

Gizmos, Gadgets, and Group Training

By

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Across the country performance coaches or performance enhancement specialists tout the need/benefits of many gadgets and latest fad gizmos to hit the market. Each of these devices makes training more exciting while bringing the user “better than advertised results”. They often have a scientific study (or two) to back up the immense benefits of such training tools. Now that you think about it, whatever happened to the popular core-board?

The problem lies in the fact that these gadgets often become a primary training tool for many unknowing athletes, taking the place of good old fashioned weight training and functional strongman modalities. Simply put, ***IF YOU WANT TO GET FASTER, STRONGER, or MORE POWERFUL, YOU NEED TO INCREASE THE HORSEPOWER OF YOUR MOTOR.*** One of my colleagues, PICP certified strength coach Mike Jones expressed to me in very simple terms that if an athlete can run on a high speed treadmill all day long, but unless they increase the strength/power and force output of the sprinting and acceleration muscles how they can ever expect to get faster? Great point.

You see, without increasing the force production capacity of the hip extensor, knee flexor, low back, and dorsiflexor musculature, it may be difficult for an athlete to create greater amounts of force, which in turn will aid them in running and accelerating faster. It is interesting to note that oftentimes coaches will come into APECS and meet with some of our strength coaches. After seeing in person and reading in the newspaper about many of the athletes whom workout with us, many coaches always ask the question “What do you guys do for speed and agility work?” Oftentimes we will pull an athlete or two aside to answer the question themselves. The answer typically sounds like this, “Ummm, what do you mean?” (with a confused look on their face). “You mean like deep squats, split squats, kneeling hamstring curls, super yoke, Olympic lifts, atlas stones, and stuff like that?”

Why not try getting strong and structurally balanced first, then develop power and force production on top of that foundation. With that said, let’s take a peek at some of the gadgets and gizmos often prescribed to modern day athletes for increasing their speed, agility , quickness, power, and (hopefully) on field performance.

CONES

I can't say these are a gizmo or gadget, but charging groups of kids up to \$200 per hour to watch them run around these while fixing their mechanics or holding a stop watch just doesn't cut it for this business owner or strength coach. Best advice: get your own set of cones and do it in the backyard or local field. You could save yourself a fortune in training fees as you can buy a set of cones at HOME DEPOT for a couple of bucks. Besides spending the extra time with mom and/or dad can be good for any family.

LOW HURDLES

Not quite as obvious as cones, this cheap training tool can be seen in use at many SAQ group training centers across the country. Once again, charge kids up to \$200 per hour to watch them jump over these (along with running around the cones) using different jumping patterns such as single leg, lateral hops, and forward bounding. Yes body control is critical during these exercises, but how do you expect to gain body control without proper strength and structural balance. For instance if an athlete did not have a structural balance evaluation prior to be instructed to jump over these hurdles, how is it possible to know if this athlete has proper VMO strength/activation required to stabilize the knee and keep it from buckling inward. The hurdle jumping may just reiterate the improper pattern, thus increasing the potential for injury. Or how about low back strength? If the athlete has a weak low back, but yet the performance specialist keeps telling them to control the torso while jumping over the hurdles. Wouldn't it make sense to strengthen the athletes weak links with stable movements first (i.e.: split squats, step ups, etc...) prior to prescribing more dynamic movements????

BALANCE DEVICES

I am not sure of the last time I saw a sporting event take place on an unstable surface, especially one in which the athlete was required to balance on one leg for an extended period of time. But yet, this mode of training is considered to be sport specific. Balance devices do have their places in training, but primarily in rehabilitation settings in which neuromuscular activation is trying to be restored. But, many have taken it 20 steps further, combining heavier weights with unstable surface training. As far as adding heavy loads to unstable exercises (i.e.: back squatting while standing on a Swiss or BOSU ball), what is the point. If you are using less weight, then there is a lower stress response to the exercise. With the lower stress, there is less mechanical adaptation and remodeling that occurs. In other words, if you

are using less weight in an exercise (i.e.: squat) you may be training yourself to become weaker due to the stress response created by the decreased poundage.

Elastic Cords (that is cord/band resistance applied to every possible athletic movement)

Accommodated resistance training can be awesome. The use of Jump stretch bands can markedly improve strength gains in an athlete, especially when used in weight training settings. But applying bands to the throwing arm of a pitcher while pitching, or attaching bands around a hockey stick or baseball bat to create resistance against the movement? Whatever happened to just getting the muscles that exert their pull on the bones stronger? It seems many performance specialists believe this to be an effective method of increasing “neuromuscular” coordination/activation in that movement, thus leading to more power/speed. Well, what if the exact opposite occurs, and the athlete may actually be slowing down due to the altered recruitment patterns of the resisted movement vs. the non resisted sporting movement. As mentioned earlier, bands can be an excellent training tool when applied to conventional strength training movements (i.e.: squats, deadlift, bench press, etc) during various phases throughout a training cycle, but when they are used as resistance against movements commonly found in sport, the results may be a little bit of a stretch.

HORIZONTAL JUMPING MACHINES

Gravity. It seems it is always pulling us down. Whether it is on the sporting field or sitting in front of the TV, gravity seems to always exert its force in one direction. So, when training to increase force/power, athletes training with weights typically battle against the forces of gravity. Jumping and triple extension hip extension movements are no different. You need to extend at the ankles, knees, and hips. So, when you are laying flat on your back, is it truly possible to mimic upright power movements, as the torso has a tendency to lean forward to allow for greater gluteal/hamstring activation in upright hip extension power movements. When laying flat on your back, is it possible to duplicate this, or does this machine target power development through the activation of other musculature. I am sure these machines are excellent for rehabilitation and unilateral lower extremity work, but do horizontal jumping machines really develop upright power?

Bottom line, results are seen on the field. Just because the performance specialist is telling you that you have improved on your cone drill time or your horizontal jumping machine power output does not mean the results will transfer onto the field of play. For instance, many times I have personally seen

many athletes walk through our doors after training in one or all of these manners, and still not be able to pass the baseline structural balance tests, exhibiting weak VMO and low back musculature as well as internally rotated (rounded forward) shoulder posture. Upon designing a strength training program to correct these imbalances as well as increase overall functional strength and muscle size, the athletes then began to realize the difference both on the field, in the weight room, and not to mention, in the mirror....

When it comes to strength and conditioning, many specialists seem to want to out-do each other with new and exciting training methods and tools. But, it seems the most successful strength coaches in our industry (success as measured in the successes of the athletes they have worked with) tend to stay with the methods that have worked for decades: increase an athlete's strength, structural balance, and power. Don't you think if some new and exciting method really worked, that the top strength coaches across the globe would be using it? I can't remember the last time I saw a set of cones or BOSU trainer at the Poliquin Performance Center in Rhode Island. If it ain't broke, why try to fix it. Why not save up your money for a good set of Olympic bumper plates, power rack, multi bench, and some dumbbells, or perhaps a membership to a facility like [APECS](#).

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