DANCE RELATED INJURIES

MODULE 2

- An Injury is tissue or organ damage due to mechanical trauma.
- The Musculoskeletal structures commonly injured in a dancer are the muscle, tendons, ligaments, bones and joints.
- These structure are designed to absorb impact but due a sudden change in the program or a poorly performed technique, structures can handle.
- According to studies, more and more adolescent dancers are getting injured.

The following factors are common among dancers who have injury:

1. Poor body alignment and Technique

- The anatomical alignment and technique of the dancer are some of the intrinsic factors that are commonly associated with injury.
- Dance requires moving the limbs in a controlled and precise manner.
- These movements are anchored to the trunk, which means that the trunk should be stable and the spine are aligned properly.

2. Excessive training duration and intensity

- Excessive training and limited recovery impairs the ability to heal and repair damaged tissues.
- Intense technique training will most likely lead to microscopic injury to the musculoskeletal structures due to repetitive loading.
- Without proper rest and sufficient nutrition, the body is not able to rebuild the tissues and this predisposes the dancer to a severe injury.

3. Hard dance floor

- The floor is where the dancers rehearse and perform
- An optimal dance floor should be able to absorb the impact that is generated by the performer.
- A hard dance floor does not help in dissipating the impact and returns the force to the dancer.
- The repetitive shock absorbed by the foot would eventually damage the foot or other parts of the lower extremity.

4.Poor shoe design

- Footwear is able to correct foot mechanics and reduce the impact on the foot.
- A shoe that does not fit properly or has insufficient shock absorption will significantly contribute to injury risk.

5. Muscle Imbalance

- Is an uncoordinated muscle action because of uneven strength between muscle groups.
- This attributed to various factors such as anatomy, technique and past injury

2 Types of Musculoskeletal Injuries

1. ***Acute injuries*** occur when the mechanical force that is absorbed by the musculoskeletal structure is more than what it is accustomed to. The onset of pain and other symptoms occur immediately after the impact.
2. ***Chronic injuries*** occur due to repetitive trauma and the body is not given enough time to recover. The onset of pain and other symptoms occur at a gradual rate, which is usually worsened with activity or training.

Common Acute Dance-related injuries

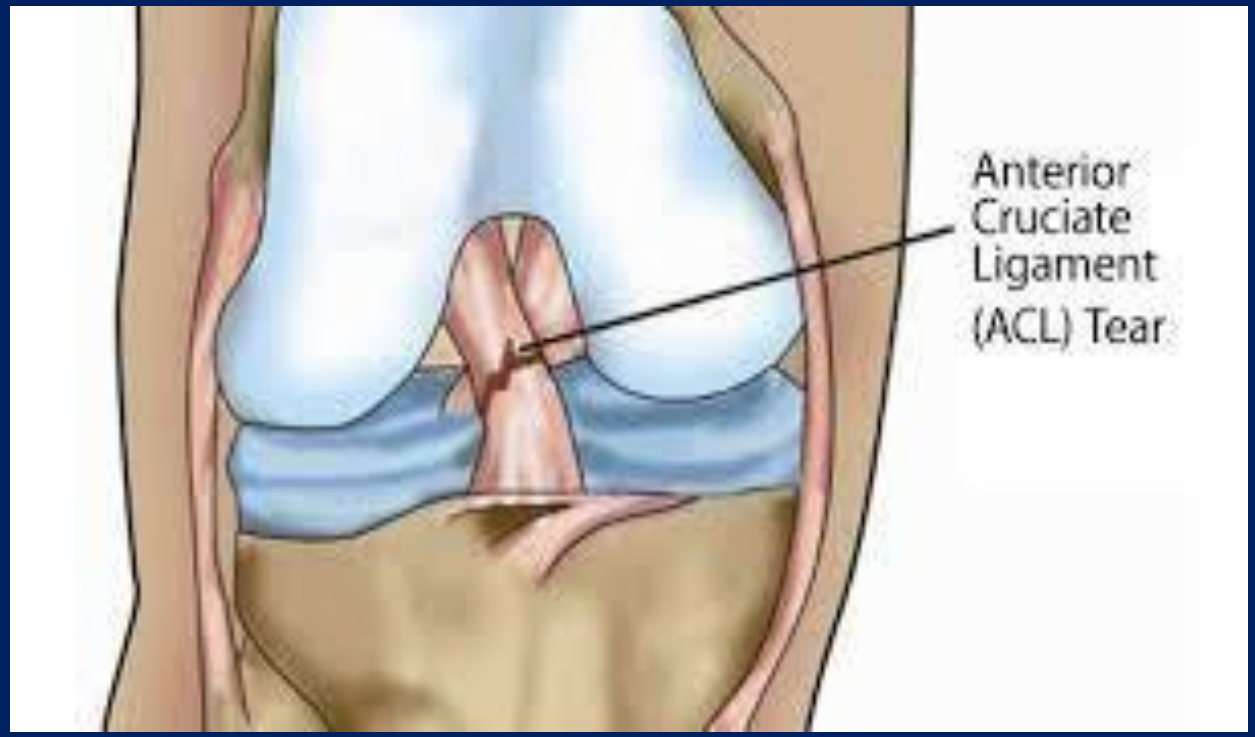
Types of injury	Cause	Symptom	Prevention
Ankle Sprain	Twists the ankle after a jump	Pain at the side of the ankle	Exercises that strengthen the anle and improve balance
Dancers Fracture	Twists the foot when turning	Pain at the outer part of the foot	Exercises that strengthen the foot and improve balance
Back Strain	Sudden movement of the trunk	Pain and stiffness in the low back	Proper posture and technique
ACL tear	Twists the knee after a jump	Pain and weakness in the knee	Exercises that strengthen the knee and improve balance
Forearm Fracture	Falls on an outstretched arm	Pain and deformity near the wrist	Fall on the side or buttocks

1. Ankle Sprain

2.Dancers Fracture

3.Back Strain

4. ACL Tear (Anterior Cruciate Ligament)



5. Forearm Fracture

Common Chronic Dance-related injuries

Types of Injuries	Cause	Symptom	Prevention
Stress Fracture	Prolonged repetitive loading	Pain at the front of the leg (i.e. Shin)	Adequate rest
Achilles Tendonitis	Excessive Training	Pain near the heel in the morning	Adequate rest
Patellofemoral Pain Syndrome	Muscle imbalance	Pain at the side of the knee	Strengthening and flexibility exercises
Plantar fascidtis	Poor foot mechanics and hard dance floor	Pain at the sole when they take a step after sleeping	Proper technique and footwear
Hip and Knee Osteoarthritis	Prolonged repetitive loading	Pain that worsens over time	Adequate rest

1. Stress Fracture

2. Achilles Tendinosis

3. Patellofemoral Pain Syndrome

4. Plantar Fascidtis

5. Hip and Knee Osteoarthritis

What are the some strategies that could reduce injury risk?

1. Programmed exercise and training

- It has been reported that dancers are not as physically as other types of athletes. Moreover, several studies reported poor cardiovascular endurance increases the risk of dance-related injuries (Angioi.,2009)
- Most injuries occurs as fatigue sets.
- A dance training session is commonly divided into warm- up, technique training, choreography and cool down

2.Adequate recovery

- Recovery is important phase of training because it is the period wherein the body repairs and rebuilds itself.
- Without the proper recovery, the body will be weak and fatigue easily, which predisposes the dancer to injury
- These are two key factors to effective recovery: Nutrition and Rest.

3. Appropriate Environment

- A suspended floor is a floor designed to absorb the impact when dancing or jumping.
- It is able to accommodate the force because it has dense foam block between the wood and concrete.
- Floor should be maintained and not slippery.
- Dancers prefer a training facility or performance center that is a bit warm because it helps them in their warm-up and prepare them psychologically

4. Proper Footwear

- Shoes protect the lower extremities from injury by reducing the impact when dancing.
- Shoes have the ability to correct overpronation of the foo, which has been linked to plantar fascidtis and fat pad contutions.

5. Proper warm-up and technique

- Dance movements require a great degree of flexibility
- Proper warm- up helps improve flexibility before dance training or performance
- It is important for beginners to learn the proper technique to maximize the risk of straining the muscles.

6. Cross training

- Is a type of physical training that is different from what is usually performed.
- It helps to maintain physical fitness but it minimizes the mental stress that is associated with dancing.

7. Early recognition

- Pain is the good indicator that there is damage to the tissue. However, dancers and athletes tend to have a high tolerance for pain. Moreover, they associate pain with improvement and part of training
- This can be avoided if the dancer recognizes the pain early and seeks medical advice.

Thank You & Keep Safe!

Prepared by: Ms. Kio Mae D. Marvida