

Therapeutic Management of Patients with Cardiovascular Disease

Course Faculty: Dr. Ethel Frese, PT, DPT, MHS, CCS

Course Description

This two-day course will provide a comprehensive overview of the therapeutic management of patients with cardiovascular disease that are especially applicable in the field of both physical therapy and occupational therapy. This course will review the physiology as well as pathophysiology of the cardiovascular system and exercise physiology concepts. Instruction will focus on the management of patients with coronary artery disease, hypertension, congestive heart failure, valvular heart disease, pacemakers, peripheral arterial disease, venous disease, and pulmonary embolism. The concepts and principles of this course will enhance the participant's knowledge and clinical skills through lecture, case studies, videotape presentations, and demonstration/practice. Emphasis will be placed on practical methods for evaluation, clinical decision making process and effective treatment strategies using appropriate exercise. Evidence based information on a variety of therapeutic approaches will be discussed that will provide a foundation from which appropriate decision can be made with regard to patient needs. *This course is designed for participants with a basic to intermediate level of experience*

Learning Objectives

Upon successful completion of this course, participants should be able to:

- Discuss normal anatomy and physiology of the cardiovascular system and the changes that occur with the pathologies that are included
- Recognize and differentiate symptoms of coronary artery disease, pericarditis, hypertension, congestive heart failure, and valvular heart disease.
- Discuss normal and abnormal responses to exercise.
- Identify abnormal heart sounds and crackles and their implication in the management of patients with cardiovascular disease
- Understand and provide rationale for the use of various examination techniques for patients with cardiovascular disease in an effort to establish a PT/OT diagnosis, prognosis, and effective plan of care.
- Formulate an appropriate intervention for patients with hypertension, coronary artery disease, congestive heart failure, and valvular heart disease based on examination data.
- Differentiate between arterial and venous disease and discuss appropriate interventions for these diseases
- Assess the patient's response to interventions and modify the program as needed
- Discuss the effects of most commonly used medications in the management of cardiovascular disease and their impact on physical and occupational therapeutic interventions.

Contact Hours

Upon completion of this course, all participants will be given a certificate of attendance for 14.0 contact hours. This course is approved for 14 contact hours (1.4 CEU) by Physical Therapy Association of Illinois, Missouri, Ohio, Texas, Wisconsin, Arizona and 16.5CEH by Florida Physical Therapy Association. This course is also approved for 14 contact hours by Occupational Therapy Association of different states along with Florida Board of Occupational Therapy Practice (16.5

CEH). Illinois Occupational Therapy Association acknowledges continuing education credit of this course as it is approved by Illinois Physical Therapy Association. Contact your state board for specific filing requirements.

Course Agenda

DAY ONE

- 7:30 a.m. Registration
- 8:00 a.m. Cardiovascular Systems: Structures and functions, Cardiac tissue characteristics, Heart valves. Heart conductive tissue and electrical conduction, Blood supply
- 9:00 a.m. Exercise physiology concepts: Aerobic and anaerobic exercise, Physiological response to aerobic exercise
- 10:00 a.m. **Break**
- 10:15 a.m. Coronary Artery Disease: Incidence, etiology, clinical manifestations, medical management, therapeutic intervention, and exercise guidelines.
- 11:15 a.m. Myocardial Ischemia and Infarction: Incidence, etiology, clinical manifestation, medical management, therapeutic intervention, and exercise guidelines
- 12:15 noon **Lunch (on your own)**
- 1:15 p.m. Hypertension: Incidence, etiology, medical management, therapeutic intervention and exercise guidelines.
- 2:45 p.m. Congestive Heart Failure: Incidence, etiology, clinical manifestation, medical management, therapeutic intervention, exercise guidelines.
- 3:45 p.m. **Break**
- 4:00 p.m. Cardiac Examination, Heart sounds, Crackles, Vital Sign Response to Exercise, Walk Test.
- 5:30 p.m. Adjourn

DAY TWO

- 8:00 a.m. Valvular Heart Disease: Incidence, clinical manifestation, medical management, therapeutic interventions.
- 9:00 a.m. Peripheral Arterial Disease vs Venous Disease: Incidence, etiology, clinical manifestation, medical management, therapeutic interventions.
- 10:15 a.m. **Break**
- 10:30 a.m. Deep Venous Thrombosis and Pulmonary Embolism: Etiology, clinical manifestations, medical management, therapeutic interventions.
- 11:45 a.m. **Lunch (on your own)**
- 12:30 p.m. Pharmacological Management of Cardiovascular Disease and their Implications for Physical and Occupational Therapy
- 1:30 p.m. EKG Lab: Analysis
- 2:30 p.m. Questions with Discussion
- 3:00 p.m. Adjourn

Target Audience:

PT, PTA, OT, COTA

(Participants should bring a stethoscope for auscultating heart and lung sounds)