Unique Batting Footwork: The Stationary Slap Hit

Marion Alexander, PhD, University of Manitoba, Fall, 2017

Introduction

The slap hit in softball is a unique skill in which the player attempts to hit the ball while already running towards first base. The slap hit is performed by a left handed hitter, and the major advantage is that the player is already moving towards first base as the ball is being hit. This gives the batter a 1-2 step advantage in time over the infielders that are trying to field the ball, and she then has a good chance of beating the throw to first. The advantage is lost if the player bats right handed, so potential slap hitters are taught to hit left handed to take advantage of their speed. The good slap hitters are very fast and well coordinated to enable the player to time the hitting of the ball with the step towards first (Figure 9). The major advantage of the slap hit is that it provides an opportunity for a fast player to get on first without hitting the ball out of the infield.

The difficulty in learning the slap hit is to learn the footwork and timing required to contact the ball while moving rapidly forward. The footwork for the slap hit is difficult to master correctly and requires practice to time it with the pitch. The hitter must try and keep her shoulders square to the plate while her feet and hips are moving forward and swinging the bat forward. If she opens up her shoulders too soon she is more likely to pop up the ball. The player is essentially running through the hit in order to get a head start to first and possibly beat out the throw. Most good softball teams have a player or two who can correctly execute the running slap hit and manage to get on base on a regular basis.

Advantages of hitting from the wrong foot

The question then arises regarding the merits of the stationary slap hit. If the purpose of the slap hit is to hit the ball while running to first to enable a fast runner to beat out the throw, then the key to its effectiveness is to make contact while running to first. However, there may be some merit in the use of the stationary slap hit, or the execution of the slap hit footwork and then planting the front foot and making the hit from a planted left foot. The player is actually stationary at the time of the hit but the feet are reversed so that the left foot is in front of the right foot, which is opposite to that seen in a traditional batter. In essence the batter is hitting off the wrong foot, but this position does have some merits. Hitting off the wrong foot provides for a larger contribution from the trunk muscles during the swing, as they are placed in a position of greater stretch as the left foot moves forward while the arms and shoulders remain rotated backward. The step onto the left foot also places the anterior shoulder muscles (anterior deltoid, teres major, latissimus dorsi) on a greater stretch, potentially producing a faster and more powerful swing forward that occurs over a shorter time period.
Footwork for the Slap Hit

The correct footwork consists of starting with a regular left handed batting stance with the feet shoulder width or normally further apart (Figure 1). As the pitcher is delivering the ball, the batter will step back with her right foot so that it is just behind the left foot. Note that the batter maintains good flexion in the knees, hips and trunk and the bat is in a good ready position above shoulder level (Figure 2).

![Figure 1. Batting stance for the hit.](image1) ![Figure 2. Right leg slides backward to left](image2)

The weight is then shifted onto the left foot while the right foot slides backwards toward the back foot (Figure 3). The right foot moves backward to a position behind the heel of the left foot, and then becomes the weight bearing foot as all the weight is shifted onto this foot (Figure 4).

The batter then takes a step forward onto the left foot, which is a crossover step since she is stepping over the planted right foot to take this step (Figure 5). This should be a long step with the toes pointing forward towards the pitcher. As the step is taken onto the left foot the weight is shifted from the right foot to the left foot. The right foot then becomes unweighted and can no longer provide force for the impact with the ball (Figure 6).

In summary, there are 3 parts to the slap hitting footwork 2: 1: step back with the right foot; 2: forward crossover step onto the left foot 3: step toward first base with the right foot. This is the usual footwork used by slap hitters who attempt to hit the ball while running to first. In the present example, the hitter completes the first
two steps prior to contact, but the right foot remains planted until after the ball is hit.

The left foot crossover step forward is completed as the ball is about 2/3 of the distance to the plate (Figure 6). Although the step is completed, the arms and bat remain behind the trunk of the batter. This extreme position with the bat and shoulders behind the hips (pelvic girdle) of the batter, and the left foot in front of the trunk, places the anterior trunk muscles (external and internal oblique, rectus abdominus, transverse abdominus) on an extreme stretch. These large muscles can provide a substantial amount of muscle force due to chemical contraction, as well as from stored elastic energy from the extreme stretch on the muscle connective tissue, tendons and contractile elements.

Figure 3. The right foot is drawn back.  Figure 4. The right foot is planted close to left.
Figure 5. Weight taken onto the right foot while a cross step is taken onto the left foot and the weight is then shifted forward onto the front foot.

Figure 6. Long cross step taken onto the left foot with the toes pointing towards the pitcher. Bat starts to move down and forward as shoulders rotate forward.

**Body Position for the Slap Hit**

Note the extreme position assumed in Figure 6 with the hips (pelvic girdle) facing the oncoming ball, while the shoulder girdle (both shoulders and the connecting clavicles) and trunk is still facing the plate. This extreme position of segmented shoulder and hip rotation places the anterior trunk muscles on an extreme stretch and produce rapid and powerful rotation towards the ball. As well,
the leading right shoulder muscles are also placed on an extreme stretch, especially anterior deltoid, teres major, latissimus dorsi and teres minor. As these muscles are placed on an extreme stretch, there is a potential for a more powerful and forceful contraction as the bat is brought around to contact the ball. Note the bat lags well behind the hands during the shoulder girdle rotation phase of the skill (Figure 7), and when the trunk rotation is completed the bat is brought forward using wrist flexion and extension and lower arm rotation. When the shoulder muscles have completed their contraction and horizontal extension the bat is brought around to make contact with the ball (Figure 8).

Figure 7. Most of the weight is taken onto the left foot as the right foot is lifted and becomes unweighted. Shoulders have rotated from facing left to facing the oncoming ball while bat continues to trail the hands.
Figure 8. Ball about to contact the bat as left foot is planted with toe facing forward and right leg is almost completely unweighted but not moving forward.

Figure 9a and 9b. The ideal slap bunt with the ball contacting the bat as the player is starting her run to first base.
Running Slap Hit

A comparison of Figure 8 and Figure 9 illustrates the differences between the running slap hit and the stationary slap hit. In Figure 8 the ball is contacted while the feet are stationary and the player is not running forward, producing the stationary slap hit. In Figure 9 the player is in mid stride as she contacts the ball, so she will continue running through contact and after the ball is hit. This technique will provide her with a running start to first base, and will decrease the time it takes her to arrive at the bag. This should enable her to attain a faster time to first and a better chance to make it before the ball.

Figure 10. A running slap hit that was popped up due to lack of downward bat movement.

Technique of hitting from the wrong foot.

Hitting off the wrong foot in softball is similar to throwing off the wrong foot in terms of the mechanics and the body positions involved. Highly skilled athletes in several sports regularly hit or throw the ball from the wrong foot. Figure 11 illustrates a skilled right handed tennis player hitting from the right foot. This has allowed her a faster preparation time and a faster time to contact the ball. She has used a greater range of trunk and shoulder rotation, and a lesser range of hip rotation. The loss of ball speed at impact may occur, but it will not be significant.

In young or unskilled players who hit from the wrong foot they are often accused of "throwing like a girl", or throwing with limited trunk rotation with the throwing arm and the foot on the same side working together. This technique is often seen in younger less skilled players as seen in Figure 13.

Figure 15 illustrates the present batter leaving the batter's box following a stationary slap hit. She does not start running until the ball has left the bat and she has completed her swing. Following contact, she starts her run to first base. She is a fast runner who uses very good sprinting technique, with a full range of motion of the arms and legs (Figure 15-17).
Figure 11. Right handed tennis player hitting a shot off her right foot rather than the traditional left foot in front.

Figure 12. Ball has been hit and leaves the bat while feet remain planted in a stationary position. Batter is not running into the hit.
Stage 3  The distinctive pattern in stage 3 is the ipsilateral arm-leg action. The ball is placed into a throwing position above the shoulder by a vertical and posterior motion of the arm at the time that the ipsilateral leg is moving forward. This stage involves little or no rotation of the spine and hips in preparation for the throw. The follow-through phase includes flexion at the hip joint and some trunk rotation toward the side opposite the throwing arm.

Figure 13. Throwing from the wrong foot in younger athlete.

Figure 14. Ball has been hit part way to first base while feet remain planted in a stationary position. Batter is still not running into the hit.
Figure 15. Ball is moving toward first base as batter starts to run out of the box. Pushes off left foot as right knee drives forward.

Figure 16. Batter running out of the box but this occurs well after contact with the ball. Good left leg push off and right knee drive.
Advantages of the stationary slap hit

- Attain a greater range of trunk rotation from facing sideways to facing forward by keeping the hips facing forward
- Since the hips are facing forward due to the step onto the left foot, the trunk has to stay facing sideways to keep the bat in position
- Places the trunk muscles on a stretch and allows them to store more strain energy prior to the rotation into the hit
- Keeping the weight over the left foot allows the batter to lean over towards the plate. This position allows for a maximal length of the lever arms for rotation about the spine and the left hip
References

