



## Enlighten: Publications

In this section

### The modelling process in respiratory medicine

[Murray-Smith, D.J.](#) and Carson, E.R. (1988) The modelling process in respiratory medicine. In: Cramp, D. G. and Carson, E. R. (eds.) *The Respiratory System. Ser Measurement in Medicine* (2). Croom Helm: London, UK, pp. 296-333. ISBN 978070993453

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#### Abstract

This book chapter is concerned with the modelling process in relation to respiratory physiology and medicine. Mathematical methods are outlined that allow the steady state and dynamic properties of the system to be examined within the context of an integrated experimental and theoretical framework. Such an approach is relevant whether the aim is to produce a model for use in research, for the development and application of model-based methods of pulmonary function testing or for predicting the response to drug therapy in relation to airway disease.

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View Respiratory Physiology Research Papers on Academia.edu for free. Recent papers in Respiratory Physiology. Papers. People. This book chapter provides an outline of the modelling process and discusses the purpose and objectives of modelling in the context of the respiratory system. Save to Library. by David J Murray-Smith. A model of care requires a holistic patient centered approach to the provision of services to patients. It involves best practice through the application of a set of service principles across the health service. It identifies essential elements to ensure high quality service. These elements are the health system, the community, delivery system design, decision support, clinical outcome measures and self-management support. Evidence based concepts are required with each element in combination with productive interactions between informed patients and providers. 1.1 Overview. Improving the health Respiratory Medicine and Science (Advances in Experimental Medicine and Biology). This is the book that provides expert advice on the clinical aspects of respiratory disorders. The entwining of pathophysiological processes raises the issue of the development of individualized and targeted therapeutic management strategies. Clinical practitioners should liaise with medical researchers on the design and execution of investigations to enhance translational power of basic science findings. This book proposes an introduction to the mathematical modeling of the respiratory system. A detailed introduction on the physiological aspects makes it accessible to a large audience without any prior knowledge on the lung. The Respiratory System Breathing, controlled by the respiratory system, is a continuous process of which a person is normally unaware. If breathing stops, however, a person becomes acutely aware of the fact. An individual can go days without food and water and hours without sleep, but only five or six minutes without air. Anything beyond that would be fatal. Source for information on The Respiratory System: UXL Complete Health Resource dictionary.