Title: The Gut, Mouth, Brain Connection

Instructor: Cindy M. Howard, DC, DABCI, DACBN, FIAMA, FICC

Total Hours: 2 hours

**Topic:** Nutrition

**Description:** In this enlightening course, participants will delve into the intricate relationship between the gut, mouth, and brain, uncovering the profound impact this interconnected system has on overall health and well-being. Through a comprehensive exploration of research, case studies, and treatment protocols, attendees will gain valuable insights into the role of infections, inflammation, and nutrition in shaping the health of the gut, mouth, and brain.

## **Course Objectives:**

Understand the Interconnectedness of the Gut, Mouth, and Brain Evaluate the Impact of Infections on Gut and Oral Health Implement Evidence-Based Treatment and Nutritional Strategies

## Hour 1:

Introduction to the Gut, Mouth, and Brain Connection:

- Explore the fascinating interconnectedness of the gut, mouth, and brain, and the implications for overall health and cognitive function.
- The Role of Infection in the Brain, Gut, and Mouth:
- Investigate how infections can affect all three components of the gut-mouth-brain axis, contributing to systemic inflammation and neurological dysfunction.
- Impact of Brain Injury (TBI) on Gut Health:
- Examine the bidirectional relationship between traumatic brain injury (TBI) and gut infections, highlighting the potential consequences for cognitive health.
- The Importance of Mouth Health:
- Recognize the significance of oral health in maintaining overall health and its interconnectedness with gut and brain health.
- Studies on Pathogens in the Mouth and Their Role in Illness:
- Review research findings on oral pathogens and their implications for systemic health, including their potential involvement in various diseases and conditions.

## Hour 2:

Common Gut and Oral Infections:

- Explore the prevalence of gut and oral infections and their relationship to neurotransmitter dysfunction, systemic inflammation, and cognitive health.
- Treatment Protocols for Gut and Mouth Infections:
- Discuss evidence-based treatment protocols for addressing gut and oral infections, including proper testing methods and therapeutic interventions to reduce inflammation.

- Nutritional Recommendations for Infections and Inflammation:
- Learn about nutritional strategies to support gut and oral health, including dietary recommendations for managing infections, inflammation, and associated neurotransmitter dysfunction.
- Case Studies and Research Evidence: Analyze case studies showcasing treatment protocols for conditions such as SIBO, parasitic infections, yeast overgrowth, and bacterial infections, as well as TBI-associated infections in athletes.
- Review research demonstrating the effectiveness of treating oral pathogens and their impact on biofilms in the mouth and gut.

## Instructor Methodology

Lecture: The instructor will deliver content through informative lectures, providing background information, statistics, and case examples.

Visual Aid: Slides will be used to visually reinforce key points, provide data, and showcase examples.