Prolotherapy in Primary Care Practice

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KEYWORDS

- Prolotherapy Injection therapy Osteoarthritis
- Tendinopathy Low back pain
- Chronic musculoskeletal pain

Prolotherapy is an injection-based complementary and alternative medical (CAM) therapy for chronic musculoskeletal pain. It has been used for approximately 100 years; however, its modern applications can be traced to the 1950s when the prolotherapy injection protocols were formalized by George Hackett,¹ a general surgeon in the United States, based on his clinical experience of more than 30 years. Prolotherapy techniques and injected solutions vary by condition, clinical severity, and practitioner preferences; a core principle is that a fairly small volume of an irritant or sclerosing solution is injected at sites on painful ligament and tendon insertions and in adjacent joint space over several treatment sessions.^{1,2} Interest in prolotherapy among physicians and patients is high. It is becoming increasingly popular in the United States and internationally and is actively used in clinical practice.^{3,4} A 1993 survey sent to osteopathic physicians estimated that 95 practitioners in the United States were estimated to have performed prolotherapy on approximately 450,000 patients. However, only 27% of surveys were returned; consequently, the true number of practitioners was probably dramatically underestimated.⁵ No formal survey has been done since 1993. The current number of practitioners actively practicing prolotherapy is unknown but is probably several thousand in the United States based on attendance at continuing medical education (CME) conferences and physician listings on relevant Web sites. Prolotherapy has been assessed as a treatment for a wide variety of painful chronic musculoskeletal conditions that are refractory to "standard-of care" therapies. Although anecdotal clinical success guides the use of prolotherapy for many conditions, clinical trial literature supporting evidence-based

Grant Support: None.

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Portions of this article were adapted from Rabago D, Best T, Beamsly M, Patterson J. A systematic review of prolotherapy for chronic musculoskeletal pain. Clin J Sports Med 2005;15(5):376–80; with permission.

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