Record Nr. UNINA9910438004303321 Pediatric hypertension / / Joseph T. Flynn, Julie R. Ingelfinger, Ronald J. **Titolo** Portman, editors Pubbl/distr/stampa New York, : Springer Science, 2013 **ISBN** 1-62703-490-0 Edizione [3rd ed. 2013.] Descrizione fisica 1 online resource (xvi, 600 pages): illustrations (some color) Collana Clinical hypertension and vascular diseases Altri autori (Persone) FlynnJoseph T IngelfingerJulie R PortmanRonald J Disciplina 618.92 618.92132 Soggetti Hypertension in children Pediatric cardiology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Foreword; Preface; Contents; Contributors; Part I: Regulation of Blood Pressure and Pathophysiological Mechanisms of Hypertension; 1: Neurohumoral and Autonomic Regulation of Blood Pressure: Introduction; Overview of Autonomic Function; Vasoactive Sites in the Brain; Tonic Autonomic Activity; Arterial Baroreflex; Resetting of the Arterial Baroreflex: Autonomic Function During Human Development: Cardiopulmonary Reflex: Peripheral Chemoreflex: Sympathetic Activity at Birth; Humoral Factors (See Also Chaps. 1 and 2); Renin-Angiotensin-Aldosterone System: Arginine Vasopressin: Glucocorticoids Nitric OxideReactive Oxygen Species; Conclusion; References; 2: Vasoactive Factors and Blood Pressure in Children: Introduction: Renin-Angiotensin-Aldosterone System; Angiotensinogen; Prorenin, Renin, and (Pro)renin Receptor; Angiotensin-Converting Enzyme; Angiotensin II Receptors; Angiotensin-Converting Enzyme 2; Developmental Aspects of the RAAS; Aldosterone; Glucocorticoids; Kallikrein-Kinin System; Arginine Vasopressin; Endothelium-Derived Vasoactive Factors;

Nitric Oxide; Asymmetrical Dimethylarginine; Endothelin; Natriuretic

**Peptides** 

Vasoactive Factors and Developmental Programming of HypertensionRenalase; Summary; References; 3: Cardiovascular Influences on Blood Pressure; Introduction; Cardiac Output; Preload; Venous Tone; Circulating Blood Volume; Cardiopulmonary Baroreceptors; Natriuretic Peptides; The Kidney and Blood Volume; Chronic Changes in Preload and Hypertension; Cardiac Contractility; Chronic Changes in Cardiac Contractility and Hypertension; Afterload; Chronic Increase in Afterload and Myocardial Hypertrophy; Determinants of Systolic, Diastolic, and Mean Blood Pressure; Systemic Vascular Resistance

Local Vascular Regulatory MechanismsAutonomic Nervous System Control of Vascular Resistance; Baroreceptors; Baroreceptors and Hypertension; Chemoreceptors and Osmoreceptors; Hypothalamus and Medulla Oblongata and Hypertension; Vasoactive Peptides; The Renin-Angiotensin-Aldosterone System; Endothelin and the Cardiovascular System; Vasopressin and Hypertension; Summary; References; 4: Ion and Fluid Dynamics in Hypertension; Sodium Channels; NHE Transporters; NKCC Transporters; The NCCT; ENaC; Na + /K + ATPase; Calcium Flux; Regulation of Ion Flux; Sodium Distribution and Blood Pressure

ConclusionsReferences; 5: Uric Acid in the Pathogenesis of Hypertension; The History of Uric Acid and Hypertension; Animal Models of Hyperuricemic Hypertension; Epidemiology; Uric Acid Metabolism; Pediatric Clinical Trials; Conclusions; References; 6: Monogenic and Polygenic Contributions to Hypertension; Introduction; Monogenic Forms of Human Hypertension; Glucocorticoid-Remediable Aldosteronism or Familial Hyperaldosteronism Type 1 [OMIM #103900]; Familial Hyperaldosteronism Type 2 OMIM #605635; Familial Hyperaldosteronism Type 3 [OMIM# 613677]: Apparent Mineralocorticoid Excess [AME] [OMIM # 218030]

## Sommario/riassunto

The field of pediatric hypertension has undergone important changes in the time since the second edition of Pediatric Hypertension published. Much new information on hypertension in the young has become available. Previous chapters have been fully revised and new chapters have been added to cover important topics of recent interest such as consensus recommendations, the prevalence of hypertension in the young due to the obesity epidemic, studies of antihypertensive agents, and ambulatory blood pressure monitoring. Pediatric Hypertension, Third Edition is a comprehensive volume featuring 38 chapters covering the breadth of the current knowledge. It is divided into four sections: Regulation of Blood Pressure in Children; Assessment of Blood Pressure in Children: Measurement, Normative Data, Epidemiology; and Hypertension in Children: Predictors, Risk Factors, and Special Populations: Evaluation and Management of Pediatric Hypertension. Filled with the most up-to-date information, Pediatric Hypertension, Third Edition is an invaluable resource for clinicians and researchers interested in childhood hypertension.