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AOTA Approved Provider #4023

**Course Title:** Concussion 110

**Subtitle:** – Imaging of Concussion in Young Athletes

**Course Description:** Conventional neuroimaging examinations are typically normal in concussed young athletes. A current focus of research is the characterization of subtle abnormalities after concussion using advanced neuroimaging techniques. These techniques have the potential to identify biomarkers of concussion. In the future, such biomarkers will likely provide important clinical information regarding the appropriate time interval before return to play, as well as the risk for prolonged postconcussive symptoms and long-term cognitive impairment. This article discusses results from advanced imaging techniques and emphasizes imaging modalities that will likely become available in the near future for the clinical evaluation of concussed young athletes.

**Target Audience:** PT/PTA, OT/OTA and Other Healthcare Professionals

**Course Length:** 1 hour

**Course Instructor:** Brown, MS, OTR/L, CHT

**Educational Level:** Introductory, Intermediate, Advanced

The course is written at the intermediate level, but learners of all levels will benefit from the information.

**Course Objectives:**

At the end of the course, participants will be able to:

- Describe gender differences in concussion
- Describe factors and considerations regarding the timing of imaging
- Discuss considerations regarding patient selection for imaging
- Describe two pathological findings on imaging of an individual with concussion
- Outline 3 Current concerns regarding imaging of sports-related concussion
- List and describe 5 important things that referring physicians need to know

**Outline of Content:**

**Hour #1**

- Key points
- Introduction

- Epidemiology
- Sex differences in concussion
- Considerations regarding timing of imaging
- Objective of this article

1. Normal Anatomy and Imaging Technique
  1. Traditional clinical anatomic imaging
  2. Considerations regarding patient selection for imaging
2. Imaging Findings/Pathology
  1. Clinical anatomic imaging
  2. Structural quantitative high-resolution magnetic resonance imaging
  3. Tissue architecture diffusion tensor imaging
  4. Susceptibility-weighted imaging of microhemorrhage
  5. Regional blood flow imaging
  6. Functional magnetic resonance imaging
  7. Metabolic imaging
  8. Current concerns regarding imaging of sports-related concussion
3. Diagnostic Criteria (List)
4. Differential Diagnosis (List/Callout Box)
5. What Referring Physicians Need to Know (List)

- Summary

**Instructional Methods and Formats:**

Online course available 24/7 at [www.OnlineCE.com](http://www.OnlineCE.com) includes Audiovisual format and PDF downloadable handout. See course formats for additional details.

**Course Completion Requirements:**

A minimum 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, you will receive your certificate of completion.

**Additional Policies:**

OnlineCE Policies are available by clicking on the tab – Policies – located in the left-hand navigation bar.