

Now consider how the term *instability* might apply to the rest of the core. Let's try out the term instability to mean: dysfunction enough to cause disabling pain during routine activities. Take the pubic bone joint as a test example; dysfunction would apply to the slippage of the fibrocartilaginous "loose baseball" cover during cutting or jumping. For the pubic symphyseal joint, it might mean the 2 sides of the pubic symphysis rubbing against each other. For the back, it might mean 2 vertebral bodies moving as a disc dislodges.

One can go on and on describing different types of core instability (eg, the rectus femoris causing instability of the anterior thigh). No doubt, many types of pelvic instability exist, yet have never been described. Consider all the different mini-joints in the pelvis and the many small parts of bones that reside there connected by large and small ligamentous structures. Also, think about the enormous number of patients in the world with undiagnosed and disabling pelvic pain who sit, over and over again, in the waiting rooms of gynecologic, urologic, and primary care offices.

Let's end this discussion by defining core instability. Let's use this extrapolation from what we have just discussed:

Core instability: Any biomechanical dislodgment within the core that causes enough pain during routine activities to interfere with one's quality of life.

Most subsequent instability discussion in this chapter shall focus on hip or pubic bone instability since we know the most about those problems.

TABLE 14-1
NEW DEFINITIONS OF CORE INSTABILITY

Instability	Any biomechanical dislodgement of a core joint that produces unrelenting and disabling pain during routine activities
Hip instability	The femoral head dislodging enough from its normal position to cause predictable, unrelenting, and disabling pain during routine activities
Core instability	Any biomechanical dysfunction of a joint within the core that causes enough predictable pain during routine activities to interfere with one's quality of life

As mentioned, pain generation has to be part of whatever definition of instability one chooses. Therefore, in this chapter we shall succinctly list the muscles and what we do know about their anatomy and function. In so doing, keep in mind what structures lie next to what and where the nerves reside (eg, the periosteum of bones). Then one may speculate where pinching of nerves or other structures occurs.

Likewise, remember that this new look at the core is just that—new. Therefore, it is fair game for debate. It is also entirely fair game for discovery. As you read further, keep alive these concepts of stability and instability. Those concepts help keep us from too much debate. The concepts shall also help us recognize new methods of treatment (eg, new physical therapy methods, new places to inject, new surgical procedures). As treaters, one way to think about our primary goal is to transform unstable cores into stable ones.

As you read on, also think about the specific location of each muscle or muscle group and what portion of the core the muscles likely help stabilize, plus the likely importance of that contribution to overall core stability.

TENSOR FASCIAE LATAE AND THE ILIOTIBIAL BAND AND "THE LAYER CONCEPT" OF HIP STABILITY

The TFL and iliotibial band (ITB) seem like simple anatomic structures (Figure 14-2). We shall describe them simply. In reality, these seemingly simple structures are not so simple after all. They represent much more importance than a description of their location, attachments, and thick appearance. Together, they represent, potentially, a hugely important layer for hip stability.