



Virtual Learning

Jumping and landing techniques in sports

Biomechanics of Sports

5/6/2020



Lesson: 5/6/2020

Objective/Learning Target:

1. The student will learn about the jumping and landing techniques in sports.

Case Study Scenario - Volleyball Jump/Landing

Volleyball has become one of the most widely played participant sports in the world.

Participation requires expertise in many physical skills and performance is often dependent on an individual's ability to jump and land.



Case Study Scenario - Volleyball Jump/Landing

The incidence of injury in volleyball is nearly equivalent to injury rates reported for ice hockey and soccer.

Most injuries in volleyball occur during the jump landing sequence, but few data exist regarding jump landing techniques for elite female players.



Critical Thinking Questions

How many jumps on average does a player take?

Are these non-contact jumps and landings?

Does the athlete land on one foot, two feet, or in opposite directions?

Which foot is more prevalent in landing? Dominant or Non-Dominant?

Case Study Findings

The case study findings of a small sample size found that one average in a match, players take 22 jumps per match.

In those findings, nearly 50% of the defensive jumps ending in one foot landings.



Conclusion

Though small sample size of only four matches in this case study, it may not be concluded that all Volleyball matches pose the same results.

It can however be noted that all coaches in the sport of Volleyball can promote healthy and safe landing practices with their players to influence better landing techniques to prevent potential injuries.