Record Nr. UNINA9910782121303321 Autore Symonds E. M (Edwin Malcolm) **Titolo** Fetal electrocardiography / / E. Malcolm Symonds, Daljit Sahota, Allan Chang London, : Imperial College Press Pubbl/distr/stampa River Edge, NJ,: Distributed by World Scientific Pub. Co., c2001 **ISBN** 1-281-86615-6 9786611866150 1-84816-170-0 Descrizione fisica 1 online resource (172 pages) Collana Cardiopulmonary medicine from Imperial College Press Altri autori (Persone) ChangAllan SahotaDaljit 618.3/207547 Disciplina Soggetti Electrocardiography Fetal heart Fetal monitoring Fetus - Diseases - Diagnosis Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references (p. 141-149) and index. Contents; Introduction; 1. HISTORICAL DEVELOPMENT; Early Nota di contenuto Observations; Early Observations of the P & T Waves; The P Wave and the QRS Complex: Observations on the FECG Waveform in the 1970's with Appropriate Filtering; New Methods of Signal Processing in the 1980's. Clinical Trials and Observations in Recent Studies The QRS Complex; Vectorcardiography; Fetal Cardiac Arrhythmia's; Tachyarrhythmias; The Use of Abdominal Electrodes: The R-R' Interval and Fetal Heart Rate; 2. FETAL ADAPTATION; What is Fetal Distress? Fetal Physiological Response to Hypoxia Cellular Effects of Hypoxia: A Model for Fetal Distress; 3. RESEARCH MODELS AND PREDICTION; The Statistical Evaluation of Discrete Predictors; The Statistical Evaluation of Continuous Predictors The Validation of Predictive Tests by Observational Studies The

Validation of Predictive Tests by Clinical Trials; The Inclusion of Both Intervention and Morbidity in a Clinical Trial of Predictive Tests; The

Hawthorne Effect; Animal and Clinical Models of Study

4. THE ELECTRICAL SIGNAL ITS ACQUISITION AND MEASUREMENT The Biophysics - How is the Fetal Electrocardiogram Produced?; Acquisition of the Signal; Signal Detection and Enhancement; Morphology and Time Measurement of the Enhanced Waveform; 5. THE R-R' INTERVAL AND THE CARDIOTOCOGRAPHY; Physiology of Fetal Heart Rate Regulation

## Sommario/riassunto

This important book summarises a century of research and practical applications in fetal electrocardiography. Although fetal ECG is most commonly used for the calculation of fetal heart rates, other parameters have been employed in the prediction of fetal acidons. The book presents new approaches to the interpretation and analysis of the fetal ECG signal and discusses possible new approaches to the clinical exploitation of the electrical activity of the fetal heart. The authors have made numerous contributions to the study of fetal electrocardiography over the last three decades.