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New Research Shows High-Quality Protein in Eggs Contributes to Power, Strength and Energy

Eggs provide affordable source of high-quality protein for sustained energy

Park Ridge, Ill. (February 17, 2009) – A research review published recently in *Nutrition Today*¹ affirms that the high-quality protein in eggs makes a valuable contribution to muscle strength, provides a source of sustained energy and promotes satiety. High-quality protein is an important nutrient for active individuals at all life stages, and while most Americans consume the recommended dietary allowance (RDA) for protein, additional research suggests that some Americans are not consuming enough *high-quality* protein to achieve and maintain optimal health.^{2,3,4}

Study Findings

The *Nutrition Today* review analyzes more than 25 protein studies and concludes that the all-natural, high-quality protein in eggs contributes to strength, power and energy in the following ways:

- **Sustained energy:** The protein in eggs provides steady and sustained energy because it does not cause a surge in blood sugar or insulin levels, which can lead to a rebound effect or energy “crash” as levels drop. Eggs are a nutrient-rich source of high-quality protein and provide several B vitamins required for the production of energy in the body, such as thiamin, riboflavin, folate, B12 and B6.
- **Muscle strength:** Dietary protein intake directly influences muscle mass, strength and function in people of all ages. One egg provides more than six grams of high-quality protein (13 percent of the Daily Value), which can help individuals build and preserve muscle mass, and help older adults prevent muscle loss. Eggs are also rich in leucine, an essential amino acid that contributes to the muscle’s ability to use energy and aids in post-exercise muscle recovery.
- **Gold-standard protein:** The high-quality protein in eggs provides all of the essential amino acids our bodies need to build and maintain muscle mass. In fact, the quality of egg protein is so high that scientists frequently use eggs as the standard for evaluating the protein quality of other foods.⁵

“While many Americans may be getting enough protein, they need to focus on consuming sources of higher-quality protein. Our review of the science suggests that eggs are an ideal protein choice, plus, they are very affordable,” says Donald K. Layman, Ph.D., co-author of the research review and professor emeritus at the Department of Food Science and Human Nutrition at the University of Illinois. “In addition, individuals should focus on *when* they consume high-quality protein. Most protein consumption occurs in the evening, even though there are significant benefits to consuming more protein at breakfast, such as stimulation of muscle protein synthesis and long-lasting satiety.”

Additional Benefits of Eggs’ High-Quality Protein

The high-quality protein in eggs provides additional benefits, including:

- **Satiety & Weight Management:** A 2008 study showed that eating two eggs for breakfast helped overweight dieters lose 65 percent more weight and feel more energetic than those who ate a bagel breakfast of equal calories and volume.⁶ Another recent study found that when individuals ate high-quality protein foods for breakfast, including eggs, they had a greater sense of fullness throughout the day compared to when they ate more protein at lunch or dinner.⁷

- **Value & Versatility:** In addition to providing high-quality protein, eggs are affordable and versatile. Serving for serving, eggs cost less than other sources of high-quality protein. For an average of just 15 cents per egg, Americans get a number of important nutrients in addition to high-quality protein, including choline, riboflavin and vitamin B12, all for only 70 calories per egg.

Expert Protein Tips

Kristine Clark, Ph.D., R.D., Sports Nutrition Director for Athletics at Pennsylvania State University, advises Americans to eat more high-quality protein and shares the following tips to help busy people stay energized throughout the day:

- Plan in advance: Prepare a dozen hard-cooked eggs on Sunday so they'll be ready for you to add to meals and provide as snacks throughout the week.
- Don't skip breakfast: Breakfast really is the most important meal of the day – and protein should be a key ingredient. Eggs are faster and easier to prepare for breakfast than you may think. Pair scrambled eggs and a piece of fruit for a quick morning meal.
- Be a savvy cook: These days, everyone is trying to stick to a budget. A frittata is an affordable one-dish meal that can incorporate vegetables and other ingredients already in your kitchen, and it can be prepared ahead of time. Try the American Egg Board's [Aztec-Style Frittata](#).

Looking for More Information?

- Visit the Egg Nutrition Center at www.enc-online.org for more information on protein and the nutritional benefits of eggs.
- Visit the American Egg Board at www.incredibleegg.org for egg recipes and preparation tips.

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About the American Egg Board (AEB)

AEB is the U.S. egg producer's link to the consumer in communicating the value of The incredible edible egg™ and is funded from a national legislative checkoff on all egg production from companies with greater than 75,000 layers, in the continental United States. The board consists of 18 members and 18 alternates from all regions of the country who are appointed by the Secretary of Agriculture. The AEB staff carries out the programs under the board direction. AEB is located in Park Ridge, Ill. Visit www.incredibleegg.org for more information.

About the Egg Nutrition Center (ENC)

The Egg Nutrition Center (ENC) is the health education and research center of the American Egg Board. Established in 1979, ENC provides science-based information to health promotion agencies, physicians, dietitians, nutritional scientists, media and consumers on issues related to egg nutrition and the role of eggs in the American diet. ENC is located in Washington, DC. Visit www.enc-online.org for more information.

¹Layman DK, Rodriguez, NR. Egg Protein as a Source of Power, Strength and Energy. *Nutr Today*. 44(1):43-48.

²Wolfe RR, Miller SL. The Recommended Dietary Allowance of Protein: A Misunderstood Concept. *JAMA* 2008; 299(24):2891-2893.

³Fulgoni VL. Current protein intake in America: analysis of the National Health and Nutrition Examination Survey, 2003–2004. *AJCN* 2008; 87(5): 1554S-1557S.

⁴Paddon-Jones, D, et al. Role of dietary protein in the sarcopenia of aging. *AJCN* 2008; 87: 1562S-1566S.

⁵The use of biological value of protein in evaluating its quality for human requirements. Joint FAO/WHO/UNU Expert Consultation on Energy and Protein Requirements. 1981.

⁶Vander Wal JS et al , et al. Egg breakfast enhances weight loss. *Int J of Obesity* 2008; 32(10):1545-1551.

⁷Leidy HJ, et al. Increased dietary protein consumed at breakfast leads to an initial and sustained feeling of fullness during energy restriction compared to other meal times. *British J of Nutr*, published online September 2008.