

Hip Pain: Be the Go-To Clinician for Dance Injuries in Your Area

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If you are not including the dance community in your practice, now is the time to reconsider. With the popularity of dance-based TV shows and movies, there has never been a better time to broaden your knowledge base by working with this unique population. Today, dancers can be found everywhere: in ballet studios, high school dance teams, community programs and college cheerleading squads. Working with dancers will enhance and expand your practice and affords you the chance to "give back" to your community by contributing to the arts. The growing dance population is definitely ready for your chiropractic support and intervention. Practitioners with the unique knowledge of dance and its related injuries are needed today, more than ever.



As chiropractors, we are frequently called upon to deal with a variety of hip pain. Sometimes that "hip" pain described by the patient is not actually a hip problem at all. The injured dancer deserves a practitioner competent in rendering a differential diagnosis: it is imperative to identify not only the damaged structures at the site of pain, but also the functional movement patterns that are potentially the underlying cause of the condition.

A Case Study

SDG is an 18-year-old female ballet student who presented for evaluation and treatment. She was referred by her ballet teacher for hip pain she'd had on and off for over a year with no known trauma. She also reported mild lower back pain that occurred infrequently over the past several years. SDG's weekly dance routine is intense. Including classes and rehearsals, her training typically runs for five to six hours, six days per week. Her examination was normal except for a decrease in right ankle dorsiflexion.

The young dancer was treated palliatively five times over the course of a two-week period with manipulation to the spine and left hip. Interferential muscle stimulation was applied to the left hip for pain control. She was transitioned to an active rehabilitative program after the fifth session and treated for an additional six weeks.

Once a case has been accepted, the next step is to help reduce pain as soon as possible. Liebenson, et al. point out that 50% of patients were found to be significantly better within four visits or two weeks of starting chiropractic care; 75% were better by 12 visits.¹

During the initial phase, care for the dancer resembles that of other populations. This included following price protocols until a measure of stability emerges.² Unfortunately, many dance patients leave care before rehabilitation has commenced, putting them at risk to suffer repeated injurious episodes. Dancers are a particularly driven group, typically resisting sitting out of class even during the initial acute phase of care. This is a particularly unenlightened position that can lead to a more severe injury and resultant disability. As Sonia Rafferty, MSc, points out, "the concept of

rest intervals is significantly absent in dance pedagogy."³

The Real Work

The real challenge to the chiropractor begins with those who do continue with care. As typically seen in dancers, SDG had minimal range of motion issues. In fact, except for her minimal loss of right ankle mobility, she presented as extremely mobile. She exceeded expectations in the one-legged balance testing with eyes open and closed. So, the question was: how could she be challenged in an active rehab program that would aid in preventing future injuries and help her improve as an elite classical dancer? In order to rehabilitate the injured dancer, it is imperative that you familiarize yourself with basic dance terminology and movements. Observing a dance class is a great way to begin. Ask questions of teachers, parents and students. Establish an hour or two of your time each week at the dance school to treat what you're comfortable with and learn. It can be a perfect setting to enhance your clinical acumen.

The course of treatment chosen for SDG was largely based on Sensory Motor Stimulation (SMS). According to Liebenson, "SMS can be beneficially used as a part of any exercise program because it helps to improve muscle coordination and motor programming or regulation and it increases the speed of activation of a muscle. It was used originally to improve the unstable ankle after an injury; however it can be used for a variety of conditions. Chronic back pain syndromes are one of the most important indications. Better control of the trunk, improved activation of the gluteal muscles and thus better control of the pelvis is achieved."⁴

"German researchers published a systematic review of the efficacy of balance training for neuromuscular control and performance enhancement in the *Journal of Athletic Training*. They noted:

- Balance exercises are recommended for postural and neuromuscular improvements, particularly for rehabilitation and preventive purposes.
- Longer balance training durations of 6 to 12 weeks seem more effective than shorter 4 week durations."⁵

Functional Training and Rehabilitation

The first phase of active rehabilitation for SDG consisted of floor-based exercises: these were primarily used for improving stability of the lower back and helped limber the spine. She was taught cat-camel (cow), quadruped leg reach and bird dog maneuvers. The overhead squat, side bridges, planks and various supine bridges were added to her regimen, as recommended by Stuart McGill in his book, *Low Back Disorders: Evidence-Based Prevention and Rehabilitation*.⁶

This protocol was followed twice weekly for two weeks and served as a prelude to all future rehab sessions. During this period of time, SDG reported little to no discomfort in her left hip and was eager to proceed to the next phase of active rehabilitation.

At the start of week five of care and week three of active rehab, SDG performed one legged balance exercises on the floor, bilaterally, for 120 seconds. Then she proceeded to each successive stabilizer pad, in order of ascending difficulty, green to blue and finally black. She had to perform at each level for 90 seconds with her eyes open before transitioning to the next, increasingly unstable surface. At this point, different ballet moves were blended into SDG's active care. As Dr. Liebenson reports, "What enhances performance prevents injury." This is where a basic knowledge of classical dance integrated into care will make the clinician stand out and be sought after by the injured dance population.

SDG was introduced to the round board during the last week of her rehabilitation and performed arabesques and other ballet movements on this new challenging labile surface. On the last day of our work together, SDG performed all of the different ballet movements discussed, on unsteady surfaces. She added 5' plies to each arabesque on the round board, and she was asked to hold for a five count on the last plie. At the end of the last visit she reported no pain and had returned to fully engage in all aspects of her ballet studies.

I am fortunate to be involved with numerous dance communities. As a result, over time I have established lifelong associations with many professional dancers, teachers, students and parents. When you are recognized as someone who wants to truly serve and are there to help, doors will open that you can never imagine. Treating dancers is rewarding both professionally and personally.

References:

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