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Altri autori (Persone)	BishopNicolette GleesonMichael <1956-> WalshNeil
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Nota di contenuto	Cover; Exercise Immunology; Title Page; Copyright Page; Table of Contents; Figures; Tables; Technique boxes and group activities; Contributors; Preface; 1 The influence of exercise on infection risk; Learning objectives; Introduction; Causes of infections; Is there a J-shaped relationship between exercise training load and infection risk?; Key points; 2 The human immune system; Learning objectives; Introduction and overview of the immune system; The cellular components of the immune system; Innate immunity; The recognition of foreign material; Acquired or adaptive immunity General mechanism of the acquired or adaptive immune responseMucosal immunity; Regulation of immune function via nerves and hormones; Autoimmune diseases; Factors affecting immune function; Concluding note; Key points; 3 The effects of exercise on blood leukocyte numbers; Learning objectives; Introduction; The effects of a single bout of exercise on circulating leukocyte numbers; Mechanisms involved in the leukocyte response to acute exercise; Factors affecting the leukocyte response to acute exercise; The effects of exercise training on circulating leukocyte numbers; Key points

4 Effects of exercise on innate immune functionLearning objectives; Introduction; Effect of acute exercise on innate immune cell functions; Mechanisms of changes in innate immune function during exercise; Acute effects of exercise on soluble factors; The effect of exercise intensity, duration and subject fitness on the innate immune response to exercise; Effects of exercise training on cellular innate immune function; Key points; 5 Effects of exercise on acquired immune function; Learning objectives; Acquired immunity revisited; Acute exercise and T-cell functions
Acute exercise and B-cell functionKey points; 6 Effects of exercise on mucosal immunity; Learning objectives; Introduction; Immunoglobulin structure and actions; The common mucosal immune system; Secretory IgA; Immune defences in saliva; Acute exercise and mucosal immunity; Exercise training and mucosal immunity; Key points; 7 Effect of extreme environments on immune responses to exercise; Learning objectives; Introduction; Heat stress and immune function; Cold stress and immune function; Altitude, immune function and infection: into the death zone; Air pollution, exercise and immune function
Spaceflight, immune function and infection: the final frontierKey points; 8 Immune responses to intensified periods of training; Learning objectives; Introduction; Recap of the effects of exercise training on innate, mucosal and acquired immune function; Effects of intensified periods of exercise training on immune function; Comparisons of illness-prone athletes with healthy athletes; Effects of overtraining on immunity; Key points; 9 Exercise, nutrition and immune function; Learning objectives; Introduction; Nutrient availability and immune function: mechanisms of action
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Sommario/riassunto

<P>Exercise immunology is an important, emerging sub-discipline within exercise physiology, concerned with the relationship between exercise, immune function and infection risk. This book offers a comprehensive, up-to-date and evidence-based introduction to exercise immunology, including the physiological and molecular mechanisms that determine immune function and the implications for health and performance in sport and everyday life.
</P><P></P><P>Written by a team of leading exercise physiologists, the book describes the characteristics of the immune system and how its components are organise