

## **Introduction to Ultrasound Imaging for Lumbopelvic Rehabilitation**

### **Description**

Rehabilitative ultrasound imaging (RUSI) allows for valid, reliable, efficient, and non-invasive measurement of motor control deficits of the deep stabilizing muscles. This continuing education course will provide a basic understanding of how to utilize RUSI for addressing a variety of diagnoses associated with lumbopelvic dysfunction. The material will explore the basic science, clinical evidence, image generation, and sonographic anatomy for evaluation of tissue morphology and training the muscles of local control. T

The course format includes a list of RUSI resources and RUSI Terminology. Lectures on basic ultrasound science, image generation, and various clinical applications, followed by technique demonstrations that display a split-screen, showing the ultrasound transducer on the body with a simultaneous view of the ultrasound screen.

Anatomic regions covered:

- Anterior and lateral abdominal wall
- Transabdominal approach to the pelvic floor
- Lumbar multifidus

### **Instructional Level**

Intermediate clinical experience but beginning level for ultrasound imaging. For scope of practice guidelines participants should consult their professional practice act for limitations or training requirements. Content is not intended for use outside the scope of the learner's license or regulatory agency

### **Prerequisites**

Licensed health care provider with working knowledge of musculoskeletal anatomy of the lumbopelvic region and the muscles of local control. Prior experience with or access to rehabilitative ultrasound imaging equipment is not required.

## **Objectives**

Upon completion of this web-based course participant will be able to:

1. Understand current clinical applications of rehabilitative ultrasound imaging (RUSI) in the scope of physical therapy
2. Understand basic imaging principles and ultrasound terminology
3. Understand the science and equipment requirements to perform RUSI
4. Understand the pre-scan sequence and the standard US approach to viewing structures
5. Identify relevant sonographic landmarks, for the abdominal wall, pelvic floor, bladder, and lumbar multifidus on an ultrasound image
6. Make basic morphologic and morphometric measurements of anatomy and motor function such as muscle thickness

