

# Training for size can hurt sports performance

By Nick Ward

When it comes to getting big for sports like football, is muscle over movement developing players in the right way? What can we learn for our gym sessions from the science of strength training?



Nick Ward

Another high school sports season is under way around the country. At times, body image seems to be a more desirable goal for young athletes than performance. In the weight room, players focus on energy-zapping, muscle-reforming, and non-functional exercises. But instead of shape and size, the focus should be on athletic performance.

Bodybuilding, or hypertrophy training, is only one method of strength training. It does have a place in an athlete's development if lack of size or muscle mass is hurting his or her performance. But genetics and maturity also play important roles. Our physique can dictate what sports or positions we play. Making the most of your body's potential and performance comes down to three things: how well you train, eat, and rest.

## Training for speed and strength

Science shows that a bigger muscle fiber will produce more

force. Several muscle fibers are capable of producing high force, but at different rates and speeds. How we train can strongly influence whether our muscles can produce faster, higher force movements or slower, high- force movements.

It's about speed and strength. The equation  $\text{force} = \text{mass} \times \text{acceleration}$  shows that mass or size isn't everything. We can train for speed, too. However, this doesn't mean lifting light weights quickly. It means lifting the heaviest weight and accelerating as quickly as possible. So grinding out a squat or a bench press is inferior to using a load where at the end of the session, you might feel like you've still got a couple of reps left in the tank.

### **Maintaining flexibility**

Losing coordination and flexibility is the other problem. High school students aren't professional bodybuilders who train for symmetry and good mobility to assist in posing. This type of exercise leads to beach muscles and loss of the flexibility needed in sports. Exercises like leg extensions and curls build the muscle into non-athletic forms. Instead, students should use athletic forms of single-leg squatting, cleans and dead lifts, and body-weight or upright-based pushing and pulling.

Training for size can hurt your athletic abilities. The good news? Training for movement, not muscles, can improve athletic performance, and muscle growth still comes as a secondary effect. This training, along with eating well, resting well, and giving your body opportunities to perform well, reduces the risk of injury and allows players to reap the physical benefits.

*Nick Ward is the sports performance director at Barton Performance by ALTISTM.*