

The aim of this study was to analyze the characteristics of external shoulder rotation during pitchingshoulder external rotation during pitching in in 13 female university baseball players. ~~The subjects were 13 female university baseball players.~~ Three-dimensional motion analysis was performed to obtain the ~~maximal~~ external rotation (ER) angle of the glenohumeral joint and the posterior tilt angle of the scapula at maximal external rotation (MER) of shoulder complex. ~~angle of the shoulder complex during pitching, the glenohumeral joint external rotation angle during MER, and the scapular posterior tilt angle during MER.~~ The mean MER angle was 131.0 ± 9.3 degrees. The mean glenohumeral joint external rotation angle and during MER was 90.6 ± 11.4 degrees. ~~The mean~~ scapular posterior tilt angle during at MER was 90.6 ± 11.4 and 37.1 ± 5.2 degrees, respectively.

In this study, ~~the~~ MER angle and glenohumeral joint external rotation angle ~~of in~~ female baseball players ~~in this study~~ were smaller than the reported angles in male baseball players by Miyashita et al. (2008). Conversely, the scapular posterior tilt angles of female the subjects in this study was were larger than the angles observed in male players in the same previous study. Our hypothesis is that the high flexibility, which is specific to females, does not reflect the shoulder external rotation angle during pitching. ~~In the meantime,~~ Meanwhile, the scapular posterior tilt angle was large, and sex differences were observed in the componentseomposition of ~~shoulder~~ external shoulder rotation during pitching.

Comment [Editor1]: [Level 5]

[Consistency][LAN]

The grammatical edit was made to ensure consistency in the file

Comment [Editor2]: [Level 5]

[Other language][LAN]

The sentences have been clubbed together to avoid redundancy

Comment [Editor3]: [Level 5]

[Singular-Plural][GRA]

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[Subject-Verb Agreement][GRA]

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[Word choice][LAN]