

## Turning, Twisting, and Crunching

The purpose of this document is to define turning, twisting and crunching in relation to throwing and hitting in softball and baseball. To generate power by snapping the whip we twist or crunch. We turn to get the whip started, and make it release to the target with a nice follow through. Nice follow-throughs protect the arm.

### Here are the rules for a nice follow through:

How many ways do we turn? We turn both ways. How far do we turn? We turn all the way, both ways. When we turn all the way both ways, the final result depends on the way the feet are pointed and the position of the hand upon release. So, besides protecting our arm, turning till the body stops the turn tremendously improves accuracy. You can feel the stops and use them to control the whip.

### Here are the rules for snapping the whip with a nice follow through:

First, why do we twist and crunch? We twist and crunch to snap the whip. When do we twist to snap the whip? When pulling up inside-out, while turning. When do we crunch to snap the whip? When pushing down outside-in, while turning. When throwing with a nice safe follow through, because we can't go down and up at the same time, twisting and crunching do not mix, but we always turn both ways.

### Sidearm, the third way

There are three fundamental ways we need to learn to crack the whip when throwing or hitting, the third way is sidearm. Sidearm is used for special situations when we can't or do not want to step to the target. Do we turn in sidearm? No. Why? We are throwing sidearm because we did not have time to stop and turn, or because we want to step away from the target. Do we crunch in sidearm? No. Why? We want the ball to travel on a level plane. Do we twist in Sidearm? Yes, both ways. We twist both to snap the whip and to get the arm in position to snap. Sidearm is the only throw or swing where we throw the arm and the ball (bat) towards the target. Most people begin throwing sidearm because it seems to make sense to throw the arm (bat) toward the target, but unless we do it perfect it is hard on the arm. By the way, the other two ways are easy on the arm.

### The Three Fundamental Ways to Throw

There are three fundamental ways we need to learn to crack the whip when throwing or hitting, so there are three fundamental ways to throw: Inside-out, Outside-In, and Sidearm. Inside-out, (a pulling motion) starts, (like all pulling motions) in a low position and comes up a little.

Outside-In, (a pushing motion) starts, (like all pushing motions) in a high position and comes down a little, and Sidearm, (a double twisting motion) must start and stay on a level plane in the middle. There are two ways to throw perfect overhand (or underhand): Inside-out with a twist and outside-in with a crunch. There are two ways to throw perfect Sidearm: Off the front foot and off the back foot. Perfect means the eyes are lined up with the ball and the target upon release and the snap or power is at its maximum (called a short stroke in hitting). We want to throw overhand (underhand) whenever possible, stepping in the direction of the target. In pitching we want our pitches to appear to break late. In hitting we want to have a short stroke. In both cases we throw overhand (underhand) whenever possible for control.

### Turning

Turning gets the whip moving in position to be snapped. We turn in overhand and underhand. We turn both ways before the snap and continue the turn in the follow through. How far do we turn? With the feet pointed to the target, we turn all the way one way and then all the way the other. Turning gets the whip up ready to be pushed down or down ready to be pulled up. Continuing to turn to the end completes the follow through.

### The Double Twist in Sidearm

We throw overhand when we want to step in the direction of our target, but in the game we are not always able to step that way and make the play. For example, the momentum of the shortstop on the double play forces him to throw off the back foot sidearm. Likewise the momentum of the third baseman on the bunt when he is late forces him to throw off the front foot with his feet and momentum still heading toward the baseline. In pitching we use sidearm when we want to step towards the hitter and pitch outside, or step away from the hitter and pitch inside. For the double twist, you take two steps: the first step whips the arm back and the second step whips the arm forward. So, you will field and twist off one foot and twist and throw off the other. That means sometimes you will sometimes throw off the front foot and sometimes off the back.

### Summary: Turning, Twisting, and Crunching

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