



PERFORMANCE BASEBALL/SOFTBALL CONDITIONING

A NEWSLETTER DEDICATED TO IMPROVING BASEBALL AND SOFTBALL PLAYERS

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OVERLOADING YOUR HITTING MUSCLES: TAKING OFF THE GLOVES

Bill Springman, Minor League Hitting Coordinator, Minnesota Twins

Bill begins his fourth season as minor league hitting coordinator after serving as hitting coach at Class AAA Rochester in 2005. He was hitting coach at Class AAA Salt Lake, 1997-2000 and played on Team USA during the 1977 World Cup Games in Nicaragua. Bill was selected by Pittsburgh in 1st Round of 1977 Secondary Phase free agent draft and named Sporting News First Team College All-American Shortstop in 1978 from Oral Roberts University. In 1979 he was named Topps' Class A Shortstop of the Year. He coached in 1992 for NCAA Division I National Champions at Pepperdine University. He graduated from Azusa Pacific University with a master's degree in Education.

If you have ever worked in a warehouse lifting heavy boxes filled with glass containers you will appreciate this. One of the old tricks that we used to pull on rookies was taking an empty box of similar shape and size that we'd be hoisting all day and throwing it at one of the newbies yelling "catch!" The startled worker, eyes wide open, would brace himself to catch the box to make sure none of the glass contents would break or risk getting fired on the first day. The result would be overcompensation of the muscles thinking the box was full. The hilarious result was the empty box would be thrown high in the air. Good fun at the rookie's expense and the highlight of an otherwise boring work day. However, this over reaction trick applies a very important training principle that is explained by Bill Springman, Minnesota Twins minor league hitting coordinator. -Ken Kontor



Bill Springman

donut and weighted bats has been around for a long time. The old timers used to use three bats to warm up. What the old timers didn't realized was that when one overloads, it's going to help their swing by helping their muscle memory. The principle is that the muscles used in hitting get

into a pattern of firing at a certain pace. By introducing the overload principle with weighted bats, you try to trick your muscle memory to improve performance.

Tricking the Muscles: Contrast Training

There's a lot on names for this type of muscle trickery training, one is contrast training. The important thing to know is how it works and how to apply it. The muscles are used at a certain pace as mentioned, but when overload is introduced the muscles have to work harder to try and maintain this pace. When the overload is taken off the muscles are tricked into remembering the force necessary to swing with the overload on and all of a sudden bat speed is increased dramatically by fooling the muscles.

There are many ways to overload the swing; however, the method we find works the best for us at the Twins is use of weighted gloves. The reason is that it places the overload at the right spot and trains the hands the way the player should swing. If

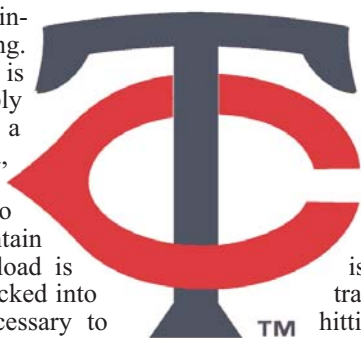
you look at sprinters and other explosive athletes they will overload their skill (the sprint) with sleds, parachutes and other such devices. Hitting is an explosive action and some training should be devoted to overloading the swing just as you would in hitting a baseball or softball.

The Swing Overload Continuum: Putting it into an Overall Program

Overload can take on several different forms. The first is general in nature, which would be strengthening and making more powerful muscles involved in the swing but is not movement specific. The second is overloading a similar movement like using weighted gloves and swinging a medicine ball similar to a hitting swing. This way greater overload can be done in a sports-specific environment at or near game action speed (see companion mini program). The final way is contrast overload, which we just explained and is specific to the movement.

I've learned a lot of the from the USC football strength coach. They do general strength training but the speed and movement specific training is becoming more and more a part of what they do even for the big linemen up front. When you apply these ideas to the sport of baseball where size isn't a factor and this type of training is even more important—hitting is improved as we work on the factors of increasing speed and quickness with the bat.

Perry Castellano, our strength and conditioning coach, has been instrumental in designing a program that integrates all these factors and has designed a medicine ball workout with the gloves. You might think this isn't much of a workout but with the addition of a weighted glove, it is very chal-



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The advisability and methods of overloading one's hitting/batting stroke is a question I get a lot. In baseball, use of the bat

lenging and provides a great workout. The weight room today is much different than when I was training. It is designed to be sports/position-specific in movement, overload and speed/quickness development.

Swing-Specific Program

The following program is used by the Twins at various levels in our system. Joe uses the weighted gloves in his routine much of the year. Players like the way contrast training works and how it feels.

The weighted gloves are accessible right in the batting cage and here's how they are put to use:

- Gloves on (this is a great way of warming

up as well) x 20 swings


- Gloves on and training partner in cage x 20 swings
- Gloves off (first player) x 20 swings
- Gloves off (second player x 20 swings

We do this in groups of two, three or four players following the same sequence depending on how many players you have to work with and how many cages you have. If you have four players, I recommend cutting the swings down to 10 so the rest period isn't too long and you don't lose that contrast muscle memory feeling.

We only do one routine (we might to two in spring training). In one day, our play-

ers will get a lot of swings so we don't overload too much. Also, as the season progresses we will cut the number of swings from 20 to 10 in the two man rotation. This is to keep the players fresh during the long, grinding season.

With the Gloves off a player "feels" quicker, therefore has the idea of being able to wait longer before committing.

Hitting is a precise skill of speed and reaction any small advantage can pay big dividends in improvement performance. 

More Information Please!

For information on weighted gloves go to www.drazaathletics.com