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Nota di contenuto	THE WORKING BACK; CONTENTS; ACKNOWLEDGMENTS; CHAPTER 1 INTRODUCTION; 1.1 Audience for the Book; 1.2 Apolitical Causality Assessment; 1.3 A Systems View of Low Back Pain Causality; 1.4 The Reality of Work; 1.5 How Might the Different Aspects of Work Be Associated with Back Pain; 1.6 Organization of the Book; CHAPTER 2 BACK PAIN MAGNITUDE AND POTENTIAL RISK FACTORS; 2.1 What is Back Pain?; 2.2 How Common is Back Pain?; 2.3 Back Pain at Work; 2.4 Epidemiology of Work Risk Factors; 2.5 Epidemiology of Physical Risk Factors; 2.6 Epidemiology of Individual (Personal) Risk Factors; 2.6.1 Age 2.6.2 Gender2.6.3 Anthropometry; 2.6.4 Fitness/Strength; 2.6.5 Alcohol; 2.6.6 Smoking; 2.6.7 Heredity/Genetics; 2.6.8 Social Class and Psychological Factors; 2.7 Epidemiology of Work-Related Psychosocial/Organizational Factors; 2.8 Potential Interaction of Physical and Psychosocial Factors; Key Points; CHAPTER 3 FUNCTION, STRUCTURE, AND SUPPORT OF THE BACK; 3.1 Body Coordinates; 3.2 Bony Structures of the Spine; 3.3 The Disc (and the Spinal Joint); 3.4

Functional Spinal Unit; 3.5 Spine Support; 3.6 Ligaments; 3.7 Muscles; 3.8 Fascia; 3.9 Nerves; 3.10 Blood Vessels
3.11 End Plates and Nutrition3.12 Facets; 3.13 The System; Key Points; CHAPTER 4 THE PROCESS OF PAIN; 4.1 What is Pain?; 4.2 Origins of Pain; 4.3 Pain Transmission; 4.4 The Pain Process; 4.5 The Inflammatory Process (Cytokines); 4.6 Peripheral Nervous System Sensitization; 4.7 Neuropathic Pain: The Cytokine Cascade and Nerve Sensitization; 4.8 Pain Mechanisms of the Central Nervous System; 4.9 Role of the Environment in Central Sensitization; 4.10 Implications for Low Back Pain; 4.11 Nerves at Risk of Sensitization; 4.12 Tissues at Risk of Sensitization; 4.13 Disk and Nerve Roots
4.14 Facet Joints4.15 Muscular-Based Pain; 4.16 Lumbar Nerve Roots; 4.17 Relationship between Tissue Loading and Pain; 4.18 Conclusions; Key Points; CHAPTER 5 POTENTIAL PATHWAYS TO BACK PAIN; 5.1 Views of Back Pain Causality; 5.2 A Unifying Model of Low Back Pain Pathways; 5.3 The Support Structure Disruption Pathways; 5.3.1 Support Structure Tolerance; 5.4 Disc Tolerance Summary; 5.5 Pain Tolerance; 5.6 The Muscle Function Disruption Pathway; 5.7 The Role of Individual Differences in the Pain Pathways; 5.8 System Feedback; 5.9 Summary; Key Points
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6.7 Biologically Driven Modeling of Spine Loading

Sommario/riassunto

A systems approach to understanding and minimizing the causes of low back pain in the workplaceLow back pain affects 80% of the population at some point during their lifetime; it is responsiblefor over 40% of the compensation costs for work-related injuries. This book provides an understanding of the mechanisms influencing low back pain in the workplace and indicates how low back pain might be prevented, saving employers extraordinary amounts in medical costs and protecting workers from the most common on-the-job injury. With a unique, multidisciplinary perspective that shows how vario