and the athletic trainer palpates for bilateral TA contraction just medially and inferiorly to the anterior superior iliac spines and lateral to the rectus abdominis (Figure 5-6A).

The Stabilizer pad may also be placed under the lower lumbar region to monitor whether compensation occurs with the pelvis (Figure 5-6B). The pressure reading should remain the same throughout the test. A change in the pressure reading indicates that the patient is tilting the patient’s pelvis anteriorly (pressure decreases) or posteriorly (pressure increases) in an attempt to flatten the patient’s lower abdomen. The patient is asked to hold this contraction for a minimum of 10 seconds, with a slow and controlled release. With a correct contraction of the TA, the athletic trainer feels a slowly developing deep tension in the lower abdominal wall. Incorrect activation of the TA would be evident when the internal oblique dominates and this is detected when a rapid development of tension is palpated or the abdominal wall is pushed out rather than drawn in.

The neuromuscular control of the multifidi is examined with the patient in the prone position and the therapist palpating the level of the multifidus for muscular activation (Figure 5-7). The patient is instructed to breathe in and out and to hold the breath out while swelling out the muscles under the therapist’s fingers. The patient is then asked to hold the contraction while resuming a normal breathing pattern for a minimum of 10 seconds. The athletic trainer palpates the multifidus for symmetrical activation and slow development of muscular activation. This sequence is repeated at the multiple segments in the lumbar spine. Compensation patterns may include anterior or posterior pelvic tilting or elevation of the rib cage in an attempt to swell out the multifidus.

A proper and thorough evaluation of the core muscles will lead the athletic trainer in developing a proper core stabilization program. It is imperative that neuromuscular control of the TA and multifidus precedes all other stabilization exercises. These muscles provide the foundation from which all the other core muscles work.

Clinical Decision-Making Exercise 5-5
You have been training a softball player on a core strengthening program for 1 week. She has been making improvements, and you think that it is time to progress her. What is your goal, and what parameters should you consider when progressing her?