



## Start Your Day With Protein

### By Dr. Ritamarie Loscalzo

Start the day with a protein-rich, low-carbohydrate meal in order to maximize the rhythm of cortisol, leptin, and insulin. Consuming morning protein helps keep your hormones balanced, increase your metabolic rate, and energize your day.

You may have digestive or stress issues that are affecting how many amino acids you're absorbing. The best source of protein is greens and the most absorbable sources are blended greens or juiced greens. To start your day with protein, you can load up on readily available amino acids with a green drink, use a plant-based protein powder, or combine the two for a double whammy.



Eating green food and chia seeds with optional protein powder is the ideal way to start the day. This combination will cut down on food cravings late in the day and after dinner.

The reason that it's important to avoid the carbs in the morning and eat protein first thing in the morning is because of the cortisol peak that occurs during the early morning hours. Cortisol's job is to jumpstart your metabolism for the new day. Part of that job involves breaking down muscle in order to create new glucose (a source of energy). If within an hour of getting up you give your body protein, then your cortisol is going to feed off that new, readily available protein (especially if it's in amino acid form as you would have with greens) and break that down into sugar instead of breaking down muscle.

So, to avoid the morning breakdown of muscle from cortisol, eat protein within the first hour of waking. In fact, Tim Ferris, in his book, *The 4-Hour Body*, recommends eating 30 grams of protein within 30 minutes of getting up. Tim is not a scientist, nor a doctor, but his book is based on real experiments on a control group of 1 – himself. It's worth a try though, and it's not hard to do.

A quart of green juice with a scoop of protein powder and some chia seeds is more than 30 grams of protein. Play around with that and see how it goes.



## The Benefits of Protein for Breakfast

1. Turns metabolism on and stabilizes hypoglycemia later in the day, up to 30% increase for 12 hours.

*Guyton's Textbook of Physiology 1991: 793-4*

2. Suppresses hunger over a 24-hour period. Other researchers have found similarly.

*Stubbs, RJ, Van wyk, MC, Johnstone, AM, Harnoron CG Breakfasts high in protein fat or carb: effect on within day appetite and energy balance: Eur J Clinical Nutrition 1996 Jul;50(7):409-17.*

3. Morning protein prevents leptin fluctuations later in the day. Morning carbohydrates throw off your leptin cycle and cause an earlier than usual rise followed by a rapid decline. This leads to cravings after dinner, especially for carbohydrates.
4. Morning protein enhances the production of growth hormone.
5. Early morning protein enhances glucagon production which blunts excess insulin and decreases insulin resistance.
6. Using functional magnetic resonance imaging, researchers at the University of Missouri found that eating a protein-rich breakfast reduces the brain signals controlling food motivation and reward-driven eating behavior.
7. Cortisol's role is to create new glucose from storage. If you eat protein, it's used as fuel rather than breaking down your muscle.
8. Protein in the morning has been said to reduce leptin resistance.
9. Meals which only consist of proteins eaten on an empty stomach provide a larger increase in the production of growth hormones and insulin than meals with protein, carbohydrates, and fats. A protein meal also lowers the production of cortisol. This was discovered by endocrinologists at the University of Erlangen-Nuremberg in Germany in a human study. The breakfast consisting of pure amino acids caused a significant growth hormone peak.



## References

- *Mastering Leptin* by Byron Richards and Mary Guignon Richards.
- *The Leptin Diet* by Byron Richards.
- *Guyton's Textbook of Physiology* 1991.
- *The addition of a protein-rich breakfast and its effects on acute appetite control and food intake in 'breakfast-skipping' adolescents.* HJ Leidy and EM Racki, Department of Dietetics and Nutrition; University of Kansas Medical Center (KUMC), Kansas City, KS, USA *International Journal of Obesity* (2010) 34, 1125–1133.
- Breakfast led to increased satiety through increased fullness and PYY concentrations in 'breakfast skipping' adolescents. A breakfast rich in dietary protein provides additional benefits through reductions in appetite and energy intake. These findings suggest that the addition of a protein-rich breakfast might be an effective strategy to improve appetite control in young people. *International Journal of Obesity* (2010) 34, 1125–1133; doi:10.1038/ijo.2010.3; published online 2 February 2010.
- Stubbs, RJ, Van wyk, MC, Johnstone, AM, Harnoron CG *Breakfasts high in protein fat or carb: effect on within day appetite and energy balance:* *Eur J Clinical Nutrition* 1996 Jul;50(7):409-17. Other researchers have found similarly.