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# dance dance REVOLUTION

How ATs are Making a Difference for Athletes in the World of Dance Medicine

by: Jaimie Siegle

**i**n the basement of Manhattan's Dance Theatre of Harlem, a handful of dancers file in to Alison Deleget's cozy athletic training room, tightly seated shoulder to shoulder as they wait for their turn on the treatment table.

"My ankle's stuck," one dancer says, shaking her foot. Deleget, MS, ATC, works slowly and calmly, applying pressure to the areas in and around the joint. "That's it!" the dancer exclaims, letting out a sigh of relief. Since there's no athletic trainer traveling with the company, Deleget educates the dancers as she works on them, offering suggestions for modifying their movements during rehearsal and instructions for Kinesio taping and rehab exercises. Most recently, Deleget hosted a lab for DTH company dancers on proper taping technique so they can care for themselves properly while on the road.

The dancers are clearly comfortable with Deleget, joking and talking almost as if she's one of them; and in a lot of ways, the dancer-turned-athletic trainer is. Deleget once was a ballet dancer plagued with an injury that wouldn't go away. "Previously I'd sought out general medical doctors and physical therapists, but I was met with frustration because they weren't addressing my needs as a dancer," she said.

It wasn't until her freshman year at Indiana University when she encountered her first experience with an athletic trainer. IU's athletic training program director John Shrader, ATC, had just launched a treatment program for the ballet department. Deleget recalls meeting with Shrader for treatments a few times a week, and that someone was assessing her injury from a sport-specific point-of-view. He studied her movements and motions, and together

they deconstructed a pair of pointe shoes to see how they could be affecting her ankle.

"He could see what I was doing [to perpetuate] the injury," Deleget recalls. "As a patient, athletic training piqued my interest because it was the first time someone was coming to me to address my needs as a dancer as opposed to my needs as an average person," she said. Most importantly, after multiple sessions with Shrader, Deleget's injury started to heal.

In the world of dance medicine, more often than not, injuries are either stress-related or a result of overuse. "Traditionally, a sports doctor unfamiliar with the nuances of the dance world may give advice such as, 'take two weeks off,'" she says. "But there's immense fear associated with not being able to dance, so you just can't tell a dancer that; you need to understand the biopsychosocial aspects of the dancer's mindset and workplace."

Unlike the world of professional sports in which athletes learn an adequate living, most aspiring pre-professional and professional dancers in New York City cannot live off dance income alone. "They're scrambling to make ends meet, often working a second job where they're on their feet all day and night, which presents unique challenges for this population," Deleget explained. "Dancers and small dance companies don't have the disposable income to provide access to doctors, clinics and health care, which is why Harkness has a mission to turn no dancer away because of inability to pay."

Immediately after earning her bachelor's degree in dance, Deleget stayed at IU to complete her bachelor's and master's degrees in athletic training,

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Alison Deleget, MS, ATC, manages a dancer's injury before practice at the Dance Theatre of Harlem.  
Photo by Jordan Grantham/NATA

working as a graduate assistant with Shrader and the ballet department before she eventually wound up at the Harkness Center for Dance Injuries, a department of the NYU Langone Medical Center's Hospital for Joint Diseases that caters to the performing arts community, from recreational dancers and freelancers to companies, schools and professionals on Broadway.

Celebrating its 25th anniversary this month, the Harkness Center for Dance Injuries offers athletic training and physical therapy services to dancers and dance companies in New York City and the surrounding areas. The education department of Harkness provides continuing education courses and workshops related to dance medicine, and the research arm of Harkness is led by Director Marijeanne Liederbach, ATC, PhD. A veteran athletic trainer in the performing arts setting since the 1980s, Liederbach has watched how dance medicine has evolved over the years, and has noticed the growing market for ATs with skills in clinical dance medicine, research and preventive health care.

"More institutions are seeing the cost containment opportunity in helping dancers proactively, and the need for skilled prehab, triage and rehab care," Liederbach said. "Because dance has evolved under an artistic rather than scientific culture, many principles of modern conditioning – periodization, specificity, overland and overtraining – are still overlooked in the dance community."

Most recently, Liederbach's focus with her AT team at Harkness is research in epidemiology, biomechanics and outcomes. Most recently, they published the results of a prospective study in the American Journal of Sports Medicine on the occurrence of ACL injuries in dancers and athletes, which suggested that dancers experience far fewer ACL injuries than other athletes. They also found that no

sex disparity existed in ACL injury occurrence between male and female dancers.

Comparing the biomechanics jump and landing patterns of 40 dancers with 40 athletes, they found not only did dancers seemed to land more safely than athletes, it also took longer for their muscles to fatigue – an unexpected finding that could inform training and prevention strategies to reduce ACL injury risk. "What we're learning about dancers is generalizable for athletes and all active persons to make landing activity safer," Liederbach said.

Despite a low employee turnover rate at Harkness in particular, both Liederbach and Deleget said health care opportunities within the performing arts industry should only continue to grow. "Dance medicine is really growing," Deleget explained. "Dancers are getting more savvy about having good health care."

Deleget said at Dance Theatre of Harlem, she sees about 65 percent overuse injuries – stress fractures, hip joint position faults, tendonopathies – compared to 35 percent acute injuries. Still, Liederbach said the skill set required to work with dancers is diverse. "You have to be a good general specialist as an athletic trainer because you see everything," Liederbach said, from concussions and sprains to sometimes kooky dance-specific injuries. "My most memorable emergency injury was that of a dancer who did such a high kick she fractured her nose!" she laughed.

As for opportunities in the dance setting, Liederbach said Harkness launched its first AT affiliation offering this month, and will launch a dance and physical therapy residency program next Fall. At IU, Shrader recently added a graduate assistantship for the modern dance department in addition to ballet. "Performing arts clinical rotations are becoming more prevalent, but not extensively so yet," Liederbach said.



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Deleget said the best way for active and future ATs to get involved in the performing arts setting is to learn from those already experienced in the field and to be entrepreneurial. "Learn from established experts, be innovative and make those connections, especially if there's a dance department or cheerleading squad that may have been left out of the traditional sports model," she said. "If you know what you're doing, dancers are a really appreciative audience." §