

Contents

1 Functional Morphology of Muscles and Tendons	1
James N. Fisher, Alessia Di Giancamillo, Eliana Roveda, Angela Montaruli, and Giuseppe M. Peretti	
2 Tendon Biomechanics	15
Zakary M. Beach, Daniel J. Gittings, and Louis J. Soslowsky	
3 Pathophysiology of Tendinopathy	23
Michael Girdwood, Sean Docking, Ebonie Rio, and Jill Cook	
4 Tendon Healing	45
Thierry Pauyo, Elmar Herbst, and Freddie H. Fu	
5 Muscle-Tendon Junction Injury	51
William E. Garrett Jr and Mallory S. Faherty	
6 MRI of Muscle and Tendon Pathology	61
Giuseppe Monetti, Gianluca Rampino, and Giuseppe Rusignuolo	
7 Ultrasound of Muscle and Tendon Pathology	75
Giuseppe Monetti, Marco Fogli, and Gianluigi Mele	
8 The Dynamic Magnetic Resonance Imaging	87
Giuseppe Monetti, Gianluca Rampino, and Giuseppe Rusignuolo	
9 Classification of Muscle Lesions	95
Nicola Maffulli, Rocco Aicale, and Domiziano Tarantino	
10 Prevention of Musculotendinous Pathologies.	103
Peter Myers, Joanne Bullock-Saxton, and John Fitzgerald	
11 Why the Tendon Tears and Doesn't Like to Heal	111
Pietro Simone Randelli, Luca Pulici, Nicolò Cosmelli, and Alessandra Menon	
12 Growth Factor Therapy for Tendon Regeneration	119
R. Cugat, E. Alentorn-Geli, J.M. Boffa, X. Cuscó, M. Garcia-Balletbo, P. Laiz, E. Mauri, and M. Rius	
13 Biomaterials for Tendon Regeneration.	131
Nuno Seivivas, Guilherme França, Nuno Oliveira, Hélder Pereira, K.W. Ng, António Salgado, and João Espregueira-Mendes	

14	New Strategies for Muscular Repair and Regeneration	145
	M. Cianforlini, V. Coppa, M. Grassi, and A. Gigante	
15	Conservative Treatments for Tendinopathy	157
	F. Tencone, S. Della Villa, and A. Giannini	
16	Use of Nutraceuticals for Tendinopathies	175
	Marco Antônio Percope de Andrade, Guilherme Moreira de Abreu-e-Silva, and Túlio Vinícius Oliveira de Campos	
17	Surgical Treatment of Acute and Chronic Muscle Injuries	181
	F. Benazzo, M. Bargagliotti, A. Combi, and G. Zanon	
18	Rotator Cuff Tendinopathy	193
	Stephanie C. Petterson, Margaret Harvey, and Kevin D. Plancher	
19	Anterosuperior Rotator Cuff Ruptures	205
	Alessandro Castagna, Raffaele Garofalo, and Marco Conti	
20	Long Head of the Biceps Tendinopathy	215
	Andrew E. Apple, Michael J. O'Brien, and Felix H. Savoie III	
21	Medial and Lateral Epicondylitis	223
	L.A. Pederzini and F. Di Palma	
22	Disorders of the Distal Biceps Tendon	231
	Madeleine Bain, Joideep Phadnis, and Gregory Bain	
23	Hand and Wrist Tendinopathies	241
	Margaret Woon Man Fok, Bo Liu, John White, and Gregory Bain	
24	Hip Tendinopathies	255
	Alessandro Aprato, Andrea D'Amelio, Alessandro Bistolfi, Luigi Sabatini, and Alessandro Massè	
25	The Groin Pain Syndrome	273
	G.N. Bisciotti and P. Volpi	
26	Indications for Surgical Treatment in Hamstring Tears	283
	Lasse Lempainen, Janne Sarimo, Pekka Niemi, and Sakari Orava	
27	Patellar Tendon Rupture	289
	Piero Volpi, Emanuele Prospero, Antonio Orgiani, and Alessandro Quaglia	
28	Pathogenesis and Treatment of Patellar Tendinopathy	295
	Ryohei Uchida, Norimasa Nakamura, and Shuji Horibe	
29	Surgical Treatment of Patellar Tendinopathy	305
	Gian Luigi Canata, Valentina Casale, Josè Huylebroek, and Alberto Vascellari	
30	Periarticular Tendinopathies of the Knee	315
	Federico Raggi, Tommaso Roberti di Sarsina, Federico Stefanelli, Alberto Grassi, Cecilia Signorelli, and Stefano Zaffagnini	

31	Pitfalls and Risks of Tendon Harvest About the Knee	325
	Naaman V. Mehta and Robert G. Marx	
32	Triceps Surae Injuries	331
	Fernando Radice, Ausberto Velasquez, and Alejandro Orizola	
33	Achilles Tendinopathy	345
	Kenneth J. Hunt	
34	Tibialis Posterior and Anterior Tendons	355
	Hélder Pereira, Manuel Resende Sousa, Daniel Mendes, Joaquim M. Oliveira, Rui L. Reis, João Espregueira-Mendes, J. Batista, and Pedro Luís Ripoll	
35	Peroneal Tendons	373
	P.A.D. van Dijk and C.N. van Dijk	
36	Insertional Plantar Fasciitis	381
	O. Haruki, S. Guillo, and T. Bauer	
37	Posterior Impingement in the Ankle: “Can There Also Be a Muscular or Tendinous Entity?”	391
	Pieter d’Hooghe	
38	Compartment Syndromes	401
	Giuliano Cerulli, Matteo M. Tei, Gianpiero Cazzato, Giacomo Placella, and Marco Chillemi	
39	Gold-Induced Autologous Cytokine Treatment in Achilles Tendinopathy	411
	Ulrich Schneider, Reinhard Wallich, Gernot Felmet, and William D. Murrell	
40	Shock Wave Therapy for Tendinopathies	421
	Maria Cristina d’Agostino, Elisabetta Tibalt, Kenneth Vincent Craig, and Stefano Respizzi	
	Index	441