

Dance Medicine

A Specialty for a Unique Athlete

BY EMBER REICHGOTT JUNGE



Dr. Brad Moser speaks to providers at a conference hosted by the Minnesota Dance Medicine Foundation. Photo provided by Minnesota Dance Medicine Foundation.

YOU LOVE TO BALLROOM DANCE. YOU feel pain in your ankle or shoulder, or maybe your lower back. You ignore it; it will go away, right? You push through because you are a professional and teaching is your livelihood, or your competition career is at risk. Or you keep dancing because you identify as a social dancer or amateur competitor and your passion provides community and purpose in your life. It's easier to ignore the pain.

Until you can't. Finally you see your family physician. She advises that you need to rest and refrain from dancing for weeks or even months to recover. Not what you want to hear. So you ignore her advice.

You want help from a provider who understands you *as a dancer*. You're in luck. The Twin Cities is a national leader in such a specialty. It's called dance medicine.

"I think it's hard with dancers. They are similar to runners. You can't just tell them to stop," began Dr. Megin Sabo John, a Doctor of Physical Therapy at Twin Cities Orthopedics. "If you tell a runner to stop, he'll just go to another person. As a provider, I can help with a strategy to modify or limit the time; maybe dance one hour a day rather than four. Or maybe focus on a particular style of dance, because each style has its own demand. It's about negotiating what is healthy participation for the dancer. It's more like a 5K than a marathon."

John is a provider of dance medicine, a unique group of medical personnel (physicians, physical therapists, psychologists, nutritionists, among others) who take care of dancers. A classical ballet performer herself and lover of African dance and lindy hop, she came to Minnesota about ten years ago because Minnesota had a thriving dance medicine community.

It was Dr. Brad Moser, a family medicine-trained doctor, classical pianist and salsa dancer, who sparked that dance medicine community in Minnesota around 2004. He was completing a sports medicine fellowship at Hennepin County Medical Center when a professional dancer friend told him, "Brad, if you are in sports medicine, you need to be a 'go-to' dance medicine doctor because there isn't one in town we can trust." Today Moser is indeed the "go-to" dance medicine doctor in the Twin Cities, and founder of the Minnesota Dance Medicine

Foundation, where John serves with him on the board of directors.

What makes dance medicine different from other sports medicine?

"It's important for the dancer to understand that he or she is an athlete," began Moser of Twin Cities Orthopedics. "I call them dancer athletes. You treat them as athletes; you investigate what may occur in that sport versus other sports. There are certain specific things that occur in a dancer that wouldn't occur in a hockey player. For example, a hockey player wears a boot so the risk of ankle injuries is low. A dancer has a high rate of ankle injuries from sprains to stress fractures to impingement issues. It's knowing the specificity of the dancer athlete, to know to look for those things when you see them."

There is a wealth of research and collegiality at global dance medicine conferences that helps providers approach the dance athlete with a different index of suspicion.

"I tell my provider learners: never let a dancer with back pain leave your office without ruling out a stress fracture," continued Moser. "It's not stress or sprain; they wouldn't be in there for that. Dancers are some of the toughest athletes I've ever taken care of. They are very dedicated to their sport, and they just push through. If a dancer has had back pain for a while, you need further imaging to sort out whether there is a stress fracture."

Dance medicine providers earn trust because they understand the language of dance. Said John, "Dance being my background, it's the language I spoke. I related to dancers because I understood what their training schedule is like. When you talk about ballet in particular, there is a lot of vocabulary that goes with it. I get a lot of buy-in from the patient. They believe I understand

their sport or passion or career. It is very rewarding. They are thankful for your services and that you understand what they do for a living. It's different than going to a sports medicine provider who specializes in football; they might not understand the specific demand on the dancer body."

Dance Medicine for the Ages

The age of the dancer is a critical guide for the dance medicine provider. For example, youth and adolescents should not engage in their sport more than their age in hours per week. "If you are 16 and dancing 25 hours per week, you are dancing too many hours for what your body can handle," explained John. "We have to educate young dancers and get buy-in from them and their parents. Their frontal lobe is not fully developed yet and their decision-making abilities are not there." Said Moser, "We know from research that if a young athlete is exercising greater than his age in hours per week, the injury rate goes up exponentially. That's well proven. They have to be aware there will be a significantly increased injury rate in those dancers."

Once the human skeleton matures, growth plates have closed, and bones are fully developed, the impact is different. "Then we are looking at 'loading' over time," said John. "If you start dancing at 10 hours per week, and you want your end range at 40 hours per week, you have to build up slowly to that. You can't jump from 10 to 40 hours in a week or you'll have an over-use injury." Hopefully, as adolescents move to adulthood, they will listen to their bodies and get things checked out early, "so that people like Megin and myself can make sure we are nipping that very minor injury very fast so it doesn't become a bigger injury," said Moser.

As the adult moves into middle age, the dancer must understand that the body is aging too. "We have a very active population in the Twin Cities," said Moser. "We have active middle-aged people come in and say, 'Hey doc, why does my Achilles hurt so bad?' 'Well, how old are you, Jim?' 'About 50.' 'Well, so is your Achilles tendon!' We help the patient understand they won't heal as well as a 15-year-old. The integrity and healing potential of the tendon is just not as good as it was back then. They may be overusing it." Age may also be deceptive. If a 40-year old female dance teacher comes in with hip pain, she may have typical arthritis in that hip because she's experienced excessive movement and instability in her hips.

John often supports the aging dance athlete with physical therapy exercises to prevent injury and to prevent or relieve pain. Frequent dancing, particularly if the dancer repeats movements over and over, puts great demand on the body. "The reality is that as you age, your body is slowly deteriorating, and you have to support it. You want

to add balance exercises and strength training. You have to work your cardio," she explained. "You have to work on your recovery tools, whether that's massage, Epsom salt baths, massage guns or foam rollers. You must do all the support work to make your body healthy enough that you can keep doing it day after day. There's a lot of independent time that comes in managing your body. I try to teach my patients how to do that. That's the ownership of being able to then do the work." And if a female is losing bone density, she also needs to support her bone health to prevent osteoporosis.

For the ballroom dance frame, it is about the upper thoracic spine, says John. "How much extension do you have there?" she asks. "If you want a bigger look, you will get it from somewhere else, which may engage the lower back. You need core strength to support that leaning position, so you are not just holding onto your partner. You're meeting your partner where he is. You are supporting your own body."



Dr. Megin Sabo John conducts an exercise class for dancers. Photo provided by Dr. Megin Sabo John.

Shoulders are vulnerable in adult ballroom dancers. “If you are not working to prevent impingement with good shoulder and upper back exercises, you may end up with significant pain,” explained Moser. “This is no different than if someone decides to paint his entire house who has never done it before. If you paint over and over, that will impinge the shoulder. If you are untrained, or aren’t doing enough ballroom dance and come in cold, you’re probably going to have an impingement shoulder issue.”

Finally, what about the senior citizen dancer? The dancer with immediate shoulder pain may have a 70-year-old rotator cuff with a partial tear. Or the shoulder may be arthritic, or there may be some neck arthritis that started long before and progressed over time. “I think the older dancer needs to understand that the pain is not just because she’s dancing more. She needs to get specificity of the diagnosis so we can treat it better,” explained Moser. That may mean, for example, an injection in the arthritic shoulder joint.

Dance Medicine: Teaching Healthy Decision-Making

A large component of dance medicine is helping dancers make educated, difficult decisions specific to their dance lives, based on expert resources, specialists, and experience with outcomes. In dance, peer pressure can be great and loss of job huge, since a sidelined dancer isn’t usually paid. Dance medicine providers help broaden the options. Said Moser, “You need to help us help you. If you trust us, we’ll get you there.” John tells her clients, “You have to advocate for yourself. You are the only one who knows how you feel.”

Moser shared examples from his practice. An exceptional Twin Cities high school ballet dancer received a scholarship to a prestigious New York City ballet school. However, he was experiencing serious pain issues with his ankles, restricting his range of motion. X-rays revealed two large bones in the back of his ankles. Moser determined that unless the bones were removed, he would continue to have

pain and restriction. What should he do? Moser helped him decide to remove the bones, despite loss of recovery time. The student asked the school to defer his admission for a year, with the doctor’s assurance that he would come back pain free and better. The school agreed. Today, the young man is still a professional dancer in New York City.

A similar story occurred with a New York City ballerina from the Twin Cities. She had a big toe problem and a bone needed to be removed. With advice from Moser and colleagues, she informed the NYC ballet that she would have surgery, but she would come back, and they shouldn’t worry about her recovery. With six months of rehabilitation she returned pain free, and worked back to her previous level of dance.

“This is another example of understanding where the dancer is going, where they are in their career, and making sure they are getting to where they want to go through specific procedures or little surgeries to get them there,” said Moser.

There is so much more to dance medicine. While this article focuses on prevention and response to physical injury, there are other components to help dancers prevent injuries and support their bodies, mental health and nutrition. Next month’s article will focus on specific strategies and resources to enable dancers of all genres, ages, and abilities to “Dance Healthy,” the mission of the Minnesota Dance Medicine Foundation.

*Ember Reichgott Junge is an amateur ballroom dancer who has experienced her share of physical therapy for dance pains. Send her your ideas for inspiring stories for her book-in-progress, *Stories of Resilience from the Ballroom Dancer’s Heart*, at ember.reichgott@gmail.com. **E***



Physical Therapist Dr. Megin Sabo John draws upon her experience as a classical ballet dancer and aerialist in her practice of dance medicine. Photo provided by Dr. Megin Sabo John.



Dr. Megin Sabo John

Dr. Megin Sabo John is a Doctor of Physical Therapy and Orthopedic Clinical Specialist who practices at Twin Cities Orthopedics in Eagan. As physical therapist for Olympic Gold Medalist Suni Lee, she recently became a USA Gymnastics medical provider. After graduating from the University of Oregon, she received her Doctor of Physical Therapy Degree from University of Mary in Bismark, North Dakota. She is also a board-certified massage therapist.

Dr. John specializes in dance medicine and performing arts medicine. She has worked as a massage or physical therapist with professional dancers from the Oregon Ballet Theatre and Pittsburgh Ballet Theatre, and has been lead therapist since 2013 for the James Sewell Ballet in Minneapolis.

As a dancer or dance performer for more than 25 years, she has danced ballet and modern dance, traditional African dance, Lindy Hop swing dancing, and various circus arts, including aerial. She is a board director of the Minnesota Dance Medicine Foundation.



Dr. Brad Moser

Dr. Brad Moser is a family medicine-trained physician with a sports medicine specialty certification, who practices with Twin Cities Orthopedics in Edina. He is the team physician for multiple professional, college and high school sports teams, and has attended 35+ international trips or camps for the United States Men's and Women's National Soccer Teams. He attended Ross University School of Medicine in New York, did his residency at Regions Hospital, St. Paul, and was a fellow in Sports Medicine at Hennepin County Medical Center, Minneapolis.

Dr. Moser is a specialist in dance medicine and performing arts medicine. He is Medical Consultant for Cirque Du Soleil and the touring Broadway shows of Lion King, Wicked, West Side Story, and Radio City Rockettes. He is Founder and Board Director of the Minnesota Dance Medicine Foundation.

Dr. Moser says he is "a musician at heart." He was trained as a classical pianist at a young age. During medical school he started salsa dancing with friends in New York clubs, and continued salsa dancing in the Twin Cities.