

Urinary Tract Stone Disease

[DOWNLOAD HERE](#)

1;Urinary Tract StoneDisease;3 1.1;Preface;5 1.2;Contents;7 1.3;Contributors;13 1.4;Part I Basic Sciences;21 1.4.1;1: Epidemiology;22 1.4.1.1;1.1 Introduction;22 1.4.1.2;1.2 Prevalence;22 1.4.1.3;1.3 Incidence;23 1.4.1.4;1.4 Recurrence Rates;23 1.4.1.5;1.5 Risk Factors;23 1.4.1.5.1;1.5.1 Non-dietary;23 1.4.1.5.1.1;1.5.1.1 Family History;23 1.4.1.5.1.2;1.5.1.2 Race/Ethnicity;23 1.4.1.5.1.3;1.5.1.3 Systemic Disorders;23 1.4.1.5.1.4;1.5.1.4 Environmental Factors;24 1.4.1.5.2;1.5.2 Dietary Factors;24 1.4.1.5.2.1;1.5.2.1 Calcium;24 1.4.1.5.2.2;1.5.2.2 Oxalate;24 1.4.1.5.2.3;1.5.2.3 Other Nutrients;25 1.4.1.5.2.4;1.5.2.4 Fluid Intake and Beverages;25 1.4.1.6;1.6 Urinary Factors;25 1.4.1.7;1.7 Conclusions;26 1.4.1.8;References;26 1.4.2;2: Genetics and Molecular Biology of Renal Stones;28 1.4.2.1;2.1 Introduction;28 1.4.2.2;2.2 Genetic Linkage Studies;28 1.4.2.3;2.3 Genetic Association Studies;29 1.4.2.4;2.4 Animal Models of Genetic Disease;31 1.4.2.5;2.5 Future Areas of Study;32 1.4.2.6;2.6 Conclusions;32 1.4.2.7;References;33 1.4.3;3: Physicochemical Aspects of Uro-crystallization and Stone Formation;35 1.4.3.1;3.1 Introduction;36 1.4.3.2;3.2 Supersaturation;36 1.4.3.2.1;3.2.1 Different States of Saturation;36 1.4.3.2.2;3.2.2 Supersaturation Equations;37 1.4.3.2.3;3.2.3 Estimating Urinary Supersaturation;38 1.4.3.2.4;3.2.4 Solubility;38 1.4.3.3;3.3 Classical Crystallization Processes;39 1.4.3.3.1;3.3.1 Nucleation;39 1.4.3.3.1.1;3.3.1.1 Homogeneous Nucleation;40 1.4.3.3.1.2;3.3.1.2 Heterogeneous Nucleation;41 1.4.3.3.1.3;3.3.1.3 The Metastable Limit and Induction Time;42 1.4.3.3.2;3.3.2 Crystal Growth;43 1.4.3.3.2.1;3.3.2.1 Desaturation Profile;43 1.4.3.3.2.2;3.3.2.2 Stoichiometry;43 1.4.3.3.3;3.3.3 Aggregation;44 1.4.3.4;3.4 Nonclassical Crystallization;45 1.4.3.5;3.5 Other Crystallization Processes;46 1.4.3.5.1;3.5.1 Promotion/Inhibition;46 1.4.3.5.2;3.5.2 Morphology/Aging;46 1.4.3.6;3.6 Conclusions;46 1.4.3.7;References;47 1.4.4;4: The Possible Roles of Inhibitors, Promoters, and Macromolecules in the Formation of Calcium Kidney Stones;49 1.4.4.1;4.1 Introduction;49 1.4.4.2;4.2 Calcium Oxalate Crystallization in the Urinary Tract;50 1.4.4.2.1;4.2.1 Free-Particle Stone Formation;50 1.4.4.2.2;4.2.2 Fixed-Particle Stone Formation;51 1.4.4.2.3;4.2.3 The Inhibitor Theory of Stone Formation;51 1.4.4.3;4.3 Measuring Inhibition and Promotion of Crystallization and Cell Adhesion;52 1.4.4.3.1;4.3.1 The Complexity of Crystallization;52 1.4.4.3.1.1;4.3.1.1 Uncertainty

About Working Material: Identity, Purity, and Source;52 1.4.4.3.1.2;4.3.1.2 A Multiplicity of Methodologies;52 1.4.4.3.1.3;4.3.1.3 Necessary but Imperfect: Experimental Cell Models;53 1.4.4.3.1.4;4.3.1.4 What You See Is What You Get: Not Necessarily What Actually Happens in Real Life;53 1.4.4.4;4.4 Inhibitors and Promoters of CaOx Crystallization;53 1.4.4.4.1;4.4.1 Promoters of CaOx Crystal Nucleation;53 1.4.4.4.2;4.4.2 Inhibitors of CaOx Crystallization;54 1.4.4.4.2.1;4.4.2.1 The Effect of Urine on CaOx Crystallization;54 1.4.4.5;4.5 Inhibitors and Promoters of CaOx Crystal Cell Adhesion;54 1.4.4.5.1;4.5.1 Urine and Generic Urinary Macromolecules;54 1.4.4.5.2;4.5.2 Macromolecular Inhibitors of Cell Adhesion;55 1.4.4.5.3;4.5.3 Macromolecular Promoters of Crystal Cell Adhesion;55 1.4.4.5.4;4.5.4 A Fortunate Adversity: Phagocytosis, Intracrystalline Proteins, and Crystal Dissolution;55 1.4.4.5.4.1;4.5.4.1 Intracrystalline Proteins;55 1.4.4.5.5;Summary;56 1.4.4.6;4.6 Low Molecular Weight Inhibitors;56 1.4.4.6.1;4.6.1 Pyrophosphate;56 1.4.4.6.1.1;4.6.1.1 Effect of Pyrophosphate on Crystallization;56 1.4.4.6.1.2;4.6.1.2 Urinary Excretion of Pyrophosphate;57 1.4.4.6.1.3;4.6.1.3 Summary;57 1.4.4.6.2;4.6.2 Magnesium;57 1.4.4.6.2.1;4.6.2.1 Effect of Magnesium on Crystallization;57 1.4.4.6.2.2;4.6.2.2 Urinary Excretion of Magnesium;57 1.4.4.6.2.3;4.6.2.3 Effect of Magnesium in Experimental Models;57 1.4. EAN/ISBN : 9781848003620 Publisher(s): Springer, Berlin, Springer, London Discussed keywords: Harnstein Format: ePub/PDF Author(s): Rao, Nagaraja P. - Kavanagh, John P. - Preminger, Glenn M.

[DOWNLOAD HERE](#)

Similar manuals:

[Urinary Tract Stone Disease](#)