

# Table of Contents

<b>Contributors</b>		<b>ix</b>
<b>Reviewers</b>		<b>xiii</b>
<b>Preface</b>		<b>xv</b>
<b>Chapter 1</b>	<b>Form and Function of Articular Cartilage</b>	<b>1</b>
	<i>Henry J. Mankin, MD</i>	
	<i>Van C. Mow, PhD</i>	
	<i>Joseph A. Buckwalter, MD</i>	
	<i>Joseph P. Iannotti, MD, PhD</i>	
	<i>Anthony Ratcliffe, PhD</i>	
<b>Chapter 2</b>	<b>Anatomy, Biology, and Biomechanics of Tendon, Ligament, and Meniscus</b>	<b>45</b>
	<i>Savio L-Y. Woo, PhD</i>	
	<i>Kai-Nan An, PhD</i>	
	<i>Steven P. Arnoczky, DVM</i>	
	<i>Jennifer S. Wayne, PhD</i>	
	<i>Donald C. Fithian, MD</i>	
	<i>Barry S. Myers, MD, PhD</i>	
<b>Chapter 3</b>	<b>Anatomy, Physiology, and Mechanics of Skeletal Muscle</b>	<b>89</b>
	<i>William E. Garrett Jr, MD, PhD</i>	
	<i>Thomas M. Best, MD, PhD</i>	
<b>Chapter 4</b>	<b>Form and Function of Bone</b>	<b>127</b>
	<i>Frederick S. Kaplan, MD</i>	
	<i>Wilson C. Hayes, PhD</i>	
	<i>Tony M. Keaveny, PhD</i>	
	<i>Adele Boskey, PhD</i>	
	<i>Thomas A. Einhorn, MD</i>	
	<i>Joseph P. Iannotti, MD, PhD</i>	
<b>Chapter 5</b>	<b>Growth Plate and Bone Development</b>	<b>185</b>
	<i>Joseph P. Iannotti, MD, PhD</i>	
	<i>Steven Goldstein, PhD</i>	
	<i>Janet L. Kuhn, PhD</i>	
	<i>Louis Lipiello, PhD</i>	
	<i>Frederick S. Kaplan, MD</i>	
<b>Chapter 6</b>	<b>Molecular and Cellular Biology of Inflammation and Neoplasia</b>	<b>219</b>
	<i>Dempsey S. Springfield, MD</i>	
	<i>Gary E. Friedlaender, MD</i>	
	<i>Nancy Lane, MD</i>	

<b>Chapter 7</b>	<b>Bone Injury, Regeneration, and Repair</b>	<b>277</b>
	<i>Robert F. Ostrum, MD</i> <i>Edmund Y.S. Chao, PhD</i> <i>C. Andrew L. Bassett, MD</i> <i>Carl T. Brighton, MD, PhD</i> <i>Thomas A. Einhorn, MD</i> <i>Tyler S. Lucas, MD</i> <i>Hannu T. Aro, MD</i> <i>Myron Spector, PhD</i>	
<b>Chapter 8</b>	<b>Peripheral Nerve Physiology, Anatomy, and Pathology</b>	<b>325</b>
	<i>Sue C. Bodine, PhD</i> <i>Richard L. Lieber, PhD</i>	
<b>Chapter 9</b>	<b>Biomechanics</b>	<b>397</b>
	<i>Van C. Mow, PhD</i> <i>Evan L. Flatow, MD</i> <i>Robert J. Foster, ScD</i>	
<b>Chapter 10</b>	<b>Biomaterials</b>	<b>447</b>
	<i>Alan S. Litsky, MD, ScD</i> <i>Myron Spector, PhD</i>	
<b>Chapter 11</b>	<b>Conditions Affecting Orthopaedic Surgical Practice</b>	<b>487</b>
	<i>Thomas A. Einhorn, MD</i> <i>Tyler S. Lucas, MD</i> <i>Robert W. Molinari, MD</i> <i>Louis Flancbaum, MD</i> <i>Jean C. Burge, PhD, RD</i> <i>John L. Esterhai Jr, MD</i> <i>Dempsey S. Springfield, MD</i> <i>Lawrence B. Bone, MD</i>	
<b>Chapter 12</b>	<b>Kinesiology</b>	<b>519</b>
	<i>Sheldon R. Simon, MD</i> <i>Hannu Alaranta, MD, PhD</i> <i>Kai-Nan An, PhD</i> <i>Andrew Cosgarea, MD</i> <i>Richard Fischer, MD</i> <i>Joel Frazier, MD</i> <i>Christopher Keading, MD</i> <i>Michael Muha, MD</i> <i>Jacquelin Perry, MD</i> <i>Malcolm Pope, PhD, DMSc</i> <i>Peter Quesada, PhD</i>	
<b>Chapter 13</b>	<b>Experimental Design and Statistical Analysis</b>	<b>623</b>
	<i>Richard L. Lieber, PhD</i>	
	<b>Glossary</b>	<b>667</b>
	<b>Index</b>	<b>683</b>