office Ergonomics Safety Guide* enables workers and supervisors to:

- Recognize workplace hazards
- Prevent accidents and injuries by safe work practices and use of personal protective equipment
- Deal with accidents and emergencies
- Understand duties and rights as outlined in US and Canadian OHS legislation
- Contact relevant government departments to find health and safety information and advice

ISBN: 978-0-660-18977-2. © 2002. 100 pages.



## Visual Ergonomics Handbook

Jeffrey Anshel, Editor

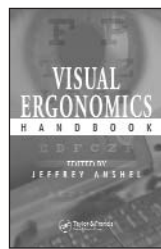
Publication #06-003 \$97.95

This handbook provides a clear explanation of the eyes and visual system, a discussion of computer displays, and how the arrangement of a computer workstation can contribute to or alleviate visual problems that may be encountered during prolonged computer use. Information from leading experts in the fields of optometry, ergonomics, eye safety, and occupational medicine is integrated into this cutting-edge text for eye-care issues in the office and industrial settings.

Specific topics discussed include:

- Environmental issues and vision in the workplace
- Signs and symptoms of Computer Vision Syndrome
- Evaluation of eye safety risks and resources for the blind and visually impaired
- The link between general ergonomic principles and the vision of computer users
- Eye safety in industrial settings, including government standards, types of equipment, visual considerations, and contact lenses

ISBN: 978-1-56670-682-7. © 2005. 232 pages.



## Work Design: Occupational Ergonomics, Seventh Edition

Stephan Konz and Steven Johnson

Publication #9145 \$90

The Seventh Edition of *Work Design: Occupational Ergonomics* gives readers the tools they need to achieve work design that is ergonomically effective while remaining economically feasible. Whether studying work design/ergonomics in a college classroom, preparing for the Board of Certification in Professional Ergonomics (BCPE) exam, or working as a professional in the field, readers can depend on this text to provide them with the information they need.

*Work Design* is a single source for ergonomics, work design, and work measurement. Its engineering orientation equips readers with practical design information and procedures; its explicit organization, engaging, conversational style, and clear explanations make it easy to read and understand. The book's many charts and graphics dynamically illustrate important concepts and principles, and its extensive references give readers confidence in the text.

Highlights include:

- Chapters on: office ergonomics; engineering design; determining time/job; safety; the chemical environment; error reduction; temporal ergonomics; standard ergonomics.
- Reorganization and fewer chapters, resulting in a streamlined presentation of material.
- Downloadable version of the ERGO software (The software offers easy access to more than 100 ergonomics tools divided into categories such as Forms, Anthropometry, Environment, Lift/Move, Work Physiology, Statistics/Math, Time, and Units. Metric or U.S. units may be used with the software.)

ISBN: 978-1-890-871-79-6. © 2008. 620 pages.

