
Contents

1	Neuroendocrine Control of Human Testicular Function	1
	Joseph P. Moore Jr. and Stephen J. Winters	
2	The Human Leydig Cell	25
	Peter J. O'Shaughnessy	
3	Human Spermatogenesis and Its Regulation	49
	Haiqi Chen, Dolores Mruk, Xiang Xiao and C. Yan Cheng	
4	Normal and Delayed Puberty	73
	Sasha Howard and Leo Dunkel	
5	Congenital Hypogonadotropic Hypogonadism in Males: Clinical Features and Pathophysiology	95
	Ravikumar Balasubramanian and William F. Crowley Jr.	
6	Male Hypogonadism Resulting from Mutations in the Genes for the Gonadotropin Subunits and Their Receptors.	127
	Ilpo T. Huhtaniemi	
7	Hypogonadism in Males with Congenital Adrenal Hyperplasia	153
	Nike M.M.L. Stikkelbroeck and Hedi L. Claahsen-van der Grinten	
8	Male Hypogonadism Due to Disorders of the Pituitary and Suprasellar Region	169
	Rosario Pivonello, Ciro Salzano, Mariano Galdiero and Annamaria Colao	
9	Klinefelter Syndrome and Other Forms of Primary Testicular Failure.	187
	John K. Amory and William J. Bremner	
10	The Undescended Testis	197
	Peter A. Lee, Christopher P. Houk and Jorma Toppari	

11 Male Hypogonadism and Liver Disease	219
Samuel M. Kim, Swaytha Yalamanchi and Adrian S. Dobs	
12 Male Hypogonadism Due to Cancer and Cancer Treatments	235
Rod T. Mitchell, Jan-Bernd Stukenborg and Kirsi Jahnukainen	
13 Exercise and Male Hypogonadism: Testosterone, the Hypothalamic-Pituitary-Testicular Axis, and Exercise Training	257
Anthony C. Hackney, Travis Anderson and Jennifer Dobridge	
14 Environmental Causes of Testicular Dysfunction	281
Richard M. Sharpe	
15 Sex Hormone-Binding Globulin and the Metabolic Syndrome	305
Geoffrey L. Hammond	
16 An Ensemble Perspective of Aging-Related Hypoandrogenemia in Men.	325
Peter Y. Liu, Paul Takahashi and Johannes D. Veldhuis	
17 Obesity and Aging in Late-Onset Hypogonadism	349
Giulia Rastrelli and Frederick C.W. Wu	
18 Androgen Replacement Therapy in Hypogonadal Men.	367
Jonas Ćeponis, Ronald S. Swerdloff and Christina Wang	
19 Androgen Therapy for Hypogonadism in Men with Chronic Illnesses.	399
Wenyi Zhang, Moizza Shabbir and Peter Y. Liu	
20 Stimulation of Spermatogenesis in Hypogonadotropic Men.	423
Julia Rohayem and Eberhard Nieschlag	
Index	437

Male Hypogonadism

Basic, Clinical and Therapeutic Principles

Winters, S.; Huhtaniemi, I.T. (Eds.)

2017, XIV, 446 p. 90 illus., 42 illus. in color., Hardcover

ISBN: 978-3-319-53296-7

A product of Humana Press