

Proper Pitching/Throwing Mechanics

Throwing Motion

1. Windup: Body rotates away from home plate and pitcher has ball in hand.
2. Early cocking: Throwing arm goes back. Stance opens.
3. Late cocking: Trunk rotates forward. Shoulder reaches maximum external rotation.
4. Acceleration: Shoulder comes forward and internally rotates. Trunk flexes.
5. Deceleration: After ball release. Ends when arm reaches 0 degrees of internal rotation.
6. Follow-through: Passive phase. Throwing arm crosses in front of pitcher's body.

Most injuries occur in late cocking and acceleration phases.

- The amount of external rotation (which is at max in late cocking) correlates with the speed of the ball, and these are the moments where stresses on the shoulder and elbow are highest.