

**Course Title:** Spinal Cord Injuries 104 - Spinal Cord Injury: Functional Electrical Stimulation

**Course Description:** Spinal Cord Injuries 104, Spinal Cord Injuries: Functional Electrical Stimulation (FES), is a 3-hour course designed for the intermediate clinician interested in using FES to augment function in their patients with spinal cord injuries (SCI). FES technology has advanced over the past 2 decades and now there are several FDA approved devices that can be used within a variety of areas of SCI rehabilitation. FES has several uses and benefits including improving muscle strength, increasing endurance, increasing muscles size, improving cardiovascular functioning, enhancing upper extremity function, augmenting bladder function, modulating spasticity and improving standing for functional transfers. The clinician must be knowledgeable in the use of FES including the use of appropriate parameters, indications, contraindications, physiology, patient selection, general considerations and limitations of the use of FES. Case studies are used to highlight clinical and functional application. At the end of this course, the learner will have a more comprehensive understanding of FES and how it can be used with patients with SCI.

**Target Audience:** OT / OTA and other healthcare professionals

**Course Type:** Video vs. Text-based

**Educational Level:** Beginner, Intermediate, Advanced

**CE Hours:** 3 contact hour / .3 ceu

**Course Prerequisites:** None

**Course Author / Instructor:** Pouran D. Faghri, MD, FACSM, MS, Susan V. Garstang, MD, and Sue Kida, PT, MHA/ Brown, MS, OTR/L

**Learning Objectives:**

- Discuss the history of FES
- Become familiar with various uses of FES with SCI rehabilitation
- Differentiate the parameters for the use of FES with SCI rehabilitation
- List 5 contraindications for FES
- Examine the physiology of FES
- Identify and define key terminology associated with FES
- Discuss the effects of FES
- Describe how FES can be used with cardiovascular reconditioning
- Discuss the role of FES with standing and gait
- Identify the significance of FES in the restoration of upper limb function

## **Agenda:**

### **Hour #1**

Introduction

History

Uses of Functional Electrical Stimulation in Spinal Cord Injury

Contraindications and Precautions

Physiology of Functional Electrical Stimulation

### **Hour #2**

Functional Electrical Stimulation

Systems Effects of Functional Electrical Stimulation

Cardiovascular Reconditioning

Restoration of Upper Limb Function

### **Hour #3**

Standing and Gait Other Uses of Functional  
Electrical Stimulation

Case Study #1

Case Study #2

Summary

### **Course Completion Requirements:**

A passing score of 100% is required for course completion. You will have as many attempts as needed until your passing score of 100% is achieved. Upon successful completion of course and completing a satisfaction survey, you will receive your certificate of completion.

### **Additional Course Information**

**Course Registration:** Register for Free at [www.OnlineCE.com](http://www.OnlineCE.com). Once registered, you can begin to purchase courses. Contact [info@onlinece.com](mailto:info@onlinece.com) for special needs requests and assistance.

**Refund Policy:** There will be no refunds for courses taken at OnlineCE.com or monies deposited into My CE Bank. Any money on account will be used for taking future courses. If you start a course in error, or if you are dissatisfied with a course, please contact us in the first part of the course and we will void the course and you can select a replacement course.

**Cancellation Policy:** Only available courses are offered online and on-demand and available for purchase. No registration fees are collected for courses that are not provided on-demand. Due to the online and on demand format, courses are not cancelled.

**Course Date and Location:** This is an independent course that is available 24/7 on-demand at [www.OnlineCE.com](http://www.OnlineCE.com).

**Required Materials and Equipment:** Courses offered on OnlineCE.com can be accessed on any type of computer or device. No special software is required but we do recommend the use of

the Chrome Browser (recommended, not required). All course materials are contained within the courses and no prerequisites are required.



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