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NOVEMBER 2008

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BY MATT BRZYCKI

Has the prevalence of childhood obesity reached a plateau?

To say that childhood obesity is a serious problem in the U.S. is a gross understatement. Indeed, the Centers for Disease Control and Prevention (CDC) stated that childhood obesity is the fastest growing health crisis in the U.S. And, it's no coincidence that the scientific journal *Obesity* grew from six issues and 509 pages in its first year of publication in 1993 to 12 issues and 3,196 pages in 2007.

By the way, obesity isn't a problem that's inherent to the U.S. Obesity is a concern around the world, and isn't limited to children. It's estimated by the World Health Organization that at least 300 million people around the world are obese. The widespread reach of this ominous epidemic is exemplified by the term "globesity."

In any event, a recent study of 8,165 children and adolescents found that the prevalence of obesity didn't change between 1999 and 2006. Perhaps the most telling sign of how grave the situation has become is that the finding of a plateau has been viewed as "good news." It's too early to tell if this plateau is a trend or an anomaly. And remember, even if the prevalence of childhood obesity has leveled off, the rates are still quite high. FM

What is cross transfer?

Many studies have shown that training a muscle on one side of the body improves the strength of the contralateral muscle (that is, the same muscle on the opposite side of the body). This phenomenon — which first came to light in 1894 — has been dubbed "indirect transfer" or "cross transfer." Although the effect is somewhat small — a recent study found an increase of 7 percent in six weeks — the fact is that the effect is real.

Cross transfer has important ramifications in rehabilitative training. If an injury prohibits training one side of the body, strength can still be increased by training the other side of the body. Here's an example: Suppose that a woman had shoulder surgery and, as a result, her left arm was placed in a sling. Obviously, the sling wouldn't allow her to perform any exercises that involved any range of motion for the left side of her torso. Even so, she could perform exercises with the right side of her torso and obtain some improvements in strength for her injured side.

Numerous machines are equipped with independent movement arms that allow individuals to train their limbs separately. If such machines aren't available, unilateral (single-limb) training can be performed with dumbbells and manual resistance. FM

Does aspartate increase strength or improve performance?

Aspartate is a non-essential amino acid. Like most of the other amino acids, aspartate has been investigated as a potential ergogenic aid (performance enhancer). In fact, the first known study dates back more than 50 years. The majority of the research on aspartate has looked at its effect on endurance, almost all of which involved rats swimming to exhaustion. This has yielded a mixed bag of results, with some studies showing a positive effect, and roughly an equal number of studies showing no effect. A handful of studies have been conducted on humans, most of which involved cycling to exhaustion. Again, the findings are inconsistent. Aspartate has no effect on muscular endurance or strength.

Several studies have looked at the effects of aspartate in combination with other substances, most often arginine (another amino acid). Since the studies are so few, it's difficult to draw any meaningful conclusions.

Take note: Researchers have raised the issue of potential harmful effects when aspartate is used alone or in combination with other amino acids. FM

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