

Protein- More Is Not Always Better

Contributed by Robbie Durand
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Groundbreaking Research! 20 grams of Egg Protein Maximally Stimulates Protein Synthesis Rates

To examine the effect of how different dosages of egg protein powder affected protein synthesis rates; researchers had young healthy men who had previous resistance training experience perform intense resistance exercise and consume a egg protein drink that contained either 5, 10, 20, or 40 grams of egg protein. Interestingly, they found that increasing protein intake stimulated protein synthesis in a dose dependent manner up to 20 g of dietary protein, after which there was no further increase in protein synthesis (40 grams did not stimulate protein synthesis greater than 20 grams). This data suggest that there is a maximal rate at which dietary amino acids can be incorporated into muscle tissue and that with increasingly higher concentrations of amino acids, there is no further stimulation of muscle protein synthesis. So how many times in a day could someone consume such a dose (20 grams) to stimulate muscle anabolism that would ultimately translate into muscle growth? The researchers speculated that 5-6 times daily of small 20 grams of protein would be the optimal measure to increase anabolism and increase muscle mass. One thing that should be addressed is that they used egg protein which many bodybuilders do not use anymore; whether this applies to whey protein is not known.

Moore DR, Robinson MJ, Fry JL, Tang JE, Glover EI, Wilkinson SB, Prior T, Tarnopolsky MA, Phillips SM. Ingested protein dose response of muscle and albumin protein synthesis after resistance exercise in young men. *Am J Clin Nutr.*