

WELL | MOVE

# Lift Weights, Eat More Protein, Especially if You're Over 40

Phys Ed

By GRETCHEN REYNOLDS FEB. 7, 2018

People who would like to become physically stronger should start with weight training and add protein to their diets, according to a comprehensive scientific review of research.

The review finds that eating more protein, well past the amounts currently recommended, can significantly augment the effects of lifting weights, especially for people past the age of 40. But there is an upper limit to the benefits of protein, the review cautions.

On the other hand, any form of protein is likely to be effective, it concludes, not merely high-protein shakes and supplements. Beef, chicken, yogurt and even protein from peas or quinoa could help us to build larger and stronger muscles.

It makes intuitive sense that protein in our diets should aid in bulking up muscles in our bodies, since muscles consist mostly of protein. When we lift weights, we stress the muscles and cause minute damage to muscle tissue, which

then makes new proteins to heal. But muscles also will readily turn to and slurp up any bonus proteins floating around in the bloodstream.

Knowing this, bodybuilders have long swallowed large amounts of gloppy, protein-rich shakes after workouts in the expectation of adding greater bulk to their muscles than the lifting alone.

But the advantages of added dietary protein for the rest of us have been less clear. Past studies have indicated that, in general, people will gain more strength and muscle mass while weight training if they up their intake of protein than if they do not. But many of those studies have been relatively small or short-term and often have focused on only one kind of person, such as young men or older adults, or one kind of protein, such as whey shakes or soy.

Whether everyone, including women, benefits similarly from consuming added protein while weight training and just how much protein is ideal, as well as what that protein should consist of and when it should be eaten, are all open questions.

So for the review, which was published in the *British Journal of Sports Medicine*, researchers from McMaster University in Hamilton, Ontario, and other institutions decided to aggregate the results from the best past studies of weight training and protein.

Using databases of published research, they looked for experiments that had lasted at least six weeks, included a control group and carefully tracked participants' protein intake as well as the eventual impacts on their muscle size and strength.

They wound up with 49 high-quality past experiments that had studied a total of 1,863 people, including men and women, young and old, and experienced weight trainers as well as novices. The sources of the protein in the different studies had varied, as had the amounts and the times of day when people had downed them.

To answer the simplest question of whether taking in more protein during

weight training led to larger increases in muscle size and strength, the researchers added all of the results together.

And the answer was a resounding yes. Men and women who ate more protein while weight training did develop larger, stronger muscles than those who did not.

The impacts of this extra protein were not enormous. Almost everyone who started or continued weight training became stronger in these studies, whether they ate more protein or not.

But those who did ramp up their protein gained an extra 10 percent or so in strength and about 25 percent in muscle mass compared to the control groups.

The researchers also looked for the sweet spot for protein intake, which turned out to be about 1.6 grams of protein per kilogram of body weight per day. In practical terms, that would amount to about 130 grams of protein a day for a 175-pound man. (A chicken breast has about 45 grams of protein.)

Beyond that point, more protein did not result in more muscle benefits.

That number is considerably higher, however, than the protein levels called for in the current federal recommendations, which suggest about 56 grams of protein a day for men and 46 grams a day for women.

“We think that, for the purposes of maximizing muscular strength and mass with resistance training, most people need more protein” than is advised in the recommendations, says Rob Morton, a doctoral student at McMaster who led the study.

That advice holds especially true for middle-aged and older weight trainers, he says, almost none of whom were getting the ideal amount of protein in these studies and who, presumably in consequence, tended to show much smaller gains in strength and muscle size than younger people.

On the other hand and conveniently, any type of and time for protein was fine. The gains were similar if people downed their protein immediately after a workout

or in the hours earlier or later, and it made no difference if the protein was solid or liquid, soy, beef, vegan or any other.

Still, many questions remain, including whether adding more protein affects body weight or metabolism and if so, what that means for health.

“We obviously need more studies,” Mr. Morton says.

But in the meantime, if you are wondering about your own protein intake, you can find many apps that will parse your diet, he says.

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