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Cardiovascular Disability Regulation of Tissue Oxygenation, Second Edition Cardiovascular Pathology Disease Control Priorities, Third Edition (Volume 5) Pathophysiology of Cardiovascular Disease A Nationwide Framework for Surveillance of Cardiovascular and Chronic Lung Diseases How Tobacco Smoke Causes Disease Vital Statistics of the United States Cardiovascular Diseases Biomaterials and Devices for the Circulatory System Caffeine in Food and Dietary Supplements: Examining Safety Braunwald's Heart Disease E-Book Vital and Health Statistics Circulatory System Dynamics Vasculopathies Promoting Cardiovascular Health in the Developing World Heart and Toxins Cellular and Molecular Pathobiology of Cardiovascular Disease Cardiac Diseases Oxford Textbook of Medical Mycology Blood and Circulatory Disorders Sourcebook Diseases of the Heart and Circulation Industrial Characteristics of Persons Reporting Morbidity During the Health Interview Surveys Conducted in 1969-1974 Morbidity and Mortality Data Analysis and Applications 4 Health Statistics from the Americas Your Circulatory System Public Health Service Publication Summary, National Hospital Discharge Survey Cardiovascular Complications of Respiratory Diseases The Circulatory System Hospital Use in Poland and the United States Biomaterials, Artificial Organs and Tissue Engineering Medical Emergencies in Dentistry High and Rising Mortality Rates Among Working-Age Adults Quick-Read Cardiology Oxford Textbook of Cardiothoracic Anaesthesia Cardiovascular Hemodynamics Arkansas Vital Statistics Regulation of Coronary Blood Flow

Vasculopathies Aug 20 2021 This volume presents one of the clinical foundations of vasculopathies: the biological markers and risk factors associated with cardiovascular disease. A detailed biological and clinical framework is provided as a prerequisite for adequate modeling. Chapter 1 presents cardiovascular risk factors and markers, where the search for new criteria is aimed at improving early detection of chronic diseases. The subsequent chapters focus on hypertension, which involves the kidney among other organs as well as many agents, hyperglycemia and diabetes, hyperlipidemias and obesity, and behavior. The last of these risk factors includes altered circadian rhythm, tobacco and alcohol consumption, physical inactivity, and diet. The volumes in this series present all of the data needed at various length scales for a multidisciplinary approach to modeling and simulation of flows in the cardiovascular and ventilatory systems, especially multiscale modeling and coupled simulations. The cardiovascular and respiratory systems are tightly coupled, as their primary function is to supply oxygen to and remove carbon dioxide from the body's cells. Because physiological conduits have deformable and reactive walls, macroscopic flow behavior and prediction must be coupled to nano- and microscopic events in a corrector scheme of regulated mechanisms. Therefore, investigation of flows of blood and air in anatomical conduits requires an understanding of the biology, chemistry, and physics of these systems together with the mathematical tools to describe their functioning in quantitative terms.

Cardiovascular Complications of Respiratory Diseases May 05 2020 This Monograph provides an update on cardiovascular disease complications and treatment implications for respiratory diseases, based on current scientific evidence and considered from an epidemiological, pathophysiological and clinical point of view. This book also discusses the future challenges when studying the complex relationship between these two groups of disorders.

Regulation of Tissue Oxygenation, Second Edition Oct 02 2022 This presentation describes various aspects of the regulation of tissue oxygenation, including the roles of the circulatory system, respiratory system, and blood, the carrier of oxygen within these components of the cardiorespiratory system. The respiratory system takes oxygen from the atmosphere and transports it by diffusion from the air in the alveoli to the blood flowing through the pulmonary capillaries. The cardiovascular system then moves the oxygenated blood from the heart to the microcirculation of the various organs by convection, where oxygen is released from hemoglobin in the red blood cells and moves to the parenchymal cells of each tissue by diffusion. Oxygen that has diffused into cells is then utilized in the mitochondria to produce adenosine triphosphate (ATP), the energy currency of all cells. The mitochondria are able to produce ATP until the oxygen tension or PO₂ on the cell surface falls to a critical level of about 4–5 mm Hg. Thus, in order to meet the energetic needs of cells, it is important to maintain a continuous supply of oxygen to the mitochondria at or above the critical PO₂. In order to accomplish this desired outcome, the cardiorespiratory system, including the blood, must be capable of regulation to ensure survival of all tissues under a wide range of circumstances. The purpose of this presentation is to provide basic information about the operation and regulation of the cardiovascular and respiratory systems, as well as the properties of the blood and parenchymal cells, so that a fundamental understanding of the regulation of tissue oxygenation is achieved.

Summary, National Hospital Discharge Survey Jun 05 2020

Public Health Service Publication Jul 07 2020

Data Analysis and Applications 4 Oct 10 2020 Data analysis as an area of importance has grown exponentially, especially during the past couple of decades. This can be attributed to a rapidly growing computer industry and the wide applicability of computational techniques, in conjunction with new advances of analytic tools. This being the case, the need for literature that addresses this is self-evident. New publications are appearing, covering the need for information from all fields of science and engineering, thanks to the universal relevance of data analysis and statistics packages. This book is a collective work by a number of leading scientists, analysts, engineers, mathematicians and statisticians who have been working at the forefront of data analysis. The chapters included in this volume represent a cross-section of current concerns and research interests in these scientific areas. The material is divided into three parts: Financial Data Analysis and Methods, Statistics and Stochastic Data Analysis and Methods, and Demographic Methods and Data Analysis- providing the reader with both theoretical and applied information on data analysis methods, models and techniques and appropriate applications.

Biomaterials and Devices for the Circulatory System Jan 25 2022 Cardiovascular disease is one of the leading causes of death in the world today. Thanks to major advances in circulatory biomaterials and medical devices over the past few decades, many complications of this prevalent disease can be managed with great success for prolonged periods. Biomaterials and devices for the circulatory system reviews the latest developments in this important field and how they can be used to improve the success and safety in this industry. Part one discusses physiological responses to biomaterials with chapters on tissue response, blood interface and biocompatibility. Part two then reviews clinical applications including developments in valve technology, percutaneous valve replacement, bypass technologies and cardiovascular stents. Part three covers future developments in the field with topics such as nanomedicine, cardiac restoration therapy, biosensor technology in the treatment of cardiovascular disease and vascular tissue engineering. With its distinguished editors and international team of contributors Biomaterials and devices for the circulatory system is a vital reference for those concerned with bioengineering, medical devices and clinicians within this critical field. Reviews the latest developments in this important field and how they can be used to improve success and safety in the industry Both current clinical advances as well as future innovation are assessed taking a progressive view of the role of biomaterials in medical applications An examination of the physiological responses to biomaterials features tissue responses to implanted materials and strategies to improve the biocompatibility of medical devices

How Tobacco Smoke Causes Disease Apr 27 2022 This report considers the biological and behavioral mechanisms that may underlie the pathogenicity of tobacco smoke. Many Surgeon General's reports have considered research findings on mechanisms in assessing the biological plausibility of associations observed in epidemiologic studies. Mechanisms of disease are important because they may provide plausibility, which is one of the guideline criteria for assessing evidence on causation. This report specifically reviews the evidence on the potential mechanisms by which smoking causes diseases and considers whether a mechanism is likely to be operative in the production of human disease by tobacco smoke. This evidence is relevant to understanding how smoking causes disease, to identifying those who may be particularly susceptible, and to assessing the potential risks of tobacco products.

Oxford Textbook of Cardiothoracic Anaesthesia Sep 28 2019 Part of the Oxford Textbooks in Anaesthesia series, this title covers the anatomy and physiology, pharmacology, post-operative complications, critical care, and all clinical aspects of cardiac and thoracic anaesthesia. Practical aspects, such as team working, and designing and equipping cardiothoracic theatre and critical care, are also included. The expert and international author team use their experience to ensure this title reflects current world-wide practice across the globe.

Cardiac Diseases Apr 15 2021 This is the latest book in a series of cardiovascular-related texts from IntechOpen Publishing. The present volume considers general aspects of cardiac disease and is divided into three distinct sections covering cardiac risk, cardiorenal pathology, and novel interventional surgical techniques. The chapters offer insight into the current state of the art with respect to the risks of developing cardiovascular diseases, maintenance of patent vascular access in patients with the cardiorenal syndrome, and a plethora of novel interventional technologies all aimed at salvaging damaged tissue and improving prognosis and reducing mortality. This volume of 18 chapters is intended for general medical and biomedical students at both undergraduate and postgraduate level. It also offers insightful updates on recent advances in the understanding of the pathophysiology of cardiac diseases and the new techniques added to the medical armamentarium to improve the outcomes and prevent mortality and would be of interest to those working in academia and healthcare science.

The Circulatory System Apr 03 2020 Discusses what the circulatory system is, how it works, and how it responds to exercise and hemorrhage.

Quick-Read Cardiology Oct 29 2019 The Cardiovascular System, in all its complexity, is definitely an incredible part of our body that contains an organised system that while might seem intricate and complicated, is awfully simple for such an important task. In this book, I will explain not only the remarkable system that is the cardiovascular, or circulatory, system, but also the conditions that are associated with it and the procedures and medicine used to treat them.

Circulatory System Dynamics Sep 20 2021 Circulatory System Dynamics reviews cardiovascular dynamics from the analytical viewpoint and indicates ways in which the accumulated knowledge can be expanded and applied to further enhance understanding of the normal mammalian circulation, to ascertain the nature of difficulties associated with disease, and to test the effect of treatment. Comprised of 10 chapters, this volume begins with an overview of the circulatory system, including its anatomy and the trigger for myocardial (heart muscle) contraction. The discussion then turns to measurement of blood pressure using invasive and non-invasive techniques; blood flow measurement, with emphasis on cardiac output and measurement in the microcirculation; the system and pulmonary arterial trees; and pulsatile pressure and flow in pulmonary veins. Subsequent chapters explore microcirculation and the anatomy of the microvasculature; the heart and coronary circulation, paying particular attention to the Frank-Starling mechanism and indices of myocardial "contractility"; and control of blood pressure, peripheral resistance, and cerebral flow. The last two chapters deal with circulatory assistance and the closed cardiovascular system. This book will be of interest to students, practitioners, and researchers in fields ranging from physiology and biology to biochemistry and biophysics.

Hospital Use in Poland and the United States Mar 03 2020

Promoting Cardiovascular Health in the Developing World Jul 19 2021 Cardiovascular disease (CVD), once thought to be confined primarily to industrialized nations, has emerged as a major health threat in developing countries. Cardiovascular disease now accounts for nearly 30 percent of deaths in low and middle income countries each year, and is accompanied by significant economic repercussions. Yet most governments, global health institutions, and development agencies have largely overlooked CVD as they have invested in health in developing countries. Recognizing the gap between the compelling evidence of the global CVD burden and the investment needed to prevent and control CVD, the National Heart, Lung, and Blood Institute (NHLBI) turned to the IOM for advice on how to catalyze change. In this report, the IOM recommends that the NHLBI, development agencies, nongovernmental organizations, and governments work toward two essential goals: creating environments that promote heart healthy lifestyle choices and help reduce the risk of chronic diseases, and building public health infrastructure and health systems with the capacity to implement programs that will effectively detect and reduce risk and manage CVD. To meet these goals, the IOM recommends several steps, including improving cooperation and collaboration; implementing effective and feasible strategies; and informing efforts through research and health surveillance. Without better efforts to promote cardiovascular health, global health as a whole will be undermined.

Disease Control Priorities, Third Edition (Volume 5) Jul 31 2022 Cardiovascular, respiratory, and related conditions cause more than 40 percent of all deaths globally, and their substantial burden is rising, particularly in low- and middle-income countries (LMICs). Their burden extends well beyond health effects to include significant economic and societal consequences. Most of these conditions are related, share risk factors, and have common control measures at the clinical, population, and policy levels. Lives can be extended and improved when these diseases are prevented, detected, and managed. This volume summarizes current knowledge and presents evidence-based interventions that are effective, cost-effective, and scalable in LMICs.

Cellular and Molecular Pathobiology of Cardiovascular Disease May 17 2021 Cellular and Molecular Pathobiology of Cardiovascular Disease focuses on the pathophysiology of common cardiovascular disease in the context of its underlying mechanisms and molecular biology. This book has been developed from the editors' experiences teaching an advanced cardiovascular pathology course for PhD trainees in the biomedical sciences, and trainees in cardiology, pathology, public health, and veterinary medicine. No other single text-reference combines clinical cardiology and cardiovascular pathology with enough molecular content for graduate students in both biomedical research and clinical departments. The text is complemented and supported by a rich variety of photomicrographs, diagrams of molecular relationships, and tables. It is uniquely useful to a wide audience of graduate students and post-doctoral fellows in areas from pathology to physiology, genetics, pharmacology, and more, as well as medical residents in pathology, laboratory medicine, internal medicine, cardiovascular surgery, and cardiology. Explains how to identify cardiovascular pathologies and compare with normal physiology to aid research Gives concise explanations of key issues and background reading suggestions Covers molecular bases of diseases for better understanding of molecular events that precede or accompany the development of pathology

Your Circulatory System Aug 08 2020 The circulatory system is made up of the heart, the blood, and strong tubes called blood vessels. But what does the circulatory system do? And how do its parts work together to keep your body healthy? Explore the circulatory system in this engaging and informative book.

Health Statistics from the Americas Sep 08 2020

Braunwald's Heart Disease E-Book Nov 22 2021 Ideal for cardiologists who need to keep abreast of rapidly changing scientific foundations, clinical research results, and evidence-based medicine, Braunwald's Heart Disease is your indispensable source for definitive, state-of-the-art answers on every aspect of contemporary cardiology, helping you apply the most recent knowledge in personalized medicine, imaging techniques, pharmacology, interventional cardiology, electrophysiology, and much more! Practice with confidence and overcome your toughest challenges with advice from the top minds in cardiology today, who

synthesize the entire state of current knowledge and summarize all of the most recent ACC/AHA practice guidelines. Locate the answers you need fast thanks to a user-friendly, full-color design with more than 1,200 color illustrations. Learn from leading international experts, including 53 new authors. Explore brand-new chapters, such as Principles of Cardiovascular Genetics and Biomarkers, Proteomics, Metabolomics, and Personalized Medicine. Access new and updated guidelines covering Diseases of the Aorta, Peripheral Artery Diseases, Diabetes and the Cardiovascular System, Heart Failure, and Valvular Heart Disease. Stay abreast of the latest diagnostic and imaging techniques and modalities, such as three-dimensional echocardiography, speckle tracking, tissue Doppler, computed tomography, and cardiac magnetic resonance imaging. Consult this title on your favorite e-reader, conduct rapid searches, and adjust font sizes for optimal readability.

Cardiovascular Disability Nov 03 2022 The Social Security Administration (SSA) uses a screening tool called the Listing of Impairments to identify claimants who are so severely impaired that they cannot work at all and thus immediately qualify for benefits. In this report, the IOM makes several recommendations for improving SSA's capacity to determine disability benefits more quickly and efficiently using the Listings.

Diseases of the Heart and Circulation Jan 13 2021

Cardiovascular Diseases Feb 23 2022 Cardiovascular Diseases: Genetic Susceptibility, Environmental Factors and Their Interaction covers the special heritability characteristics and identifying genetic and environmental contributions to cardiovascular health. This important reference provides an overview of the genetic basis of cardiovascular disease and its risk factors. Included are important topics, ranging from lifestyle choices, risk factors, and exposure, to pollutants and chemicals. Also covered are the influences of Mendelian traits and familial aggregation and the interactions and interrelationships between genetics and environmental factors which, when compared, provide a sound understanding of the interplay between inherited and acquired risk factors. The book provides a much needed reference for this rapidly growing field of study. By combining the latest research within the structured chapters of this reference, a better understanding of genetic and environmental contribution to cardiovascular disease is found, helping to substantiate further investigations in the field and design prevention and treatment strategies. Provides an overview of the genetic basis of cardiovascular disease and its risk factors Reviews several large population-based studies which indicate that exposure to several environmental factors may increase CVD morbidity and mortality, exploring the plausibility of this association by data from animal studies Reflects on future studies to help understanding the role of genes and environmental factors in the development and progression of cardiovascular disease

Vital Statistics of the United States Mar 27 2022

Cardiovascular Hemodynamics Aug 27 2019 A basic understanding of cardiovascular physiology is essential for optimal patient care. This practical book provides a concise tutorial of all the essential aspects of cardiovascular hemodynamics and the techniques used to assess cardiovascular performance. A high-yield reference, this book is replete with figures, tracings, tables, and clinical pearls that reinforce the basic tenets of hemodynamics. From identifying key findings of the patient history and physical exam to correlating hemodynamic tracings with acute clinical presentations, this book arms the reader with the tools necessary to handle any hemodynamic-related situation.

Heart and Toxins Jun 17 2021 The Heart and Toxins brings together global experts to provide the latest information and clinical trials that make the connection between genetic susceptibility, gene expression, and environmental factors in cardiovascular diseases. This unique reference, edited by renowned cardiologist Meenakshi Sundaram Ramachandran, solves the problem of managing multiple clinical cases of cardiovascular toxicity. It allows connections to be made between research, diagnosis, and treatment to avoid higher morbidity and mortality rates as a result of cardiovascular toxicity. Structured to bring together exploration into the epidemiology, molecular mechanism, pathogenesis, environmental factors and management in cardiovascular toxins" Included various topics on cardiovascular toxins such as plant, chemical, animal, nanomaterial and marine biology induced cardiac damage – which are new ideas discussed in detail Comprehensive chapters on the cardiovascular toxicity from drugs, radiotherapy and radiological imaging Enables you to manage multiple clinical cases of cardiovascular toxicity Outlined conclusions at the end of each chapter providing "key learning points" to help you organize the chapter's details without losing insight

Industrial Characteristics of Persons Reporting Morbidity During the Health Interview Surveys Conducted in 1969-1974 Dec 12 2020

Biomaterials, Artificial Organs and Tissue Engineering Jan 31 2020 Maintaining quality of life in an ageing population is one of the great challenges of the 21st Century. This book summarises how this challenge is being met by multi-disciplinary developments of specialty biomaterials, devices, artificial organs and in-vitro growth of human cells as tissue engineered constructs. Biomaterials, Artificial Organs and Tissue Engineering is intended for use as a textbook in a one semester course for upper level BS, MS and Meng students. The 25 chapters are organized in five parts: Part one provides an introduction to living and man-made materials for the non-specialist; Part two is an overview of clinical applications of various biomaterials and devices; Part three summarises the bioengineering principles, materials and designs used in artificial organs; Part four presents the concepts, cell techniques, scaffold materials and applications of tissue engineering; Part five provides an overview of the complex socio-economic factors involved in technology based healthcare, including regulatory controls, technology transfer processes and ethical issues. Comprehensive introduction to living and man-made materials Looks at clinical applications of various biomaterials and devices Bioengineering principles, materials and designs used in artificial organs are summarised

Oxford Textbook of Medical Mycology Mar 15 2021 The Oxford Textbook of Medical Mycology is a comprehensive reference text which brings together the science and medicine of human fungal disease. Written by a leading group of international authors to bring a global expertise, it is divided into sections that deal with the principles of mycology, the organisms, a systems based approach to management, fungal disease in specific patient groups, diagnosis, and treatment. The detailed clinical chapters take account of recent international guidelines on the management of fungal disease. With chapters covering recent developments in taxonomy, fungal genetics and other 'omics', epidemiology, pathogenesis, and immunology, this textbook is well suited to aid both scientists and clinicians. The extensive illustrations, tables, and in-depth coverage of topics, including discussion of the non-infective aspects of allergic and toxin mediated fungal disease, are designed to aid the understanding of mechanisms and pathology, and extend the usual approach to fungal disease. This textbook is essential reading for microbiologists, research scientists, infectious diseases clinicians, respiratory physicians, and those managing immunocompromised patients. Part of the Oxford Textbook in Infectious Disease and Microbiology series, it is also a useful companion text for students and trainees looking to supplement mycology courses and microbiology training.

Regulation of Coronary Blood Flow Jun 25 2019 Research centering on blood flow in the heart continues to hold an important position, especially since a better understanding of the subject may help reduce the incidence of coronary arterial disease and heart attacks. This book summarizes recent advances in the field; it is the product of fruitful cooperation among international scientists who met in Japan in May, 1990 to discuss the regulation of coronary blood flow.

Morbidity and Mortality Nov 10 2020

Blood and Circulatory Disorders Sourcebook Feb 11 2021 Basic consumer health information about the blood and circulatory system and related disorders.

Cardiovascular Pathology Sep 01 2022 Cardiovascular Pathology, Fourth Edition, provides users with a comprehensive overview that encompasses its examination, cardiac structure, both normal and physiologically altered, and a multitude of abnormalities. This updated edition offers current views on interventions, both medical and surgical, and the pathology related to them. Congenital heart disease and its pathobiology are covered in some depth, as are vasculitis and neoplasias. Each section has been revised to reflect new discoveries in clinical and molecular pathology, with new chapters updated and written with a practical approach, especially with regards to the discussion of pathophysiology. New chapters reflect recent technological advances with cardiac devices, transplants, genetics, and immunology. Each chapter is highly illustrated and covers contemporary aspects of the disease processes, including a section on the role of molecular diagnostics and cytogenetics as specifically related to cardiovascular pathology. Customers buy the Print + Electronic product together! Serves as a contemporary, all-inclusive guide to cardiovascular pathology for clinicians and researchers, as well as clinical residents and fellows of pathology, cardiology, cardiac surgery, and internal medicine Offers new organization of each chapter to enable uniformity for learning and reference: Definition, Epidemiology, Clinical Presentation, Pathogenesis/Genetics, Light and Electron Microscopy/Immunohistochemistry, Differential Diagnosis, Treatment and Potential Complications Features six new chapters and expanded coverage of the normal heart and blood vessels, cardiovascular devices, congenital heart disease, tropical and infectious cardiac disease, and forensic pathology of the cardiovascular system Contains 400+ full color illustrations and an online image collection facilitate research, study, and lecture slide creation

A Nationwide Framework for Surveillance of Cardiovascular and Chronic Lung Diseases May 29 2022 Chronic diseases are common and costly, yet they are also among the most preventable health problems. Comprehensive and accurate disease surveillance systems are needed to implement successful efforts which will reduce the burden of chronic diseases on the U.S. population. A number of sources of surveillance data—including population surveys, cohort studies, disease registries, administrative health data, and vital statistics—contribute critical information about chronic disease. But no central surveillance system provides the information needed to analyze how chronic disease impacts the U.S. population, to identify public health priorities, or to track the progress of preventive efforts. A Nationwide Framework for Surveillance of Cardiovascular and Chronic Lung Diseases outlines a conceptual framework for building a national chronic disease surveillance system focused primarily on cardiovascular and chronic lung diseases. This system should be capable of providing data on disparities in incidence and prevalence of the diseases by race, ethnicity, socioeconomic status, and geographic region, along with data on disease risk factors, clinical care delivery, and functional health outcomes. This coordinated surveillance system is needed to integrate and expand existing information across the multiple levels of decision making in order to generate actionable, timely knowledge for a range of stakeholders at the local, state or regional, and national levels. The recommendations presented in A Nationwide Framework for Surveillance of Cardiovascular and Chronic Lung Diseases focus on data collection, resource allocation, monitoring activities, and implementation. The report also recommends that systems evolve along with new knowledge about emerging risk factors, advancing technologies, and new understanding of the basis for disease. This report will inform decision-making among federal health agencies, especially the Department of Health and Human Services; public health and clinical practitioners; non-governmental organizations; and policy makers, among others.

Pathophysiology of Cardiovascular Disease Jun 29 2022 Pathophysiology of Cardiovascular Disease has been divided into four sections that focus on heart dysfunction and its associated characteristics (hypertrophy, cardiomyopathy and failure); vascular dysfunction and disease; ischemic heart disease; and novel therapeutic interventions. This volume is a compendium of different approaches to understanding cardiovascular disease and identifying the proteins, pathways and processes that impact it.

Arkansas Vital Statistics Jul 27 2019

Vital and Health Statistics Oct 22 2021

Caffeine in Food and Dietary Supplements: Examining Safety Dec 24 2021 "Caffeine in Food and Dietary Supplements" is the summary of a workshop convened by the Institute of Medicine in August 2013 to review the available science on safe levels of caffeine consumption in foods, beverages, and dietary supplements and to identify data gaps. Scientists with expertise in food safety, nutrition, pharmacology, psychology, toxicology, and related disciplines; medical professionals with pediatric and adult patient experience in cardiology, neurology, and psychiatry; public health professionals; food industry representatives; regulatory experts; and consumer advocates discussed the safety of caffeine in food and dietary supplements, including, but not limited to, caffeinated beverage products, and identified data gaps. Caffeine, a central nervous stimulant, is arguably the most frequently ingested pharmacologically active substance in the world. Occurring naturally in more than 60 plants, including coffee beans, tea leaves, cola nuts and cocoa pods, caffeine has been part of innumerable cultures for centuries. But the caffeine-in-food landscape is changing. There are an array of new caffeine-containing energy products, from waffles to sunflower seeds, jelly beans to syrup, even bottled water, entering the marketplace. Years of scientific research have shown that moderate consumption by healthy adults of products containing naturally-occurring caffeine is not associated with adverse health effects. The changing caffeine landscape raises concerns about safety and whether any of these new products might be targeting populations not normally associated with caffeine consumption, namely children and adolescents, and whether caffeine poses a greater health risk to those populations than it does for healthy adults. This report delineates vulnerable populations who may be at risk from caffeine exposure; describes caffeine exposure and risk of cardiovascular and other health effects on vulnerable populations, including additive effects with other ingredients and effects related to pre-existing conditions; explores safe caffeine exposure levels for general and vulnerable populations; and identifies data gaps on caffeine stimulant effects.

Medical Emergencies in Dentistry Jan 01 2020 Although rare, when medical emergencies occur in the dental setting they require a sound understanding of what action to take, to ensure that the emergency is dealt with quickly. Dental students and dental practitioners must be able to carry out first aid, including the principles of cardiopulmonary resuscitation and its practice. They should also be able to recognise and take appropriate action in situations such as anaphylactic reaction, hypoglycaemia, upper respiratory obstruction, cardiac arrest, fits, and haemorrhage. This essential, practical guide on how to diagnose and manage medical emergencies in dentistry covers the theory behind emergency management, in conjunction with practical tips and training so that all members of the dental team are able to deal with uncommon but potentially tragic events.

High and Rising Mortality Rates Among Working-Age Adults Nov 30 2019 The past century has witnessed remarkable advances in life expectancy in the United States and throughout the world. In 2010, however, progress in life expectancy in the United States began to stall, despite continuing to increase in other high-income countries. Alarming, U.S. life expectancy fell between 2014 and 2015 and continued to decline through 2017, the longest sustained decline in life expectancy in a century (since the influenza pandemic of 1918-1919). The recent decline in U.S. life expectancy appears to have been the product of two trends: (1) an increase in mortality among middle-aged and younger adults, defined as those aged 25-64 years (i.e., "working age"), which began in the 1990s for several specific causes of death (e.g., drug- and alcohol-related causes and suicide); and (2) a slowing of declines in working-age mortality due to other causes of death (mainly cardiovascular diseases) after 2010. High and Rising Mortality Rates among Working Age Adults highlights the crisis of rising premature mortality that threatens the future of the nation's families, communities, and national wellbeing. This report identifies the key drivers of increasing death rates and disparities in working-age mortality over the period 1990 to 2017; elucidates modifiable risk factors that could alleviate poor health in the working-age population, as well as widening health inequalities; identifies key knowledge gaps and make recommendations for future research and data collection to fill those gaps; and explores potential policy implications. After a comprehensive analysis of the trends in working-age mortality by age, sex, race/ethnicity, and geography using the most up-to-date data, this report then looks upstream to the macrostructural factors (e.g., public policies, macroeconomic trends, social and economic inequality, technology) and social determinants (e.g., socioeconomic status, environment, social networks) that may affect the health of working-age Americans in multiple ways and through multiple pathways.