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SAVE THE DATE 30th Annual New Jersey Law Enforcement Memorial Service

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Do You Need to Take Vitamin Supplements?

By Matt Brzycki, Assistant Director of Campus Recreation, Fitness, Princeton University

When Casimir Funk, a Polish biochemist, introduced the term "vitamine" in 1912, he probably had no idea that a century or so later, vitamins would make up a large part of a supplement industry that generates sales of more than 25 billion dollars per year in the United States alone.

Many people believe that their foods don't provide them with enough vitamins and, therefore, take one or more supplements. Did you ever have or know anyone who had beriberi? How about scurvy? Pellagra? Rickets? These are vitamin deficiency diseases that have been eradicated in our country and other civilized nations. If Americans consumed inadequate amounts of vitamins, these diseases would be widespread.

The Recommended Dietary Allowance (RDA) is designed to meet the needs of 97.5% of all healthy individuals for a particular age or gender. There's no unbiased, scientific evidence to suggest that those who consume a balanced diet need vitamins in excess of the RDA. And there's no unbiased, scientific evidence to suggest that an intake of vitamins that's in excess of the RDA confers any extra benefits or improves performance.

In truth, even a marginal diet provides adequate vitamins. That being said, some individuals may benefit from a multi-vitamin supplement. For example, a vitamin supplement may be warranted for vegetarians along with individuals who restrict their caloric intake in order to "make weight" to compete in sports such as powerlifting, weightlifting, boxing and judo.

Whenever possible, though, it's better to get vitamins from foods rather than pills. But, in general, there's nothing wrong with taking a low-dose multi-vitamin supplement on a daily basis.

When consumed in reasonable doses, vitamins pose no health or safety risks. According to the Academy of Nutrition and Dietetics, high doses of vitamins pose a risk of toxicity that can lead to serious medical complications. When taken in high doses, vitamins that are in excess of those that are needed by the body function as freefloating drugs instead of receptor-bound nutrients. Like all drugs, high doses of vitamins have the potential for adverse effects.

Of greatest concern is an excessive intake of the fat-soluble vitamins – particularly vitamins A and D – which can be extremely toxic. Consuming large doses of vitamin A can result in nausea, vomiting, diarrhea, drowsiness, headaches, double vision, irritability, loss of appetite, skin rashes and an increased susceptibility to disease; consuming large doses of vitamin D can result in nausea, vomiting, diarrhea, drowsiness, headaches, loss of appetite, loss of weight, hypertension and elevated cholesterol.

Excessive amounts of the B vitamins and vitamin C are generally excreted (which prompts some authorities to suggest that consuming high amounts of water-soluble vitamins leaves a person with nothing more than expensive urine). This action places an inordinate amount of stress on the liver and kidneys. Though mainly excreted, large amounts of water-soluble vitamins can still produce adverse effects while in the body. For instance, a high intake of vitamin C can result in nausea, diarrhea, stomach cramps, kidney stones, bladder irritation, intestinal problems, elevated cholesterol and gout.

Bottom line: The vast majority of people can get an adequate intake of vitamins from a balanced diet that contains a variety of healthy foods.

Matt Brzycki is the Assistant Director of Campus Recreation, Fitness at Princeton University in Princeton, New Jersey. A former Marine Drill Instructor, he has authored, co-authored and edited 17 books including his latest, the fourth edition of A Practical Approach to Strength Training.