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Descrizione fisica	1 online resource (809 pages)
Disciplina	611.24
Soggetti	Lungs
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Nota di contenuto	How we came to have lungs and how our understanding of lung function has developed. -- Getting started. -- Development and functional anatomy of the respiratory system. -- Body size and anthropometric measurements. -- Numerical interpretation of physiological variables. -- Basic terminology and gas laws. -- Basic equipment and measurement techniques. -- Respiratory surveys : epidemiological methods. -- The application of analytical technique applied to expired air as a means of monitoring airway and lung function -- Anatomy and function of the thoracic cage and respiratory muscles. -- Lung volumes. -- Lung and chest wall elasticity. -- Forced ventilation volumes and flows. -- Theory and measurement of respiratory resistances. -- The control of airway function and the assessment of airway calibre -- Distribution, measurement and inter-relationship between ventilation and perfusion -- Transfer of gases into the blood of alveolar capillaries. -- Transfer factor for CO and NO. -- Oxygen : uptake and transport in the blood -- Carbon dioxide : gas exchange and acid base balance -- Control of respiration. -- Breathing sensation -- Breathing function in newborn babies -- Normal lung function from childhood to old age. -- Reference values for lung function in white (Caucasian) children and adults. -- Reference values for lung function in non-Caucasians. -- Physiology of exercise and

effects of lung disease on performance. -- Exercise testing and interpretation, including reference values. -- Assessment of exercise limitation, disability and residual ability. -- Exercise in children -- Breathing during sleep and its investigation. -- Hypobaria, high altitude, aviation physiology and medicine -- Immersion in water, hyperbaria and hyperoxia including oxygen therapy. -- Effects of cold and heat on the lung. -- Strategies for assessment of lung function. -- Patterns of abnormal lung function in lung disease -- Lung function patterns in asthma, chronic obstructive pulmonary disease and lung fibrosis. -- Lung function in specific respiratory and systemic diseases: a compendium. -- Pulmonary rehabilitation. -- Lung function in relation to surgery, anaesthesia and intensive care.

Sommario/riassunto

"The only text to cover lung function assessment from first principles including methodology, reference values and interpretation. Editors are amongst the world's leading authorities on lung function. Text completely re-written in a contemporary style: includes user-friendly equations and more diagrams. New material covering the latest advances in the treatment of lung function, including a stronger clinical and practical bias and more on new techniques and equipment"--