



# BUILDING STRENGTH & POWER



By Coach Troy Keali'i Lau

Much has been written about the importance of hormone levels during strength and power development, and how to naturally enhance the body's output of these hormone levels during training. Most researchers and strength trainers agree that multi-joint exercises are the key to enhancing these hormone levels during the workout so that athletes can recuperate from more intense training regimens and see more calculable results. The purpose of this article is to take this process one step further towards Elite Training and understand the value of putting the body into a "fight or flight" response to increase hormone output; or what we at Prodigy Athletes refer to as "waking the beast."

The body produces muscle building hormones that synthesize with proteins to rebuild the muscle fibers damaged by resistance training. Simply put, resistance training tears muscles that are then repaired by hormones during the anabolic cycle to create bigger and stronger muscles. At certain times during the day, and during your life, these hormone levels can change. The quandary is how to naturally increase those hormone levels during our training programs to facilitate calculable results in our athletes and maintain healthy bodies during intense workout regimens. The key is to consistently get the body into a state of "fight or flight."

Several coaching points can assist in getting your athletes to trigger the "fight or flight" response

during their workouts: multi-joint exercises, rhythm, and the "Bark." Multi-joint exercises are movements with resistance that incorporate the use of multiple joints at the same time. Examples include squats, power cleans, dumbbell crosses, power press and plyometrics. These exercises create multiple pain centers in the body and create an increase in hormone levels by getting the body to "fight." The result of squats, for example, is not just bigger and stronger legs, but an overall increase in muscle mass. And yes, even plyometrics can get the hormones going as

anyone that has been on our Vertimax boards can testify.

Rhythm is everything. Fighters have known that for centuries. They train for speed with jump ropes and speed bags. They start by learning the basic rhythm and are able to become faster by speeding that rhythm up. Track athletes become faster, not by running harder, but by speeding the natural rhythm of the running motion. We can use the same principle to become stronger. During sets athletes waste a lot of time and energy during a set thinking about their limitations and the difficulty of the exercise, or pressing through tough reps while holding their breath. Coach them to trust their work ethic and commit their body... and find their rhythm. Once they find their rhythm they will lift more weight with more repetitions. Why? One reason is the oxidation of the body. When our breathing is in line with the movements of our workout, more oxygen is able to be delivered to

of power, and when it is used in conjunction with the athletes breathing it becomes a rhythm of explosions. It gets the body to that "fight or flight" response quickly and is the sign that your athlete has decided to give everything he or she has.

A few things to remember about "waking the beast;" the introduction of higher levels of hormones during your workout will cause new athletes to become dizzy or even nauseous during the first few workouts. As their bodies adjust to the higher hormone levels of the regimen, their strength and reps will increase with less affect on their ability to continue. Attention should be given to load/volume of your workout program. Most research agrees that the levels of hormones produced during a workout decreases after 45-60 minutes, and that hormone levels are sustained at higher levels with sets of 10 with 1 minute rest periods, sets of 5 with 3 minute rest periods, and so on. Configure programs that keep bodies



PA Coach Jason Fong utilizes these natural strength techniques in his body-building regimen.

*Getting your athletes to trigger the "fight or flight" response during their workouts: multi-joint exercises, rhythm, and the "Bark."*

power the body. Also, if we have developed a strong core and are able to maintain balance and rhythm during our sets, we are able to incorporate the appropriate muscles to complete our task. Lack of rhythm, balance and core strength means that

we are exerting energy outside the focal points of the exercise, or task.

Now to the mighty "Bark." As kids we used to make fun of the Yard Dogs in the weight room that used to make all the noises grunting and groaning during their sets. The truth is... those guys had it right. Martial Arts experts have long touted the use of chi and the ability to channel the fighter's inner strength. It is a source of energy believed to be just below the sternum. Other cultures call it many things, but here is where it becomes less mystical. The "Bark" is an explosion

in motion and that train the athlete to be in a fight for 45-60 minutes; stretching and warm-ups do not count as part of that workout time.

Nutrition is also paramount to the athletes' ability to perform and recover. Protein helps increase metabolism and is essential to the anabolic cycle. Communicate that the two most important things to working out are to 1) eat and 2) sleep. Finally, mistakes are made when we are tired, so remind your athletes to focus as their workouts progress. Stress the importance of getting stronger through their sets. Last set, best set!

For more information on Prodigy Athletes please visit:

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Coach Lau has been training elite athletes for over twelve years and has been involved in successfully training over 15,000 youth, high school, and college athletes in camps and clinics. He has coached football locally at Temecula Valley High School, Heritage High School, and Temecula Valley Pop Warner. He is the founder and Master Trainer of Prodigy Athletes, a high-performance sports training, testing and college recruiting services company located here in Temecula.