

1135-B1-409

John Mayberry* (jmayberry@pacific.edu), 3601 Pacific Ave, Stockton, CA 95211. *What can a jump tell us about a pitcher?*

Force plate testing is commonly used by trainers to monitor athlete strength and health. For example, ground reaction forces during a counter-movement jump (CMJ) test can provide information about movement deficiencies which can in turn be addressed through prescribed exercise plans. In this talk, we will discuss two surprising links between CMJ testing and baseball pitcher wellness. First, we establish a link between CMJ and UCL strains which in worst case scenarios can lead to Tommy John Surgery. In particular, pitchers who rely too much or too little on impulse momentum compared to force production during CMJ are three times as likely to sustain elbow injuries compared to players with more balanced profiles. Second, we provide evidence of a correlation between CMJ measurements and Field Independent Pitching (FIP) in a sample of college pitchers. Combined, these results suggest that CMJ monitoring is a useful tool for tracking pitcher development and ability. (Received August 31, 2017)