

CLINICAL COMMENTARY

ROLLING REVISITED: USING ROLLING TO ASSESS AND TREAT NEUROMUSCULAR CONTROL AND COORDINATION OF THE CORE AND EXTREMITIES OF ATHLETES

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ABSTRACT

Rolling is a movement pattern seldom used by physical therapists for assessment and intervention with adult clientele with normal neurologic function. Rolling, as an adult motor skill, combines the use of the upper extremities, core, and lower extremities in a coordinated manner to move from one posture to another. Rolling is accomplished from prone to supine and supine to prone, although the method by which it is performed varies among adults. Assessment of rolling for both the ability to complete the task and bilateral symmetry may be beneficial for use with athletes who perform rotationally-biased sports such as golf, throwing, tennis, and twisting sports such as dance, gymnastics, and figure skating. When stability-based dysfunction exists, the rolling patterns can be used as intervention techniques, and have the ability to affect dysfunction of the upper quarter, core, and lower quarter. By applying proprioceptive neuromuscular facilitation (PNF) principles, the therapist may assist patients and clients who are unable to complete a rolling pattern. Examples given in the article include distraction/elongation, compression, and manual contacts to facilitate proper rolling. The authors assert that therapeutic use of the developmental pattern of rolling with techniques derived from PNF can be creatively and effectively utilized in musculoskeletal rehabilitation. Preliminary results from an exploration of the mechanism by which rolling may impact stability is presented, and available updated evidence is provided. The purpose of this clinical commentary is to describe techniques for testing, assessment, and treatment of dysfunction, using case examples that incorporate rolling.

Keywords: Developmental sequence, rolling, neuromuscular sequencing

Level of Evidence: 5

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