

### Understand Shoulder Movement

The purpose of this document is to define the relationship between shoulder movement and the various ways we move things. Shoulder movement keys or indicates the way we move things, and this key can be very helpful in learning how to throw or hit properly.

### Focus is important for Understanding

Normally with my strategic approach I do not define or describe movement. In other words, definitions normally paint a static picture, but (like in any type of navigation or strategic view) heading, direction or focal point is a major part of that static picture. Just like a navigator's course line on his strategic map, here the focus will be on the direction of shoulder movement for the different ways we move things. By the way, this definition is in my Fastpitch Blog, where it applies to hitting, pitching and throwing both underhand and overhand; but it also applies to all the sports with which I am familiar. In previous documents I have described pushing or pulling as two ways we move things. I have also contrasted inside-out and outside-in ways we move things. I write about skiing, baseball and fastpitch; and I have just lately taken up the game of Golf. More than 50 years ago I took some bowling lessons from a man who bowled 300 games. In all these sports, inside-out provides the most power and balance when moving things. Think of a figure skater pulling her arms in to accelerate a spin, or the opposite (like fighting just to stay on fast, flat merry-go-round without seats) inside-out accelerates the thing being moved, and outside-in accelerates the thing doing the moving.

### Shoulder Movement

Shoulder movement keys or indicates the way we move things. Outside-in, we keep the shoulders level; and inside-out we either drop the shoulders when we pull and raise the shoulders when we push. In an inside-out move, the shoulders work as a unit. In other words, they both raise or they both lower. When they both lower for pulling the chest moves out and forward and when they both raise for pushing the chest moves in and backward. In contrast, with arm-swing wrist-flip outside-in propulsion the shoulders stay level. They stay level by the chest staying neutral (neither in nor out), so if one shoulder goes down the other goes up. A shoulder raise keys a pushing movement and dropping them keys a pulling movement.

### Hitting or Pitching

Once we understand the shoulder key, we can apply it to specific hitting or pitching situations. If we are hitting or pitching off the back foot, once we get the feel of working both shoulders together we can focus on only one of those shoulders, usually the back shoulder, driving it down in a pulling motion and driving it up in a pushing motion. Of course we could focus on the other shoulder and many people do. For

## Understand Shoulder Movement

example: have you ever heard of anyone saying “keep the front shoulder in” as they describe either hitting or pitching? In both hitting and pitching you are creating a whipping motion with the core of your body, producing an inside-out whip by either pulling while extending or pushing while extending. Whether hitting or pitching, the pushing motion has a forward release point and the pulling motion release point is as far back as possible. Knowing those release points or contact points are very important in learning how to hit or pitch, and knowing exactly how you drop or raise your back shoulder will help you get there.

### Hitting Specifics

Learning how to drop or raise your back shoulder will help you crowd the plate without giving up any extension at contact. In other words, you will be able to cover a much larger zone with power to all fields. Because the contact point is close to the body, dropping the shoulder limits the power zone to the area over the plate not far from the body. But, it increases the power for that area, and maybe more important it increases the ability to check your swing. Because the contact point is away from the body, raising a shoulder (see Cal Ripken for example: he starts at the back of the box and sets his tee or contact point way out in front of the plate) allows you to get all your body weight pushing behind the ball, hitting the ball in the direction of your push. Either way, you move down or up through the ball and the ball goes in the direction of your eyes and that movement. Instead of swinging the bat with your wrists you will be twirling the bat because of the end of the extension.

### Pitching Specifics

Learning how to drop or raise your back shoulder will help you learn how to whip your arm, which spins the ball; for more spin, more speed and more control. In the beginning, learn how to hit the outside corner going away against both left handed batters and right handed batters. If you are a right handed pitcher, that means to pull the ball to right handed batters and push the ball to left handed batters. When you can hit both those spots, then try back door on the outside corner. When you can do that you are ready to bring the ball inside to the better hitters to keep them from extending. Understanding shoulder movement will help you keep your misses either over the plate or away from the plate, as required.

### Summary: Understand Shoulder Movement

The purpose of this document is to define the relationship between shoulder movement and the various ways we move things. Shoulder movement keys or indicates the way we move things, and this key can be very helpful in learning how to throw or hit properly. A shoulder raise keys a pushing movement and dropping them keys a pulling movement.