Biomechanical Mechanisms of Soft Tissue Deformation during the Volleyball Spike

Status: Recruiting

Eligibility Criteria

Sex: Male or Female
Age Group: 18 years and over
This study is also accepting healthy volunteers

Inclusion Criteria:

- 18 to 35 years old - played at least 2 years of high school varsity-level volleyball and/or play competitive volleyball at the club level or NCAA D3/NAIA level or above - have no shoulder pain that has resulted in removal from, or cessation of volleyball participation in the past 6 months - have a negative clinical screening exam - fluent in English

Exclusion Criteria:

- any injuries, impairments, or pain of the hitting arm that limits participation in volleyball - shoulder pain related to the cervical spine - history of trauma and/or surgery of the hitting shoulder - currently pregnant.

Conditions & Interventions

Conditions:
Bone, Joint & Muscle
Keywords:
Volleyball, athlete, shoulder, spike mechanics

More Information

Description: No current studies have examined in vivo glenohumeral kinematics during the overhead volleyball spike despite the high prevalence of spike-related shoulder pain. The extreme shoulder positions achieved by volleyball players during the spike motion may contribute to unique deformations that could result in structural change or pathology of the rotator cuff and long head biceps tendons. The purpose of this study is to determine the extent to which GH kinematics differ between SAB and a simulated volleyball spike at a self-selected position of ball contact.
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