
FIVE WORDS I NEED TO KNOW FROM MY RESEARCH ARE...

1)Word: Injury

Definition:

Harm or damage that has been done.

Website Address (copy URL from definition website exactly – No ‘Google Search’):

<https://www.dictionary.com/browse/injury>

2)Word: Dancer

Definition:

A person who performs a series of movements on stage.

Website Address (copy URL from definition website exactly – No ‘Google Search’):

<https://www.dictionary.com/browse/dancer>

3)Word: stretch

Definition:

To extend or spread out.

Website Address (copy URL from definition website exactly – No ‘Google Search’):

<https://www.dictionary.com/browse/stretch>

4)Word: Splits

Definition:

The position of your legs facing in the opposite direction.

Website Address (copy URL from definition website exactly – No ‘Google Search’):

<https://www.dictionary.com/browse/splits>

5)Word: Prevent

Definition:

To stop something in the future.

Website Address (copy URL from definition website exactly – No ‘Google Search’):

<https://www.dictionary.com/browse/prevent>

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"Injury Prevention Series Dance." *Boston Children's Hospital Orthopedics and Sports Medicine*, 17 Sept. 2023, www.childrenshospital.org/sites/default/files/2022-04/Injury-Prevention-Dance.pdf. Accessed 16 Sept. 2023.

"The Benefits of Stretching." *Physical Therapy and Rehab*, 17 Sept. 2023, www.strengthtrainingrehab.com/stretching-prevent-injury-body/. Accessed 17 Aug. 2023.

"The 6 Main Causes Of Dance Injuries." *Sports Injury Clinic*, 17 Sept. 2023, www.sportsinjuryclinic.net/sport-injuries/sports-injury-prevention/6-causes-dance-injuries. Accessed 5 Sept. 2023.

"The Most Common Dance Related Injuries." *The Pediatric Orthopedic Center*, 17 Sept. 2023, pediatricorthopedics.com/the-most-common-dance-related-injuries/. Accessed 16 Sept. 2023.

"Why Do Dancers Push Through Pain Even When They Know It's Bad for Them?" *Dance Magazine*, 17 Sept. 2023, www.dancemagazine.com/ignoring-injury/. Accessed 16 Sept. 2023.

Essay

My science fair project is about when dancers get hurt from improper stretching. I plan on creating a piece of stretching equipment to prevent dancers from getting hurt while stretching. Three topics I researched for my project are; How dancers get hurt, why dancers get hurt the most and what is the motion for dancers to get hurt.

There are many ways that dancers are at risk for getting hurt. According to Neuro Sport Neuro Tour, "Performing repetitive movements for hours a day coupled with a low amount of recovery time in between shows, increases the performer's risk for chronic overuse injuries (in addition to the ever-present risk of an acute injury)." ("7 Common Dance Injuries (and How to Prevent Them)") Boston Children's Hospital states "160,00 people were treated for dance related injuries."("Injury Prevention Series Dance") Repetitive movements are a risk of injuries like ankle sprains, torn muscles and strains and dancers do repetitive moments so they are always at risk of injury. Stretching is very important for dancers because not stretching can cause even more pain and suffering. Most of the time dancers have to perform while injured or in serious pain which can lead to serious injuries. According to Strength Training Rehab some benefits of stretching are

increased range of motion and better circulation. "By stretching, you can directly improve your performance. Lifting, bending and running get a little easier when you've prioritized your range of motion. Flexibility exercises loosen up your active muscles, freeing your body to achieve more positions. A good stretch also increases blood flow to your muscles. Blood delivers nourishing nutrients, too, which promote long-term growth. Plus, it removes waste byproducts inside your muscle tissue."("The Benefits of Stretching")

Repetitive movements are a major risk factor for dancers getting hurt. The reason why dancers get hurt the most is because dancers are constantly doing repetitive movements that can cause serious injuries. "Statistics show that 80 percent of dancers incur at least one injury a year that affects their ability to perform. Compare this to a 20 percent injury rate for rugby or football players. Whilst not a contact sport or explicitly high-impact, dance training is very intensive."("The 6 Main Causes of Dance Injuries") Specifically in ballet, stress fractures and tendonitis are common injuries. "Dancers who are going through puberty may experience issues because of their rapidly changing bodies."("Common Ballet Injuries in Adolescents and Teens") Dancers have such a short career so when they get injured they keep dancing because they are afraid they are going to get behind or lose a job. ("Why Do Dancers Push Through Pain Even When They Know It's Bad for Them?")

Most dance injuries can be found in the lower back, foot and ankle. The most common places to find injuries for dancers are in the ankle, lower back, foot and leg because of the repetitive movements in those areas. ("Common Dance Injuries and Prevention Tips") Research done by Grand Canyon University shows common lower body dance injuries such as hip impingement, Sacroiliac (SI) joint dysfunction, Cartilage tears, snapping hip syndrome, and shin splints. Foot and ankle injuries are ankle sprains, Achilles tendonitis, Trigger Toe and Dancer's Fracture. ("Common Dance Injuries and Prevention Tips") In New Jersey at The Pediatric Orthopedic Center "The most common dance injuries they see are overuse injuries of the lower extremity injuries and lower back injuries. Common foot and ankle injuries in dance are ankle sprains, stress fractures of the feet and shins, Achilles tendonitis (inflammation of the Achilles tendon due to overuse), and knee pain from turning, twisting, and landing."("The Most Common Dance Related Injuries")

Three facts I learned while researching are common places to find dance injuries are in the lower back, foot, leg and ankle. Dancers are always at risk for injury because of the repetitive movements they do. When dancers get hurt they tend to not stop because of fear of losing their job. This is important for my project because the equipment designed to help stretch and prevent injury can focus on the areas that are most at risk.