Brigham Young University (BYU) is home to the largest dance program of any university in the United States. The Dance Department is composed of four divisions: ballet, ballroom dance, folk dance, and modern dance. Performance teams are sponsored by each of these divisions, and the department also sponsors the Cougarettes dance team, a precision and jazz performing group. These groups tour, perform, and compete throughout the world.

As described in the Brigham Young University catalog (BYU, 2001), “Dance is an art form expressed and communicated through human movement.” With the types of movement involved in dance, the body is obviously subjected to stress that can result in both acute and chronic injuries similar to those seen in more traditional athletic activities.

For athletic trainers and therapists who might treat dancers, it is important to understand the types of injuries that are likely to occur. In our experience, the vast majority of the dancers’ complaints were strain or sprain types of injury. There were also, however, several incidents of metatarsal and metatarsophalangeal bruising. Fractures of toes, metatarsals, and ankles, as well as stress fractures of the lower leg, were fairly common. Several incidents of meniscal tears in the knee were observed, and, as would be expected, most of the injuries were to the lower extremities. Ankle sprains and low back strains were the two most commonly treated problems with the dancers. There were many incidents of medial tibial stress syndrome, anterior tibialis inflammation, Achilles tendinitis, groin strains, hamstring strains, arch strains and plantar fasciitis, patellofemoral syndrome, piriformis syndrome, and sprained toes. Surprisingly, there was a relatively high number of upper extremity injuries including wrist sprains and strains, rotator-cuff strains, shoulder impingements, rib fractures, trapezius strains, and
strained rhomboids. The upper extremity injuries were much more common in the men because of the partner lifts involved in their dancing.

The significant number of injured dancers being treated by the athletic training staff led to discussions of constructing a dedicated facility for the prevention, assessment, treatment, and rehabilitation of dance injuries. By having a dance-medicine facility, access could be expanded to include not only the approximately 150 performance-team dancers but also the nearly 250 students on beginning performance teams and about 200 dance majors, as well. A dance-medicine facility would allow the dancers to receive treatment in a facility that was designed to meet their specific needs. In addition, the dancers would be more comfortable in such an environment than when sharing a facility with intercollegiate athletes.

It was also desired that a location for the dance-medicine facility be found in closer proximity to the other dance facilities in the physical education building. (Though not far from the physical education building, the intercollegiate athletic training room used by the dancers is in a field house, across a courtyard and at the opposite end of the building from the dance facilities.)

After much discussion and brainstorming, a proposal was developed that would convert four storage rooms in the dance areas into a new dance-medicine facility. The storage rooms were being used for costumes and props of the dance-performance groups. The plan called for these costumes to be stored in an off-site warehouse.

The proposed idea for a dance-medicine facility was approved by the dean of the College of Health and Human Performance, as well as the university's Space Utilization Department, Planning, and the President's Council. Subsequently, plans for the facility were drawn up, with input from the chairman of the Dance Department, dance faculty, the athletic training program director, the head athletic trainer, and other athletic trainers.

By removing the walls that separated the four storage rooms, the proposed area will be opened up to a nearly 2,200-square-foot facility. At one end of the storage rooms are two restrooms. Hallway access to these restrooms will be eliminated, and the area will be remodeled to convert them to changing areas for the dance-medicine facility. Lockers and showers will be added, and the bathroom fixtures will be replaced. Plumbing for the dance-medicine facility will be tapped into from this area. New water and drain lines will be run to the hydrotherapy room and the exam room. In addition, sprinkler lines will be run in the ceiling for fire protection.

At the opposite end of the storage rooms, there are currently two overhead garage doors. Those doors will be removed and replaced with mirrored-glass windows with a single emergency exit to the outside. New landscaping will be added to the outside of the building in this area. There will be heating, ventilation, and cooling lines that are linked from the existing systems of the building. A new and separate ventilation system will be added for the hydrotherapy room, which will be glass walled on three sides to allow for visual observation of the area by the athletic training staff. Ground-fault-interrupter circuits will be added for the hydrotherapy room, as well as in the changing areas and the exam room. Six electrical floor boxes will be added in the treatment and therapy areas to allow for more accessible connections for therapeutic equipment. New lines will be run for computer, cable TV, and IP phone connections. An office will be constructed for the certified athletic trainer, as well as a workstation for student athletic trainers. A new suspended-panel ceiling will be added throughout the facility. In addition, as part of the remodeling, seismic bracing will be added. A floor plan of the dance-medicine facility is shown in Figure 1.

Equipment for the dance-medicine facility will be substantial, thanks in large part to a very generous donation by the spouse of a former dance instructor. The facility will be much more than an athletic training room with mirrors and dance rails. Several new modalities will be purchased, as well as a compression unit. The facility will have its own ice machine. Rehabilitation equipment will include an elliptical trainer, a step machine, a treadmill, and an exercise bike. A resistance weight machine, as well as a unique stretch-station machine, will also be purchased. The exam room will be adequately equipped for a physician, chiropractor, or other health professional to assess, treat, and counsel the dancers. The Dance Department currently has three Pilates tables. No additional Pilates equipment is included on the initial equipment list for the facility, but future acquisitions are planned. A complete list of new equipment for the