

FACILITY SHOWCASE

University of Kentucky – Weight Room

Location: E. J. Nutter Training
Facility

Size: 9,000 sq. ft.

Description: Originally constructed at a cost of \$5.7 million, the The E. J. Nutter Training Facility officially became the home of Kentucky football in 1987. Aside from dressing facilities, which feature large, personal lockers for every Kentucky football player, the Nutter Center is highlighted by a 9,000-square-foot weight room. The weight room has 100,000 pounds of free weights in addition to numerous strength and conditioning machines.



THE COACHES CORNER

FEATURED ARTICLE: Eccentrics vs. Negatives – *Re-thinking Your Definitions as it Pertains to Speed and Power*

Textbook Definition – Eccentric Contraction: Eccentric contraction is the opposite of isotonic; the muscle lengthens as it gains tension.

Textbook Definition – Negative Contraction “Muscles undergoing heavy eccentric loading suffer greater damage when overloaded (such as during muscle building or strength training exercise) as compared to concentric loading. When eccentric contractions are used in weight training they are normally called **"negatives"**.”

In casual use in the weight room, gyms and fitness centers, the term ‘negatives’ is used synonymously with ‘eccentrics’. When in fact they are two different kinds of contractions and the understanding of each and when and how to use them could greatly enhance your speed and power development.

The first term, eccentrics, is used to describe the lengthening of the muscle by use of the **protagonist** muscle (ie. An elbow flexor movement (curl) eccentric contraction is using the bicep to slowly increase the angle of the joint under tension of said muscle.)

The second term, negatives, is used to describe the lengthening of the muscle by use of the **antagonist** muscle by (ie. An elbow flexor movement (curl) negative contraction is using the tricep to slowly or violently increase the angle of the joint under tension of said muscle.)

So how does this help me build a faster, more explosive athlete? By using the vertical jump as an example, if I eccentrically lowered myself down into an athletic position to load the hips, posterior chain and thighs to set up the launch phase of the vertical jump, I would get an average result (as long as jumping mechanics were set up and executed properly). As for using a negative contraction to get into launch phase of said vertical jump, I would literally “throw” myself down (using the antagonists; hip flexors, hamstrings, core, etc.) to set up the VERY powerful stretch reflex and get a much more impressive result.

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