

Conversation Corner



A Newsletter for Fitness Enthusiasts

Protein, Protein & Another Protein?

Now here is the most abused and misunderstood subject in fitness

Abused

Abused as in supplement companies and their continuous wasted efforts in formulating a “better protein” that, in the end, has absolutely no greater value to the user than a standard, inexpensive grouping of all the necessary amino acids—including what is found and delivered in a piece of chicken. However these updated, specialized formulations greatly enhance the ability to develop “cool” marketing campaigns in order to out-duel the competitor and offer the rationale for the higher price point.

I mean, how many ways can you spin the protein story? “New breakthrough protein: cross filtered 25 times, ionized 12, temperature controlled separation, collected during the final amino acid extraction, our chemist hangs upside-down, sings ‘Glory, Glory Hallelujah’ and recites three Hail Mary’s.” Come on, enough is enough! They are the same old amino acids in the end—the exact ones that we get from any complete protein source.

At the end of the day, the only thing that is important to a normal non or light exercising human is the daily amount of protein intake, of which most people consume twice their requirements and therefore is not an issue. For fitness buffs or athletes, they too generally consume well over their requirements. However, the timing of ingestion for this group can be an important consideration when maximizing training outcomes.

Misunderstood

Misunderstood as in the general population thinks everything in a powdered form, shake or bar, is a protein supplement. And there are always the standard questions: “Should I eat more protein now that I am working out?” “Should I go on a high protein diet to lose weight?” And in my world of parents with little athletes, the most common question is, “Little Johnny needs to gain weight, should he eat more protein?” So think about that one—“Should I go on a high-protein diet to lose weight?” And then in the

same breath, “Should my son eat more protein to gain weight?”

Media contribution

You have heard me say many times that when it comes to nutrition, the old saying, “A little bit of knowledge can be dangerous,” is never more spot on. People’s sources of information are fitness magazines or neighborhood and gym mavens (know-it-alls that like to talk and for some strange reason people listen to these untrained “gym scientists”). I wish I could simply convince everyone to just look at the pictures in the magazines and leave the true science to us. Believe me, we have to prove we are right before we can publish anything, where the public media’s job is to present anything new or different. And in the case of protein, it is the stories that are new not the science.

So, what do you need to know about protein in your diet?

Amino acids (AA) make up proteins and protein makes up the tissues of our lean body mass (LBM). Throughout our lives our bodies are constantly replacing these tissues, so we have a daily requirement for protein. What most people don’t realize is that the body uses many of the AA from the tissues it is replacing in order to rebuild the new tissue. Therefore, requirements are relatively small when compared to the amount of tissue turnover.

Also, protein is the only macronutrient that can be used for energy and building tissues, so dieting and exercising have an effect on our necessary daily protein intake. That said, the typical American diet far exceeds almost any person’s protein requirements.

Requirements

If you meet your daily requirements of protein with food or supplements, you are good to go if you are the average person pursuing just about any goal; you do not need to be concerned about much else. Just follow the guidelines in Table 1.

The one exception to the requirement table is the weight or body fat conscious athletes in the final weeks of contest preparation when they are constantly reducing calories and increasing activities.

During this period, the body must have an option in the use of available food for energy or muscle support. The body does not have a choice with dietary carbohydrates or fats, making them the only dispensable calories. It is quite common to see these athletes consuming the majority of their calories from protein in the final weeks before competition.

However, during the off-season, when athletes can return to normal food intake (protein at the anabolic requirements listed in the table below and energy needs met primarily with carbohydrate and fats), a better anabolic environment exists compared to maintaining this high protein intake all year. In other words, they will put on more muscle when protein is lowered back to requirements and will use carbohydrates and fats to make up the remaining daily calories.

Recommendations of Specific Protein Dosages

The recommendations are based on the majority of energy requirements being met by dietary carbohydrates and fats.

Table 1 – Protein Dosage Recommendations for Athletes

	Strength Athletes/ Off-Season Bodybuilders	Active Recreational Athletes	Endurance Athletes
Minimum acceptable intake	1 g/kg/d	1 g/kg/d	1.4 g/kg/d
Adaptation period	1.6 to 2 g/kg/d	1.2 to 1.8 g/kg/d	1.6 to 2 g/kg/d

The *active recreational athletes'* category also includes other competitive athletes not attempting body composition changes.

The *adaptation period* is defined as significant physiological changes occurring due to participation in a new regimen, progressive intensity, or high-intensity training. The adaptation period presumes that factors affecting protein requirements may be additive. Athletes participating in aerobic and anaerobic (mainly strength training) activities may need intakes at the upper end of the ranges.

Appropriate use of protein supplements/substitutes

As discussed, most of us do not need to add protein to our normal intake, but there are several good reasons to keep the Apex protein supplements / substitutes or other Apex powders in your kitchen.

To enhance recovery after exercise. One defensible reason to ingest supplemental protein is to get amino acids quickly into the blood following exercise which only a liquid delivery can accomplish. Research using protein and carbohydrate supplements before and after weight training has shown an enhancement of anabolic hormones compared to a non-supplemented state. Theoretically, this would enhance recovery, allowing the body to spend more time on building muscle rather than on repair.

In weight reduction programs. Protein supplements / substitutes would replace whole food proteins to eliminate unwanted calories and help stave off loss of LBM during aggressive body-fat reduction, as cosmetic athletes must do to compete.

Convenience or preference. Protein supplements can be used in situations when whole food is not available or not an option, as with early morning workouts or when having any pure carbohydrate meal in which you need to add some protein. There's nothing like Sunday morning donuts and a few Apex protein tablets or a pure low-calorie Apex Whey drink.

Cost. Often the cost per gram of protein in a protein supplement is less when compared to foods.

In summary

Don't waste money on "designer proteins," keep close to the intake recommendations in order to maintain the perfect environment for building muscle (leaving plenty of room in your daily calories for carbs and fats, which increases natural insulin, growth hormone and testosterone production); use liquid meals containing both carbs and protein (Apex Fit Drink Mix / High Performance) for before and/or after training; keep protein supplements / substitutes handy for times food proteins are unwanted or not available.

I am so sick of designer protein ads!

Happy New Year!