Record Nr. UNINA9910300295803321 Breath Sounds: From Basic Science to Clinical Practice / / edited by Titolo Kostas N. Priftis, Leontios J. Hadjileontiadis, Mark L. Everard Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2018 **ISBN** 3-319-71824-X Edizione [1st ed. 2018.] Descrizione fisica 1 online resource (314 pages) Disciplina 616.24075 Soggetti Respiratory organs - Diseases **Pediatrics** Critical care medicine Nursing **Diseases** Signal processing Pneumology Intensive Care Medicine Signal, Speech and Image Processing Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto 1 Introduction -- Part I: General Considerations -- 1 Historic review --2 Clinical usefulness of breath sounds -- 3 Nomenclature -- Part II: Sound recording, analysis, and perception. 4 Physics of sounds -- 5 Sound transmission through the human body -- 6 Breath sound recording -- 7 Current techniques for breath sound analysis -- Part III. Respiratory sounds. 8 Normal versus adventitious sounds -- 9 Crackles -- 10 Wheeze -- 11 Other lung sounds -- 12 Cough sound -- 13 Extrathoracic origin sounds -- Part IV. Where Are We Going? 14 Future prospectes for respiratory sound research -- 15 Towards a unified nomenclature -- 16 Epilogue. This book offers up-to-date information on the recording and analysis Sommario/riassunto of respiratory sounds that will assist in clinical routine. The opening sections deliver basic knowledge on aspects such as the physics of

sound and sound transmission in the body, a clear understanding of

which is key to good clinical practice. Current techniques of breath sound analysis are described, and the diagnostic impact of advances in the processing of lung sound signals is carefully explained. With the aid of audio files that are available online, detailed guidance is then provided on differentiation of normal and abnormal breath sounds and identification of the various sounds, including crackles, wheezes, other lung sounds, cough sounds, and sounds of extrathoracic origin. The book is of high educational value and represents an excellent learning tool at pre- and postgraduate levels. It will also appeal to researchers as it provides comprehensive summaries of knowledge in particular research fields. The editors bring high-level expertise to the subject, including membership of the European Respiratory Society Task Force on the standardization of categories and nomenclature for breath sounds.