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Best Time to Drink Your Protein Shake



So you've bought yourself a quality whey protein powder – now what?

I see it all the time. People get their hands on a protein powder but they don't have a clue how to use it optimally. Most of the time people take way too much of the stuff, caught up in the "more is better" mind-set.

The result of this overconsumption of protein powder can cause bloating and digestion problems, and is a big waste of money. If you're unnecessarily downing 5 or 6 thick protein packed shakes a day then you're going to go through an expensive tub of whey faster than a tub of icecream at a Weight Watchers meeting.

So, in today's post I'm going to show you how to get the most out of your whey protein shakes by covering the best times to drink them, and the ideal amount to take... its less than you think!

Before I get into the when, let's talk about how much.

Your muscles are in a constant state of synthesising and breaking down muscle proteins, only when protein synthesis exceeds breakdown can muscle growth occur. This state is called a positive protein balance and this is the process by which muscles grow.

Weight training increases protein synthesis, but only if sufficient amino acids from the diet are present will synthesis exceed breakdown, resulting in muscle hypertrophy. Whey protein powder is a very high quality, high biological value protein source that is rich in these muscle building amino acids.

So how much protein is optimal for muscle growth? Scientific studies have been conducted to find out how different doses of protein affect muscle protein synthesis levels. One such study conducted by the Exercise Metabolism Research Group, Department of Kinesiology, of McMaster University in Canada, had a group of young men perform intense resistance weight training and had them consume a whole egg protein drink containing varying doses (0, 5, 10, 20, or 40 grams of protein) post workout.

The study found that maximal protein synthesis after training was achieved with around 20g of protein. The difference between ingesting 20g and 40g was minimal, although there was a slight increase in protein synthesis between these two doses as seen in the graph below.

I know what some people are thinking at this point. "But I've seen massively muscled pro bodybuilders eating way more than 40 grams of protein per meal." That's true, but what is also true is that pro bodybuilders are taking large amounts of anabolic steroids. Combine training with steroids



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and there is a dramatic increase in protein synthesis, a much greater increase compared with natural lifters. Thus, the consumption of more protein is needed to meet the demand.

As you can see from the research above, anywhere from 20 to 40 grams of protein is optimal to maximally stimulate muscle protein synthesis. So if the simple whey protein supplement provides 16 grams of protein per scoop, you know that two scoops would provide an ideal dose of 32g and anything more is really a waste.

[NOTE: Some sentiments contained within "What We're Reading" articles may not strictly conform with PROJECT: PFC's nutritional outlook. We read articles containing opposing information all the time and derive our nutritional philosophies from the latest science, the opinions of experts worldwide and our anecdotal experiences in the field. We keep an open mind and a strong affinity for fact-based evidence to help make the world of nutrition "Simple Again" for you.]

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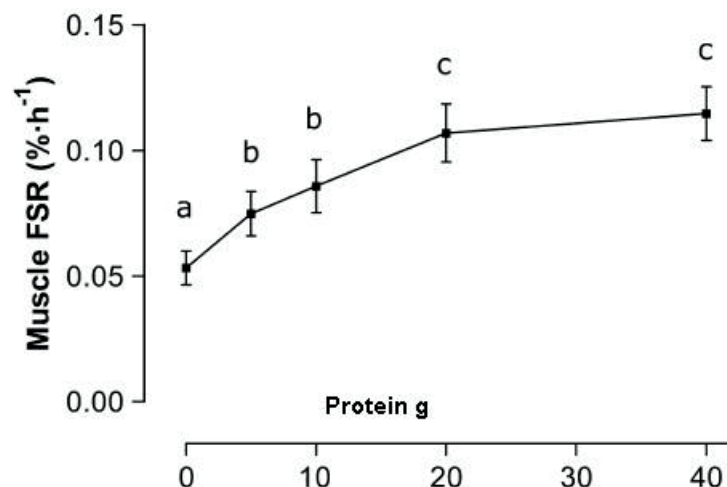
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Bottom Line

As you can see from the research above, anywhere from 20 to 40 grams of whey protein is optimal to maximally stimulate muscle protein synthesis. So, if for example your whey protein supplement provides 16 grams of protein per scoop, you know that two scoops would provide an ideal dose of 32g and anything more is really a waste.

I recommend shooting for at least 30 grams of protein in your shakes.

It's time to stop with the 4 – 5 scoop monster shakes. As these studies show, there is really no need to go much over 40 grams, even after working out.

Now that you know the ideal amount to use, let's look at the best times of the day to drink your shakes. They are;

1: First Thing in the Morning

I don't know about you, but I'm not really into cooking, especially first thing in the morning. It's common to see bodybuilders cook egg dishes in the morning. Things like omelette, scrambled eggs, Poached eggs and boiled eggs are extremely high quality protein meals. But for me, I want something faster and easier to prepare upon waking that provides just as much high quality protein.

A whey protein isolate shake offers a fast, easy and delicious protein source at breakfast.

First thing in the morning is one of the best times to drink a protein shake because you've been without food for 7 – 9 hours while you sleep. To maintain a positive protein balance it is crucial that you consume a high Biological, fast absorbing protein source first thing in the morning. Whey protein is the perfect solution.

A bowl of oats, shredded wheat or Granola with a protein shake is a healthy muscle building breakfast.

2: Pre Workout

Drinking a whey protein shake before training can be beneficial but is not really necessary.

If you've eaten a whole food meal consisting of a lean protein and carbohydrate at least 2 hours before training then a pre workout shake is not necessary, because there will be enough nutrients circulating to fuel your workout and reduce muscle protein breakdown.

However, if you're pushed for time and it's been 3 hours or longer since you have eaten then drinking a protein shake just before your workout is recommended. This will ensure there are plenty of amino acids in circulation to reduce muscle protein breakdown during your workout and will aid in the recovery process post workout.

3: Post Workout

When it comes to protein intake there is no time more important than after your workout. Your workout will stimulate muscle protein synthesis AND muscle protein breakdown. Without sufficient protein after training protein synthesis will not exceed breakdown, the result being little to nothing in terms of muscle growth.

After training your muscles they are in an anabolic state for around 48 hours. The first two hours of this anabolic state is when your muscles are most responsive to amino acids from protein consumption. Any protein intake during this 48 hour period will go to the repair and growth process, but maximum protein synthesis is achieved within the first two hours post workout.

This time period is sometimes referred to as the "post workout window" and the best way to take full advantage of this time is to consume a high quality fast absorbing protein such as whey.

Protein is in high demand after training, your muscle urgently need protein for the repair and growth process.

Other Times of the Day as Part of a Meal:

It is best to eat whole healthy foods and vary your protein sources throughout the day. However, one of your daily meals can be a protein shake with some carbs, or if your schedule does not allow for you to eat a solid food meal at any point during the day then a protein shake would make a great substitute.

Before bed

Drinking a protein shake before bed is a good way to keep your muscles fed with amino acids while you sleep, to stave off muscle protein breakdown. It's a particularly good idea just before bed on training days to get the most protein synthesis over the 48 hour post workout period.

If you choose to drink a shake before bed go with casein instead of whey. Casein protein turns to a gel like consistency when it hits the stomach. This dramatically reduces the digestion and absorption rate, resulting in a slow and steady release of muscle building amino acids into the bloodstream throughout the night.

So there you have it, a quick guide on how much whey protein to take and the most optimal times of the day to drink them. You should only ever really need to drink 2 – 3 shakes per day. In the morning, post workout and at some point during the day as part of a meal.

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