

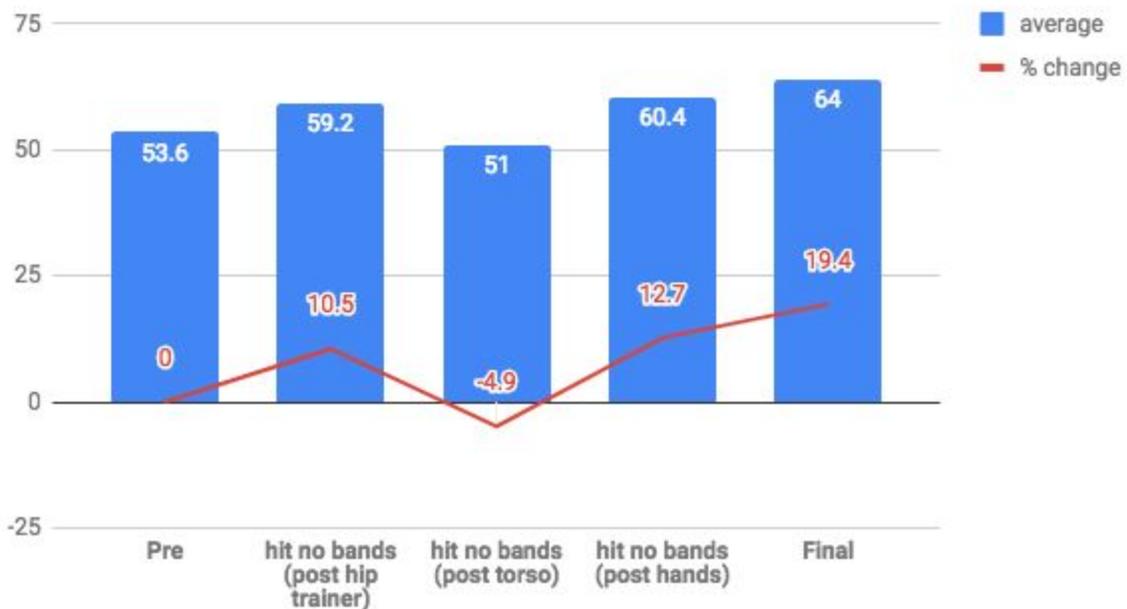
Softball Hitting & Swing Analysis

Athlete - #9
 Evaluator - Billy Glisan

Test Date: 9-24-18
 Date: 9-26-18

Ball Speed

Softball Hitting Exit Velocity (tee) - Athlete #9



Raw data from illustration above

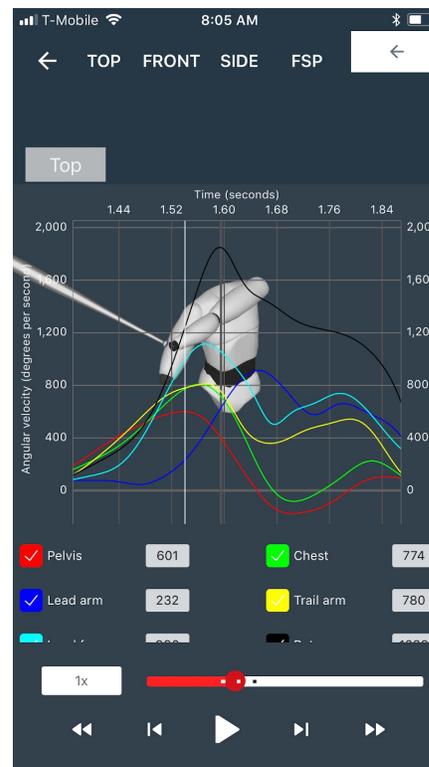
	Pre	hit no bands (post hip trainer)	hit no bands (post torso)	hit no bands (post hands)	Final
	57	62	57	65	67
	56	62	56	65	67
	55	59	50	61	65
	50	58	46	59	61
	50	55	46	52	60
average	53.6	59.2	51	60.4	64
% change		10.5	-4.9	12.7	19.4

Ball Speed - Results & Interpretation:

After her PC360 training, athlete #9's average exit ball speed increased almost 11 mph in about 20 minutes.

Motion Analysis

Kinematic Sequence (does the *hips* move first, *chest* move second, *trail arm* move third and *bat* move last?)



The images directly above are the pre-test swing on the left and the post-test on the right. Shown in these illustrations are various colored lines which are the peak movement speeds of the hips (pelvis), chest, lead upper arm, trail upper arm, lead forearm & bat. This gives a graphic illustration of what is reaching moving and reaching peak speeds first.

In softball hitting, the body should move in this order:

1. Hips (pelvis) (red line)
2. Chest (green)
3. Trail upper arm (yellow)
4. Trail lower arm (turquoise)

- 5. Lead upper arm (dark blue)
- 6. Bat (black)

Kinematic Body Movement Order - Results & Interpretation:

Pre-test

In her pre-test swing, athlete #9 moves her arms first before she moves her hips and chest.

What this means in simple terms is she is using her hands first to move the bat which isn't as powerful as when she can move her legs, hips, chest first before the arms move. This creates a more powerful swing if the hands and arms can wait longer before they move.

Post-test

In her post-test swing, athlete #9 moves her hips & chest first and then she has learned to time the movement of the arms better, as they now reach their peak speed later in the swing movement! This should help her generate more power & bat speed long-term (if she trains it).

Body Movement Speeds:



The illustration above compares the speed of various important body segments (captured from the 3d sports motion sensors):

- Hip (pelvis) turn
- Chest turn
- Lead (upper) arm
- Trail (upper arm)
- Bat speed

Body Movement Speed - Results & Interpretation:

Athlete #9's hip & chest turn speed increased from pre- to post-test while her lead arm speed decreased. This means that at the end of the session she was generating her bat speed more from her hips & body and less from just her lead arm. Her body movement was better sequenced which resulted in ball speed being increased.

Training Recommendations to Increase Hitting Power & Speed:

We suggest athlete #9 continues to improve her body movement sequence so her hips & chest start the movement of the body and bat into the ball. Additionally, she needs to increase the speed of her hip & chest turn as speeding these body parts up will help to increase her bat & ball speed if she sequences the movement of her body better, which will come from building the specific strength, power & speed of a more powerful & faster swing movement.

Further Information & Clarification:

If you would like to better understand this report, please feel free to contact me at billy@powercore360.com or by calling (970) 556-0435.