Complementary and Alternative Treatment for Neck Pain: Chiropractic, Acupuncture, TENS, Massage, Yoga, Tai Chi, and Feldenkrais

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• CAM therapy • Acupuncture • Chiropractic • TENS • Yoga • Tai Chi • Massage therapy • Feldenkrais

Neck pain is a modern American epidemic, affecting most adults at some time during their lives. In a survey of more than 2000 individuals, 54.2% of respondents experienced neck pain in the previous 6 months and neck pain disabled 4.6% of the adult population surveyed.[1] A 2007 National Health Interview Survey conducted by the Centers for Disease Control and Prevention's National Center for Health Statistics reported approximately 38% of adults and almost 12% of children used some form of complementary and alternative medicine therapy.[2] Although western medicine offers many options for the management of neck pain, most have modest efficacy at best and there are few with clearly demonstrated benefits. Therefore, many patients with chronic neck pain turn to complementary and alternative medicine (CAM)

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including chiropractic, acupuncture, transcutaneous electric nerve stimulation (TENS), massage, yoga, Tai Chi, and Feldenkrais to help manage their pain.

CHIROPRACTIC CARE

Since the beginnings of the chiropractic profession in the United States in 1895, there has been continued growth and interest in this therapeutic option. By the late 1990s, of the 42% of individuals using at least one form of alternative therapy within the past 12 months, 11.1% received chiropractic care.[3] Furthermore, nearly 8% of adults and 2.8% of children received chiropractic or osteopathic manipulative therapy in the prior 12 months.[2]

An important principle of chiropractic care involves functional reactivation of the patient. Whereas spinal manipulative therapy (SMT) remains a central feature of chiropractic care, this modality may be used in combination with rehabilitative exercises, ice, heat, electric stimulation, ultrasound, and encouragement of healthy lifestyle modifications. During the course of treatment, the gradual return to activity is encouraged. Ongoing reassessment helps ensure a path toward optimal recovery.[4]

The goals of SMT are to restore dysfunctional joint mechanics and to reduce mechanical stress on the adjacent tissues, thereby reducing pain. Three types of SMT have been described, including unloaded spinal motion, manual repetitive oscillations, and high velocity low amplitude (HVLA) manipulation. Unloaded spinal motion involves continuous passive motion with motorized tables and manual application of flexion-distraction techniques. HVLA manipulation is performed by delivering a quick, impulse-like thrust within a joint's range of motion. The chiropractor may choose a specific SMT technique considering such factors as the patient's age, stature, and diagnosis.[5]

Various theories have attempted to explain the benefits of chiropractic manipulation. Examples include the release of plica or entrapped synovial folds, the relaxation of hypertonic muscle by sudden stretch, the disruption of articular or periarticular adhesions, and the restoration of normal motion to displaced joints or vertebral segments.[6] The biomechanics of chiropractic manipulation have been well described by Triano.[5] Indications for SMT include focal tenderness to palpation, abnormal tissue tone, symptoms reproduced with provocative testing, and joint dysfunction or reduced mobility. Contraindications for SMT are listed in **Box 1**, including instability, infection, myelopathy, and so forth.[4]

Research has shown short-term treatment effect of SMT with exercise. A 2004 Cochrane review of mechanical neck disorders reported that mobilization and/or manipulation combined with exercise compared with no treatment led to improved function, pain reduction, and perceived effect.[7] A subsequent review of subacute and chronic neck pain reported that the combination of mobilization, manipulation, and exercise demonstrated greater short-term pain relief and quality of life improvements than exercise alone. Greater short-term pain reduction was also achieved in patients with acute whiplash with the combination of chiropractic treatment and exercise compared with traditional care, defined as any two of the following: cervical collar, advice, or pain medication. Radicular symptoms were not assessed.[8] Results from The Bone and Joint Decade (2000–2010) Task Force on Neck Pain and Associated Disorders showed education, mobilization, and exercise to be more efficacious than usual care or physical modalities for whiplash-associated disorders.[9]

Recent reviews have also demonstrated some benefits of SMT for neck disorders when used alone. A 2010 Cochrane review demonstrated "low-quality" evidence that neck manipulations for acute or chronic cervical conditions reduce pain in