Record Nr. UNINA9910462670303321 Autore Shevell Michael Titolo Acquired brain injury in the fetus and newborn [[electronic resource] /] / Michael Shevell, Steven Miller Pubbl/distr/stampa Cambridge, : Mac Keith Press, : [distributor] John Wiley and Sons Ltd, : [distributor] John Wiley & Sons Australia Ltd, : [distributor] John Wiley & Sons Australia Ltd, : [distributor] John Wiley & Sons, 2012 1-907655-36-0 ISBN Descrizione fisica 1 online resource (340 p.) Collana 1st Altri autori (Persone) MillerSteven 618.3/2 Disciplina Soggetti Fetal brain - Diseases Newborn infants - Wounds and injuries Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di contenuto Contents: Authors' Appointments: Foreword: Preface: Acknowledgments: 1 Brain Injury in the Fetus: Introduction: Overview of normal fetal brain development; Normal function of the maternal placenta-fetal interface; Mechanisms of fetal brain injury; Fetal errors of metabolism; Conclusions; 2 Imaging the Fetal Brain; Introduction; Imaging the fetal brain: ultrasound versus magnetic resonance imaging; Imaging the fetal brain: the role of conventional magnetic resonance imaging; Normal fetal brain development on conventional magnetic resonance imaging Fetal brain injury in the fetus on conventional magnetic resonance imaging Advanced magnetic resonance imaging techniques in the exutero infant; Acquired fetal brain injury and advanced in vivo fetal magnetic resonance imaging techniques; Summary; 3 Mechanisms of Acute and Chronic Brain Injury in the Preterm Infant: Magnitude of the problem and spectrum of brain injury in preterm survivors; Patholologic features of brain injury in preterm infants; Pathophysiology of cerebral white matter injury; Cellular-molecular mechanisms of acute

Cellular mechanisms of chronic white matter injury: myelination failure and the susceptibility of oligodendrocytes and axons Is acquired

whitematter injury

chronic brain injury in preterm infants necessarily static and irreparable?; Clinical implications of potentially arrested white matter development; 4 Clinical assessment of the Preterm Infant including Near-infrared spectroscopy, amplitude-integrated Electroencephalography, and Electroencephalography; Near-infrared spectroscopy-monitored regional cerebral oxygen saturation; Electroencephalography and amplitude-integratedEEG; Conclusion 5 Imaging the Brain of the Preterm Infant Introduction; Magnetic resonance imaging of the brain in the normal preterm infant; Magnetic resonance imaging of brain injury in the preterm infant; Quantitative magnetic resonance studies of the developing brain in the preterm infant and association with neurodevelopmental outcome; 6 Protecting the Brain of the Preterm Infant; Introduction; Intraventricular hemorrhage; Posthemorrhagic ventricular dilation; White matter injury; Cerebellar injury: Antenatal neuroprotective agents: Developmental care and nutrition

Emerging candidates for future neuroprotective investigations Conclusions; 7 Seizures in the Preterm Infant; Introduction; Epidemiology; Clinical features; Differential diagnosis; Investigations including imaging; Treatment and management; Short- and long-term outcomes; Implications for future research; 8 Outcomes After Brain Injury in the Preterm Infant; Motor impairment; Cognitive impairment; Behavioral and psychiatric disorders; Conclusion; 9 Mechanisms of Brain Neurodegeneration in the Term Infant; Introduction; Types of cell death

Molecular and cellular mechanisms of cell death in the immature brain

## Sommario/riassunto

Expert synthesis of acquired brain injuries from the fetus to the term newborn to improve diagnosis and care is presented in this authoritative book, including recent significant advances. This book focuses on specific populations encountered regularly by clinicians, practicing neurologists, neonatologists and paediatricians.