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FITNESS

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SPRING FASHION

High Intensity:
Just a Craze or
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Patellofemoral
Pain Syndrome

DEVIN
ALEXANDER

Eat Without Sacrificing
the Foods You Love

AF Q & A

BY MATT BRZYCKI

Does garlic improve cholesterol?

Researchers in Australia performed a meta-analysis including 39 reports that studied the effect of garlic preparations on various measures of lipid profile. The investigation involved a total of 2,298 subjects. Most of the studies used garlic powder; also used were garlic oil, aged garlic extract and raw garlic.

It was found that garlic was effective in reducing total cholesterol by 17 milligrams per deciliter (mg/dL) and low-density lipoprotein (the “bad” cholesterol) by 9 mg/dL in those individuals whose cholesterol was over 200 mg/dL when garlic was used for more than two months. Garlic produced only a slight improvement on high-density lipoprotein (the “good” cholesterol) and had no significant impact on triglycerides. Side effects included garlic odor, breath and taste. In 15 studies, gastrointestinal side effects were reported in a small number of subjects but the figure was no different than the placebo.



How much easier is walking and jogging on a treadmill when holding onto the handrails?

Step into most gyms and fitness centers and you'll likely see some individuals walking or running on treadmills while holding onto the handrails or, sometimes, the console. What effect does this have on their effort?

In a study conducted at the College of St. Scholastica in Duluth, Minn., 12 subjects were randomly assigned to perform two sessions of walking/jogging on a treadmill. In the first session, they walked

at 3.5 miles per hour (mph) for 10 minutes without handrail support, then jogged at 5.5 mph for 10 minutes with it. In the second session, they jogged at 5.5 mph for 10 minutes without support, then walked at 3.5 mph for 10 minutes with it.

Surprisingly, the study found that most physiological responses—including oxygen intake, cardiac output, heart rate and blood pressure—weren't significantly changed by using the handrails. So, based on this particular study, it really doesn't matter if you hold onto the handrails while walking or jogging on a treadmill.

Does exercising on an unstable surface engage more muscle mass than exercising on a stable surface?

One of the most popular items in gyms and fitness centers is the stability ball. Despite its widespread use, there has been no evidence that exercising on a stability ball offers any significant advantages.

In a recent study, researchers in Norway randomly assigned 16 men (average age 22.5) to do the bench press with a barbell on three different surfaces: a stable bench, a balance cushion and a Swiss ball.

Relative to the stable bench, the 6RM strength of the subjects was about 93% with the balance cushion and 92% with the Swiss ball; the activity of the pectoralis major—the main target of the exercise—was about 90% with the balance cushion and 81% with the Swiss ball; the activity of the triceps was about 79% with the balance cushion and 69% with the Swiss ball.

So, doing the bench press on a stable surface had greater 6RM strength and activity of the pectoralis and triceps compared with the two unstable surfaces. These findings (which are consistent

with many other studies) show that unstable surfaces have an undesirable effect on force production and muscle activation. Hence, producing less force and activating less muscle aren't ideal when it comes to strength training.

That said, exercising on a stability ball can be used to provide variety to workouts. Just be aware that its use is relatively ineffective for improving muscular strength.

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