

Pathophysiology Series

Medcom's 11-program Pathophysiology Series provides a detailed introduction to pathophysiology for students starting on the path to becoming healthcare professionals. The pathophysiology for three key body systems is reviewed: the immune system, the cardiovascular system, and the neurological system. Each program provides a brief review of the anatomy and physiology of the body system, followed by descriptions of the pathological processes that can affect that system, including risk factors and symptoms.

Pathophysiology: The Immune System PATH100A

An understanding of basic pathophysiology—the study of the processes and mechanisms of disease in the body and the accompanying functional changes that result—is a foundational skill for healthcare professionals in any setting. But there is one body system that affects all the others: the immune system. The immune system works to keep all the other body systems healthy and functioning. This program will provide an overview of the components of the immune system and their roles.

DVD runtime: 13:10 min. © 2016

Pathophysiology: Immune System Responses PATH100B

The immune system works to keep all the other body systems healthy and functioning. The first program in this two-part series describes the components of the immune system, and should be reviewed before viewing this program. This program describes how these components work together to respond to harmful pathogens. In addition, it provides an overview of the pathology of one of the greatest challenges to the immune system: cancer.

DVD runtime: 19:52 min. © 2016

Pathophysiology: Cardiac Pathology Part 1 PATH101A

The human heart is amazing. It beats over 100,000 per day and pumps 15 gallons of blood throughout the body every minute. Yet it is not infallible, and heart disease is still the leading cause of death around the globe. This program will focus on a few of the most common disorders of the heart: coronary heart disease, acute coronary syndrome, angina pectoris, myocardial infarction, and heart failure.

DVD runtime: 25:00 min. © 2016

Pathophysiology: Cardiac Pathology Part 2 PATH101B

This final program on cardiac pathology describes dysrhythmias of the cardiac conduction system, which is responsible for initiating and conducting electrical impulses to produce rhythmic heartbeats. Valvular heart disease is also described.

DVD runtime: 15:00 min. © 2016

Pathophysiology: The Vascular System PATH102

The adult human has about six quarts of blood that move through the vasculature in his or her body three times per minute, a circuit that is equal to 12,000 miles. This program describes disorders that can afflict the arteries, veins, and capillaries of the vascular system.

DVD runtime: 26 min. © 2016

Pathophysiology: Neurological System: Acute Brain Injuries PATH103A

So vital is the central nervous system to the wellbeing of the human body that even small changes or damage to parts of the system can result in profoundly life-altering effects. This program focuses on acute injuries to the brain. Beginning with a brief discussion of increased intracranial pressure and cerebral edema, both of which are common in brain pathologies, it describes traumatic brain injuries and stroke.

DVD runtime: 28 min. © 2016

Pathophysiology: Neurological System: Acute Spinal Cord Injuries PATH103B

So vital is the central nervous system to the wellbeing of the human body that even small changes or damage to parts of the system can result in profoundly life-altering effects. This program focuses on acute injuries to the spinal cord including risk factors, classifications of spinal cord injuries, and descriptions of complications.

DVD runtime: 10:20 min. © 2016

Pathophysiology: Neurological System: Infections PATH103C

Since the central nervous system is crucial in the maintenance of health within the human body, it is important to understand the issues that can arise when infections occur. This program focuses on infectious processes of the central nervous system, including encephalitis, meningitis, and Guillian Barré, a post-infectious autoimmune disease of the peripheral nervous system.

DVD runtime: 18 min. © 2017

Pathophysiology: Neurological System: Seizures and Brain Tumors PATH103D

The brain and nerves are often thought of as a smooth-running highway of electrical activity inside the body. But uncontrolled electrical activity in the brain—a seizure—can result in tremendous disruption throughout the body, that in turn, can lead to an altered level of consciousness or other neurologic, motor, or behavioral manifestations. In some cases, the cause of the seizure is even more threatening—a brain tumor. This program describes the characteristics, risk factors, and symptoms of different types of seizures and brain tumors.

DVD runtime: 15:04 min. © 2017

Pathophysiology: Neurological System: Degenerative Disorders Part 1 PATH103E

Neurodegenerative diseases are progressive disorders that result in chronic, incurable, debilitating conditions that lead to damage or death of nerve cells. The consequences of these pathologies can result in motor, sensory, and/or cognitive dysfunction and eventually death. This program is the first of two parts on neurodegenerative diseases, and describes the characteristics, risk factors, and symptoms of chronic traumatic encephalopathy, Alzheimer's disease, Parkinson's disease, and Huntington's disease.

DVD runtime: 16:20 min. © 2017

Pathophysiology: Neurological System: Degenerative Disorders Part 2 PATH103F

This program is the second of two parts on neurodegenerative diseases, and describes the characteristics, risk factors, and symptoms of multiple sclerosis, amyotrophic lateral sclerosis, and myasthenia gravis.

DVD runtime: 17:11 min. © 2017

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