

Basic Mechanics of Striking (with the hand)

- Start from a standing position facing the direction of the approaching ball with the feet shoulder width apart.
- The phases are for a right handed striker. Everything would be opposite for a left handed thrower.

Preparation Phase

- Step back with the right foot to create a comfortable side straddled position, opening the hips to follow a straight line to the direction of the strike.
- The majority of the weight will be towards the right foot.
- The right leg is slightly bent and the muscles contracted to create a stable base.
- The left leg is braced to maintain stability.
- The right arm/hand is extended or abducted at the shoulder joint to 90 degrees with the elbow fully extended. The arm will be parallel to the floor.
- Rotate the trunk away from the direction of the incoming ball to create a force arc as long as possible.
- Abduct the left arm at the shoulder joint to 90 degrees and keep the elbow extended. The arm will be parallel to the floor.
- The head is rotated to the left to view the incoming ball.

Force Producing Phase

- The right foot: push off and pivot on the ball of the foot allowing the knee to face the direction of the ball.
- The right hip internally rotates to allow the hips to face the direction of the incoming ball.
- Step forward with the left foot just slightly to the left of the midline of the body. Make sure the left foot is pointing in the direction of the incoming ball, and balance is maintained.
- With the step of the left foot, the center of gravity shifts forward creating forward momentum.
- Rotate the torso and shoulders to the left.
- Keep the right arm (striking arm) as far back for as long as possible.
- As the tracking of the ball comes closer to the point of contact, swing the right arm forward (horizontally abduct). Keep the elbow slightly flexed.
- At the same time, sweep the left arm (horizontally adduct) across the front of the body. Be sure to put the chest muscles on stretch.
- The timing of the swing of the striking arm is critical to the success of an effective strike.

- Summate the involved levers (foot, leg, thigh, hips, torso, shoulders, arms, hand) smoothly, and in sequence, to generate as much force as possible.
- The muscles of each body part “lock” in place one after the other, such that the body is a solid contracted muscle line leading to the contact with the ball (critical instant).

Critical Instant

- A strong plant of the left foot creates a stable point for all the forces created by the body during the, ‘Force Producing Phase’, to base off of.
- The center of gravity has shifted forward toward the left foot.
- The muscles of the right and left leg are contracted and braced at the critical instant, when the hand contacts the ball.
- Maximum speed of hip and torso rotation, and maximum bat velocity, have been achieved.
- The strike of the ball is made at the ‘center of the arc’ of the entire swinging motion of the arms. The hand is moving the fastest at the center of the arc.
- If the hand is stopped immediately after contact with the ball (critical instant), the hand will have had to slow down well before contact is made.
- The wrist joint remains perfectly straight with muscles tightly contracted to create a strong lever.
- The summing energy of the body’s movements culminates at the hand as the ball contacts it.
- The eyes are kept on the ball to ensure contact.
- The ball is contacted in line with the left foot and definitely before it gets past the body.

Follow Through/Recovery

- After the ball is contacted, the hand continues to complete the arc of the swing.
- Continue the rotation of the hips and torso (vertebrae).
- Continue the horizontal abduction of the right arm and flex the left elbow in tight to the body.