

Set Bat-Lag Early to Increase Power

I know from operating my hitting club in SeaTac, WA, that many senior softball players spend hours upon hours in the gym building enormous muscles. Larger muscles may be beneficial to overall health, but not so much for generating softball Power. According to some studies, bulk can actually impede bat-speed as quick twitch muscles are trained to move slower, rather than faster. For the same reasons, many guru hitting instructors are now against using a heavy weighted practice bat. In my estimation the building of proper swing mechanics is the key to achieving any and all hitting goals.

My recommendation to seniors when looking to hit with more power, without bulking up, is to pre-set their bat-lag right at setup. I say this because hitters may be under the false impression that there is lag in their swing, but many are surprised that they are mistaken when looking at their video. You can have some pre-swing movement and then set your bat-lag, but once set, you must maintain it all the way to just before contact.

Bat-lag yields Power by delaying stored up energy built up during the pre-swing process. Setting bat-lag during the setup will store up potential energy as you wind your hips and shoulders back, creating tension between upper and lower body that is then released to the swing. Bat-lag creates power by delaying or lagging the bat barrel behind your hands during the swing, then exploding into the ball at the last moment, as you roll over your wrists. An analogy to this bat-lag method is if you were to visualize slamming an open door shut, versus slowly pushing it closed.

Note that both methods of closing the door cover the exact same distance or displacement of the object door. Both methods also perform the exact same amount of Work and accomplish the same task, that of closing the door. However, the quicker the door is shut, the greater the Power that is produced. Therefore, the faster you can move your bat to the ball the greater the impact with the ball.

Let's visit again the benefits of lifting weights versus improving swing mechanics, by looking at the Power and Work/Strength formulas.

Power vs. Strength:

Strength (or Work) = Force x distance the object is moved.

Power is the rate at which Work is done: $P = \text{Work}/\text{Time}$.

So, Power = Force x displacement of the object (i.e. the bat) divided by the Time it takes to perform the action, will have a larger effect on how hard you hit the ball versus Strength. Note

that strength does not have the *Time* element in its equation. So how quickly you can move the bat to the ball (bat-speed) will result in a higher energy released at impact which is Power.

Included below is a link to a video of Chris Larsen, a professional softball player, hitting in the Stadium-Power-Tour (i.e. the long-haul bombers) event at Safeco field here in Seattle. This video provides a visual of what I've been discussing in this article. Notice that Chris holds his bat upright at setup but then sets his bat-lag by tilting the barrel head toward the pitcher. His wrists are fully cocked or loaded before executing his swing, then he maintains his pre-set bat-lag until the hands are released to the ball.

Attachments:

Please take time to inspect the stickman diagram as it shows the correct and incorrect way to set bat-lag; admitting that my diagram is a bit busy. In addition, I've reproduced a photo of a former great MLB hitter George Brett, from the Kansas City Royals who was inducted into the Baseball Hall of Fame in **1999**, on the first ballot. Brett demonstrates what preset bat-lag looks like forming a triangle between the bat and lead arm.

Utilizing bat-lag will create greater Power with less effort by letting the bat do most of the work, rather than muscle).

Chris Larsen hitting video link: <https://www.youtube.com/watch?v=dqpZ4wBNPZk>

Happy Hitting,

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