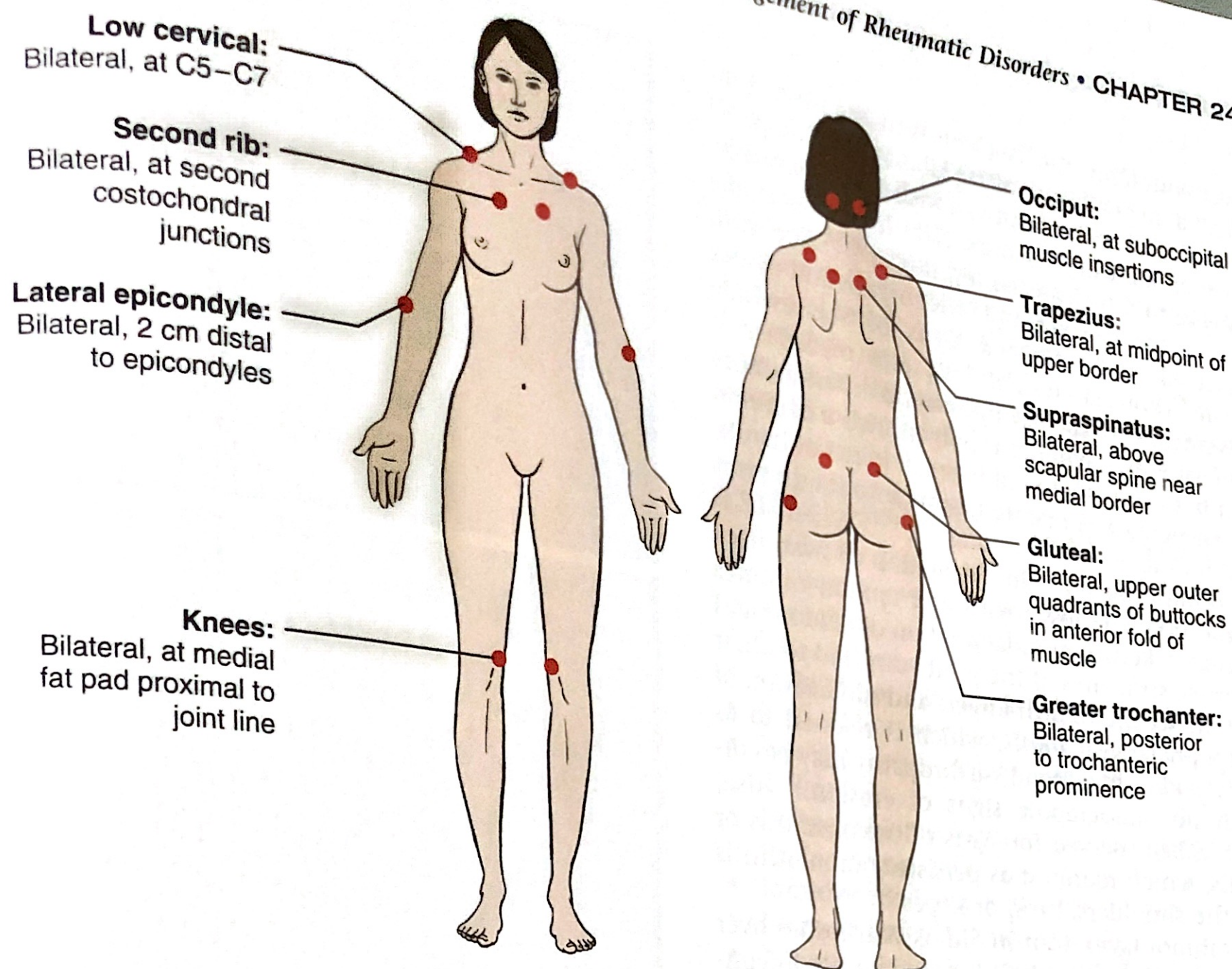




Tender Point Index
 0 No tenderness
 1+ Tenderness without withdrawal
 2+ Tenderness and withdrawal
 3+ Tenderness and exaggerated withdrawal
 4+ Untouchable

FIG 24-9 Anatomic locations of tender points associated with fibromyalgia. (From Goodman CC, Snyder T: *Differential diagnosis for physical therapists: screening for referral*, ed 4, Philadelphia, 2007, Saunders.)

Exercise is an important aspect of fibromyalgia management and is shown to have numerous benefits.^{12,19,27,31} The exercise program should not be progressed too fast, and it is suggested to have patients start below a level they believe they can accomplish.¹² Modalities are useful in decreasing acute pain allowing patients to start an exercise program.^{19,31} Stretching can help improve flexibility and decrease pain. Stretching should be done in a pain-free range and can start with 10- to 15-second holds and progress up to 1 minute. It is important to perform stretches at least once a day. Heat alone can help with muscle pain, but it is also beneficial to use heat before stretching.^{12,31} Aerobic exercise has been shown to decrease pain and improve function in patients with fibromyalgia.^{12,31} The exercise routine can be broken into several shorter bouts throughout the day or one longer 30-minute session. Depending on fitness level, some patients may need to start with 5 minutes of exercise daily and work up to 30 minutes slowly. It is very important that the patient avoid overexertion because this can lead to increased symptoms.¹² Strengthening can help reduce the risk of muscle damage, but the patient should attempt to reduce eccentric muscle work.¹² Patients should pause for about 4 seconds between repetitions to allow for complete muscle relaxation. Lifting above the head and shoulders should

be avoided to reduce risk of shoulder girdle injury or overuse. Water therapy or aerobics is a good alternative because the warmth and decreased pressures can lead to better relaxation.¹²

SYSTEMIC LUPUS ERYTHEMATOSUS

Systemic lupus erythematosus (SLE) is a chronic inflammatory autoimmune disorder that may affect multiple organ systems.^{9,19,27,51} SLE is most common in women during their childbearing years and is rarely found in older individuals.^{9,19,27,51} In SLE, the body produces antibodies against itself.¹⁹ The antigen-antibody complexes in tissues suppress the body's immunity and damage tissues. The etiology of SLE is unknown, but environmental and genetic factors are believed to be the most related with evidence also supporting interrelated immunologic and hormonal factors.¹⁹ Many risk factors exist for SLE with hereditary factors at the forefront, along with physical and mental stress, streptococcal or viral infections, exposure to sunlight or ultraviolet light, and abnormal estrogen metabolism.¹⁹ Physical therapy diagnosis for SLE is not difficult if the patient presents with common symptoms associated with SLE. The diagnostic criteria of the American Rheumatism Association for SLE require the patient to show 4 or more of the 11 symptoms. If the patient