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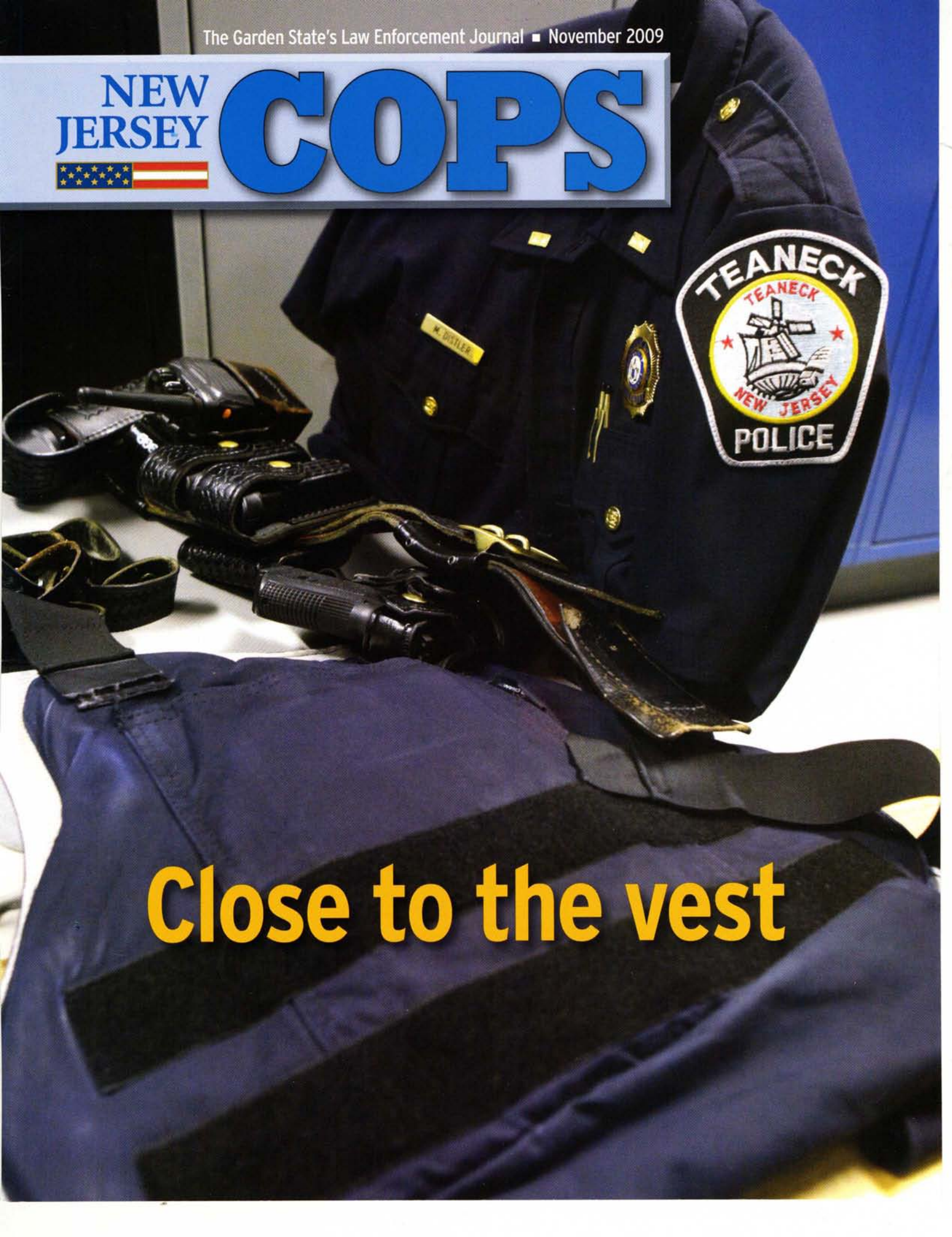

Close to the vest

How much protein does one need

Matt Brzycki

BY MATT BRZYCKI

Protein is necessary for the growth, maintenance and repair of biological tissues, especially muscle tissue. As a result, many individuals think that they need to take protein supplements in order to increase their muscular size and strength.

A number of studies have shown that the protein needs of active individuals may be higher than those of their inactive counterparts. But this need has been drastically exaggerated and overrated by the supplement industry.

The fact of the matter is that individuals who consume adequate calories generally obtain sufficient protein. Caloric requirements are determined by several factors including age, gender, size and level of activity. Active individuals require and consume more calories than the average person. With these additional calories comes additional protein (and other nutrients, for that matter).

Case in point: During my junior year at Penn State, I took a nutrition class in which one of the course assignments required me to monitor my caloric intake and expenditure over a 48-hour period. Then, I had to determine the amount of macronutrients (carbohydrate, fat and protein) and micronutrients (vitamins and minerals) that I was getting.

The recommended caloric intake for a man of my age and size (at that time, 165 pounds) was about 2,700 calories per day. As it turned out, I consumed an average of 3,563.75 calories (3,372.5 on Day 1 and 3,755.0 on Day 2) or about 32 percent more calories than the average man of similar age and size. I needed to eat this large number of calories so that I didn't lose weight. This probably sounds strange but I had a high metabolic rate and low percentage of body fat and my activity level was well above normal. (I was a physical education major, competitive powerlifter and recreational runner.)

What about my protein intake? For adults, the Recommended Dietary Allowance (RDA) for protein is roughly 0.36 grams of protein per pound of bodyweight per day. This means that at a bodyweight of 165 pounds, I needed about 60 grams of protein each day. Without taking any protein supplement, I got an average of 160.8 grams of protein a day (135.8 on Day 1 and 185.8 on Day 2). In fact, my protein intake on Day 2 was enough to meet the needs of a man who weighed 516 pounds.

At this point, it's worth explaining how RDAs are established for protein and other nutrients. Scientists determine the "floor" below which deficiency occurs and the "ceiling" above which harm occurs. A margin of safety is included that covers nearly everyone; 97.5 percent of the population. So the RDAs exceed what most people require in order to meet the needs of those with the highest requirements. The RDAs don't represent minimum requirements and failure to consume a recommended amount isn't necessarily indicative of a dietary deficiency.

Assuming a sufficient caloric intake, at least 150 percent of the RDA for protein is typically present in any diet in which 15 percent of its calories are from protein. Suppose, for example, that a 165-pound individual consumes 2,700 calories per day. If 15 percent of these calories came from protein, the person would be getting 405 calories from protein. Since there are four calories in one gram of protein, this equals a little more than 101 grams of protein or about 170 percent of the RDA. And remember, this is without making any effort to consume extra protein.

If you're concerned that you're not getting enough protein in your diet, you can obtain sufficient amounts by simply consuming more foods that are high in protein such as lean beef, pork, fish, poultry, egg whites and low-fat dairy products.

If you're taking a protein supplement, be advised that when protein is consumed in excess of the needs for the growth, maintenance and repair of tissue, two things can happen: (1) the protein is stored as fat or glycogen or (2) the protein is excreted in the urine. When excessive protein is urinated, it places a heavy burden on the liver and kidneys and may damage those organs. Other potential side effects from a high intake of protein include diarrhea, cramps, gastrointestinal upset, dehydration (which increases the risk of a heat-related disorder such as heat exhaustion and heat stroke) and an excessive loss of calcium in the urine.

THE BOTTOM LINE

Supplements may be warranted for vegetarians and those who consume a relatively low number of calories. But if you eat an adequate diet – in terms of caloric intake and composition – there's no need for you to take protein supplements.

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