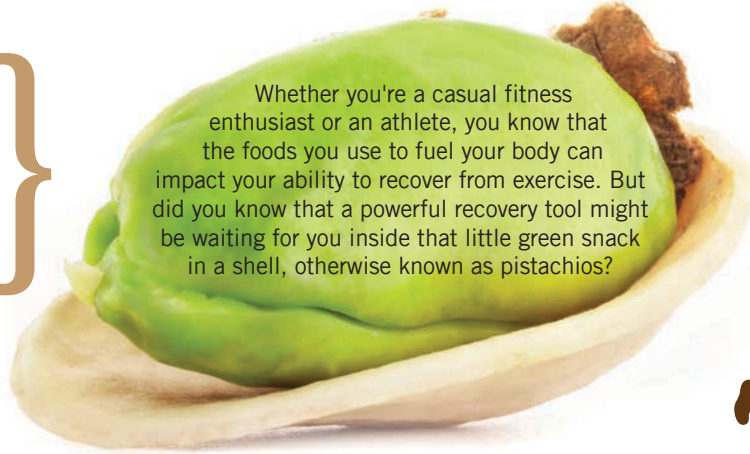


# A M E R I C A N PISTACHIOS

Post-exercise  
and everyday  
snacking tips  
for fitness  
enthusiasts  
and athletes

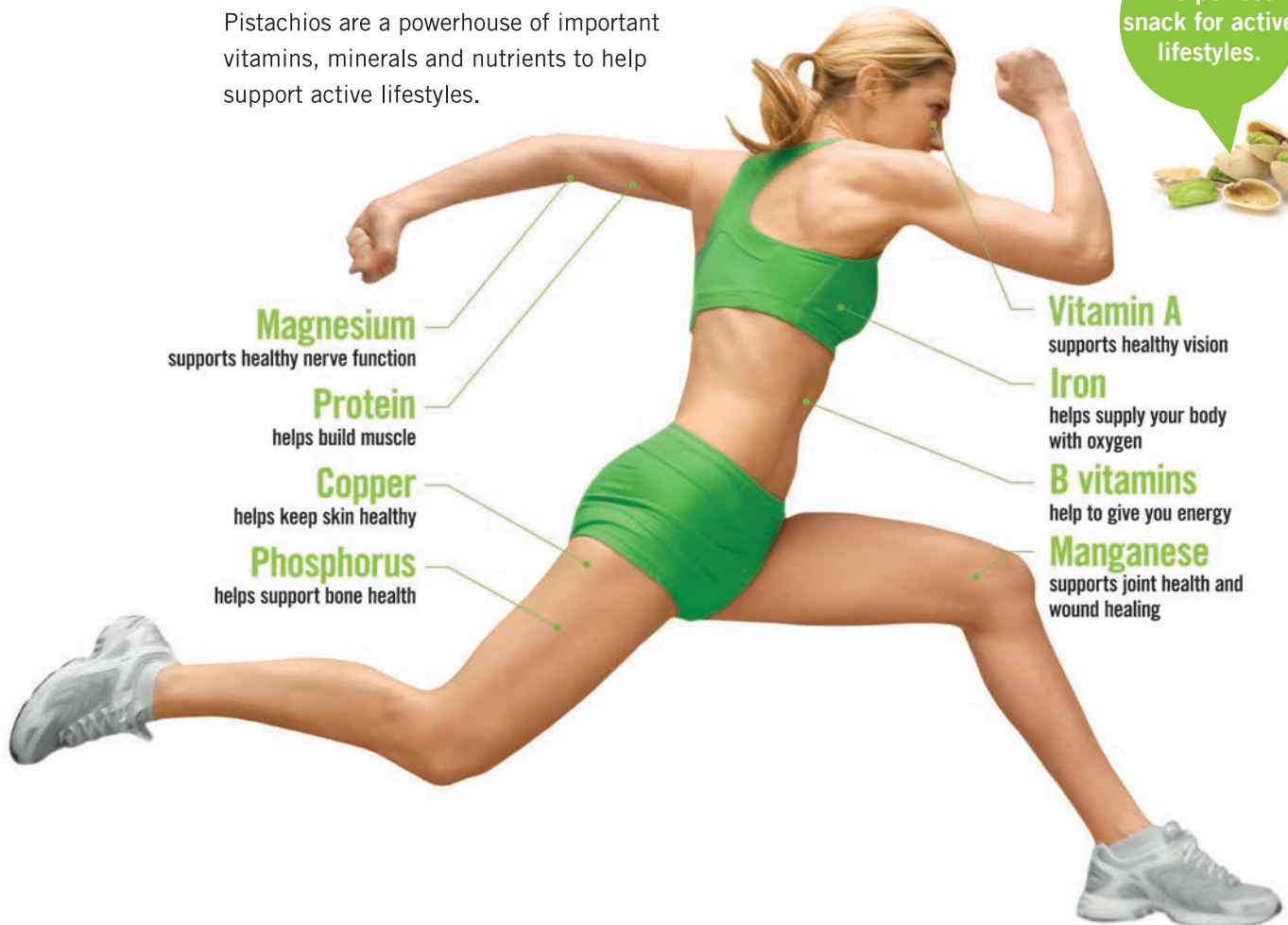
Whether you're a casual fitness enthusiast or an athlete, you know that the foods you use to fuel your body can impact your ability to recover from exercise. But did you know that a powerful recovery tool might be waiting for you inside that little green snack in a shell, otherwise known as pistachios?



## PISTACHIOS' POWER NUTRIENTS

The ideal post-exercise snack is one that is tasty, portable, satisfies your hunger, and supplies your body with energy and the important nutrients it needs to refuel. Pistachios are a powerhouse of important vitamins, minerals and nutrients to help support active lifestyles.

The perfect  
snack for active  
lifestyles.



**Magnesium**  
supports healthy nerve function

**Protein**  
helps build muscle

**Copper**  
helps keep skin healthy

**Phosphorus**  
helps support bone health

**Vitamin A**  
supports healthy vision

**Iron**  
helps supply your body  
with oxygen

**B vitamins**  
help to give you energy

**Manganese**  
supports joint health and  
wound healing

# NUTRITION TIPS FOR ATHLETES



FROM BECCI TWOMBLEY, RD, CSSD

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While adequate hydration and balanced carbohydrate intake are important post exercise, some key nutrients are often overlooked by exercisers and athletes. Here are some helpful tips and snack ideas to keep in mind, whether you've just left the gym or need a protein-based snack to keep your energy up on a rest day.

## 1

Research has shown that eating protein is beneficial for muscle recovery when consumed after intense exercise.<sup>1</sup> With 6 grams of protein per serving, pistachios make an ideal post-exercise snack. The Academy of Nutrition and Dietetics suggests refueling with a mix of protein and carbohydrates 15 to 20 minutes after a workout for optimal muscle repair and recovery and to replenish muscle glycogen stores.<sup>2</sup>

## 2

**Add Antioxidants:**

Physical activity is an essential component of a healthy lifestyle, but can sometimes lead to exercise-induced muscle damage and sore muscles from oxidative stress and inflammation. This can lead to a decline in muscle activity and delayed recovery. While further studies are needed to confirm the results, emerging evidence suggests that antioxidants may help with muscle recovery.<sup>3</sup> Pistachios are a natural source of the antioxidants lutein,  $\beta$ -carotene and  $\gamma$ -tocopherol, and laboratory studies suggest that pistachios have a strong antioxidant capacity.<sup>4</sup>

## 3

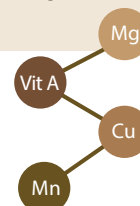
**Keep An Eye on Portions:**

While it's tempting to "go nuts" with pistachios, the correct serving size is one ounce or about 49 shelled kernels — more per serving than any other nut! While these green kernels are a calorie-dense food, research suggests that pistachio-eaters do not weigh more than people who do not eat pistachios.<sup>5</sup> Not only do pistachios take longer to crack open; they are also satiating, which keeps you feeling fuller longer.

## 4

**Focus on the Big Picture:**

Pistachios offer far more than just calories and protein. They are filled with hard-to-get nutrients like magnesium and vitamin A and other phytochemicals that are health protective. Pistachios are also a good source of copper and manganese. In fact, research shows that pistachio-eaters tend to have a diet with overall higher nutrient quality.<sup>4</sup>



## 5

**Pump up Potassium:**




The body loses potassium with sweat during intense exercise. Potassium is a major electrolyte that plays an important role in normal body functions, such as nerve function and muscle control. When potassium is lost during exercise, it can lead to muscle weakness.<sup>6</sup> Post exercise include potassium-containing foods along with water to help replenish this important mineral.<sup>6</sup> Pistachios are a source of potassium, and a one-ounce serving actually has as much potassium as half of a large banana.

## POWER PLANNING FOR POWER SNACKING

Check out these snack ideas to add some crunch, along with powerful nutrients, to your exercise and fitness plan.





### Rest Day

Resist reaching for unhealthy snacks by keeping portable pistachios at hand. Try eating these protein-based snacks every 3 hours to help maintain energy levels and curb cravings:

-  Pistachios in yogurt, cereal, salads, or smoothies
-  Greek yogurt and berries
-  Sliced turkey and vegetables or whole grain crackers

### Post-Workout

The protein and fat in pistachios can help keep hunger at bay. Pistachios also provide about 285 mg of potassium per one-ounce serving, which is about as much potassium as half of a large banana. Post exercise, remember to also include carbohydrates to replenish muscle glycogen stores. Here are some examples of balanced post-exercise snacks:

-  Hummus and whole grain crackers
-  Dried fruit and pistachios
-  Apple sauce and 1 ounce of cheese
-  Hard-boiled egg and 100% whole grain bread

<sup>1</sup>Lewis PB et al., Clin Sports Med 2012;31:255-262

<sup>2</sup>Mohr CR. Timing Your Nutrition. Academy of Nutrition and Dietetics (2012). <http://www.eatright.org/Public/content.aspx?id=6442463964>

<sup>3</sup>Sousa M, et al. Int J Food Science Nutr. 2014; 65(2): 151-163

<sup>4</sup>O'Neil CE, et al. Out-of-hand nut consumption is associated with improved nutrient intake and health risk markers in US children and adults: National Health and Nutrition Examination Survey 1999-2004. Nutr Res. 2012;32:185-194.

<sup>5</sup>Flores-Mateo G, et al. Am J Clin Nutr. 2013;97:1346-1355.

<sup>6</sup><http://www.acefitness.org/certifiednewsarticle/715/electrolytes-understanding-replacement-options/>

American Pistachio Growers is an agricultural trade association representing more than 625 grower members in California, Arizona and New Mexico.

For more information about the health benefits of pistachios, visit [AmericanPistachios.org](http://AmericanPistachios.org)