The Benefits of 30 Grams of Protein at Breakfast

Aubree Hawley
Ph.D. Student - Nutrition/Food Science

Jamie I. Baum,
Associate Professor - Food Science

What Is Breakfast?

Breakfast is unique because it breaks a time of fasting (after a night of sleep). It is important to eat breakfast, but simply eating breakfast is only half the battle. The true victory comes when you eat a high-quality breakfast packed full of protein and nutrients [1, 2].

Unfortunately, most Americans skip breakfast. Breakfast skippers are more likely to replace the healthy nutrients they missed by skipping breakfast with “empty calories” from foods containing unhealthy fats (saturated and trans fats) and added sugar. This puts breakfast skippers at an increased risk for weight gain and chronic diseases such as cardiovascular disease and type 2 diabetes [3]. Breakfast, especially a breakfast containing 30 grams of high-quality protein, can improve your overall nutritional intake and health [4].

The Current Recommendation for Protein

The current Recommended Daily Allowance (RDA) for protein is 0.8 grams for every kilogram of body weight daily. For example, this means a 150-pound healthy person (male or female) is recommended to consume 54.5 grams of protein per day. This is the amount of protein needed to keep the body from breaking down its own proteins and to prevent protein deficiency [5]. Research has shown that eating more protein than the RDA may lead to better health [6]. Some of the health benefits of protein include better body composition (e.g., more muscle and less fat), increased satiety (e.g., decreased hunger), increased daily energy expenditure (e.g., the amount of calories you burn each day), improved bone health and decreased risk of chronic diseases such as type 2 diabetes mellitus and cardiovascular disease [7-11].

A Balanced Breakfast With Protein

It is important to consume a nutrient-packed breakfast that has at least 30 grams of protein because after not eating for 8 to 10 hours, your body is in a breakdown mode (catabolic state). Science shows that it takes 30 grams of protein to refuel the body at breakfast. This switches the body back to an anabolic state (building mode). Unfortunately, the majority of Americans eat too little protein at breakfast time and eat a lot of protein at dinner (see Figure 1, page 2). The higher amount of protein (more than 30 grams of protein) typically consumed at dinner time cannot be stored for later muscle use [4, 12].

To meet your protein needs for optimal muscle health, it is important to consume meals containing at least 30 grams of protein [6]. Several studies, in both men and women, have shown that to fully experience all the health benefits of protein you must reach a “key threshold” of 30 grams of high-quality protein [13]. This “key threshold” must be met to stimulate
a variety of processes which lead to the health benefits described above [12, 14].

**Why Is Protein Special?**

Protein is a key nutrient that is made up of amino acids which we rely on to help build, strengthen, maintain and repair our bodies. In fact, proteins are known as the building blocks of life because every cell in the human body contains proteins and requires them to function properly. There are 20 amino acids that make up protein. Your body can make 11 of them, but nine of them must be provided through the diet. These nine amino acids are essential amino acids [2].

**The Source of Protein Matters**

Surprisingly, not all protein sources provide all of the amino acids. A high-quality protein, also known as a complete protein, is defined by the proportion of essential amino acids that it contains to satisfy our body’s needs. Animal protein sources, such as milk, beef and eggs, are the highest in quality and are also “protein dense” (Table 1). Protein-dense sources provide optimal protein for a relatively low caloric cost (low number of calories). For example, it takes 770 calories of creamy peanut butter and only 170 calories of lean ground beef to reach the “key threshold” of 30 grams of protein. Animal proteins, particularly whey protein, can promote gains in muscle mass and increase satiety (fullness) more efficiently than plant proteins [12-14].

**Table 1. Smart Protein Choices**

<table>
<thead>
<tr>
<th>Food Source</th>
<th>Serving Size</th>
<th>Protein (grams)</th>
<th>Calories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isolate Whey Protein</td>
<td>¼ cup</td>
<td>27</td>
<td>154</td>
</tr>
<tr>
<td>Ground Beef, 95%</td>
<td>4 ounces</td>
<td>29</td>
<td>185</td>
</tr>
<tr>
<td>Grilled Skinless Chicken Breast</td>
<td>4 ounces</td>
<td>34</td>
<td>179</td>
</tr>
<tr>
<td>Hard Boiled Jumbo Egg</td>
<td>1 egg</td>
<td>8</td>
<td>92</td>
</tr>
</tbody>
</table>

**Vanilla Cream Overnight Oats**

Makes 1 serving

*Nutrition Facts: 507 calories, 14g fat, 51g carbohydrates, 35g proteins, 9g fiber*

**Ingredients:**
- ¼ cup steel-cut oats
- ½ scoop of vanilla protein powder
- 1 tablespoon peanut butter or almond butter
- ¼ teaspoon cinnamon
- ½ teaspoon vanilla extract
- Pinch of salt
- ½ cup low-fat milk (cows, soy, almond, etc.)
- ¼ cup plain low-fat Greek yogurt
- ½ cup berries

**How to make it:**
1) Place oats, powder, nut butter, vanilla, cinnamon and salt in bowl. Heat and pour in the milk. Stir ingredients until everything is evenly coated. Cover overnight in the refrigerator.
2) In the morning, stir in half of the yogurt and heat for 1-2 minutes in the microwave. Top with remaining yogurt, berries and flaxseed. Add water for a thinner oatmeal. Enjoy!
Vegan-Friendly Protein Breakfast Smoothie
Makes 1 serving

Nutrition Facts: 351 calories, 13g fat, 35g carbohydrates, 28g proteins, 17g fiber

Ingredients:
• ½ cup ice
• 1 tablespoon chia seeds
• 1 teaspoon vanilla
• 1 tablespoon cocoa powder
• 1 scoop pea chocolate protein powder
• ½ banana
• 1½ cups pea, soy or almond non-dairy milk

How to make it:
1) Pour milk and ice into a blender. Place banana, powder, cocoa powder, vanilla and chia seeds into the blender.
2) Blend to mix.

Egg and Veggie Scramble
Makes 1 serving

Nutrition Facts (includes tortilla): 444 calories, 27g fat, 19g carbohydrates, 28g proteins, 2g fiber

Ingredients:
• 3 eggs
• 1 teaspoon olive oil
• 1 pinch of salt
• ½ teaspoon pepper
• 1 ounce shredded cheese
• 1 cup mixed veggies: spinach, onions, bell peppers, arugula, mushrooms, etc.
• Optional: whole-grain tortilla/whole grain light English muffin

How to make it:
1) Heat olive oil over medium-high heat in a skillet. Add veggies and sauté.
2) In a mixing bowl, beat together eggs. Add egg mixture and seasonings to skillet. Gently mix until eggs are set.
3) Mix in cheese and serve immediately or place mixture on your favorite whole-grain tortilla or light English muffin. Enjoy!

References


**AUBREE HAWLEY** is a Ph.D. student - nutrition/food science at the Department of Food Science, University of Arkansas System Division of Agriculture in Fayetteville. **DR. JAMIE I. BAUM** is an associate professor - nutrition with the Department of Food Science, University of Arkansas System Division of Agriculture in Fayetteville.