**Weighted bats or donuts: Are they actually helpful?**

  

This question was posed to me on our most recent interview that I did for the NVTBL web site. I answered it based on previous research that I had read on the topic and, interestingly enough a new research paper was published just this month on the topic in the Journal of Strength and Conditioning Research.

The study was conducted by Miller et al. titled, “Evaluating the effects of underload and overload warm-ups on subsequent swing velocity” which had three groups of baseball players (age 20) swing with bats of different weights to evaluate the effects of swing speed after these different warm up routines. The groups of players took warm up swings with either their regular bats (29 oz), with a lighter weight plastic bat (6 oz), or with a heavier weighted bat (57 oz.) to determine how these would impact their swing speed. The speeds of follow up swings with a standard bat were then measured after the test of 3 swings with the warm up bat.

The results of this study go against what many traditionally think about how batters should warm up before an at bat. The players that warmed up (3 swings) with the plastic bat increased their swing speed with their standard bat by nearly 8% when measured with 3D motion capture to assess swing velocity. This is relatively similar to those that warmed up with their standard bat. However, the players that warmed up with a heavier bat actually decreased their swing speed afterwards by a small, but statistically significant amount. It is true that many hitters feel psychologically faster and stronger swinging their regular bat after a heavy weighted bat in the on deck circle and we all know that a large part of hitting is confidence. So if a player feels more confident after swinging with a weight that is one thing, but the science consistently shows that the hitter actually swings slower than if he used a lighter bat or his regular bat for warm ups.

Written by Dr. Seth Blee, Physical Therapist

So what does this all mean? The percent of players that increased their velocity with weighted balls over the control group (13%) was less than the number of players who were injured with the weighted ball program.

For questions or comments or to submit requests for other topics, please email [SportsPT@inova.org](mailto:SportsPT@inova.org)