

Rotation and Counter Rotation

The purpose of this document is to define batting swings and throwing motions by heel and hip rotation. I believe hitters and throwers should master both rotation and counter-rotational hip movements. In hitting it expands the hitting zone, in pitching it expands the strike zone, and in fielding it improves both throwing speed and accuracy. In previous documents I have used the terms “Windmill” and “Figure-eight” for describing these movements, but in this document I will focus on hip rotation. Compared to “Figure-eight”, “Windmill” uses an extra counter rotational hip movement. In hitting, for the same type comparison we “Turn-on” an inside pitch with rotation and we “keep the front shoulder in” or “hit it out of the catcher’s mitt” with both counter rotation and rotation.

Heels and Hips

Hip rotation principles are the same for both hitting and throwing. Because everybody knows a little about it, I begin describing these principles with hitting.

Counter Rotation

For example, when teaching someone how to throw with counter-rotation, I begin by describing how to hit a ball out of the catcher’s mitt. Hitting out of the mitt requires a counter rotation starting from the back or right heel. It is important to stay back on that heel during this rotation. We counter rotate to get the swing behind us. Because the swing (out of the catcher’s mitt) will start behind us, the rotation will start on the back heel and then naturally transition to the front heel. Also, because the swing starts behind us the hip rotation (off both heels) just keeps us lined up in the direction we want to hit the ball. In other words, our left or front shoulder stays in on the ball, and our shoulders are together so we finish like we are leaning into and pushing the ball. Same principles are true throwing (underhand or overhand) with a counter-rotation (Windmill). To get the swing behind us, counter rotate on the back heel. We stay back on the back heel until we are ready to extend. Begin the rotation on the back heel and continue it on the front heel. If we have lined ourselves with our target properly, our front left shoulder should stay on target throughout the throwing process. So, hitting out of the catcher’s mitt explains throwing with counter rotation (Windmill).

Rotation

For example: when teaching someone how to throw with rotation, I begin by describing how to “turn on an inside pitch”. Turning on a pitch means we hit the ball while facing it. It means we rotate on the right or back heel (without moving forward); keeping our hands back; and setting-up to pull the ball with an extending inside-out swing. Throwing or pitching with rotation (Figure-eight) uses the same principles: we face the direction of the pitch or hit, we rotate on the back heel without moving forward, we commit by extending inside-out off the toe to the hand in the direction of the target.

Common Principles

Notice: in all these swings (throws) we commit the swing with the extension into the direction we want to hit or throw the ball. We first use our toes when we extend, saving our toes for their turn in the process. Look again at the principles. They are the same except for the extra counter rotation. Like a chest pass in basketball, our fingers extend from inside out. That means that when our hands go by our side or head they are backwards (facing inside before they extend out). The more we twist them backwards, the more spin we will put on the ball when we extend. Plus: the power comes from the hips, and that accelerating power starts in the heels.

Summary: Rotation and Counter Rotation

The purpose of this document is to define batting swings and throwing motions by heel and hip rotation. I believe hitters and throwers should master both rotation and counter-rotational hip movements. In hitting it expands the hitting zone, in pitching it expands the strike zone, and in fielding it improves both throwing speed and accuracy. Compared to “Figure-eight”, “Windmill” uses an extra counter rotational hip movement. In hitting, for the same type comparison we “Turn-on” an inside pitch with rotation and we “keep the front shoulder in” or “hit it out of the catcher’s mitt” with both counter rotation and rotation. In all these swings (throws) we commit the swing with the extension into the direction we want to hit or throw the ball. We first use our toes when we extend, saving our toes for their turn in the process. Except for the extra counter rotation, the principles are the same. The power comes from the hip rotation, and that accelerating power starts in the heels.