



High-Quality Goat Milk Protein:
The Healthier and Smarter Choice for Your Body



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PART 1: You and Your Protein

Joe Kasper, Ph.D.,
Exercise Physiologist and Clinical Nutritionist

The benefits of using protein and how to get the most from a high-quality protein supplement (even if you never used one before)

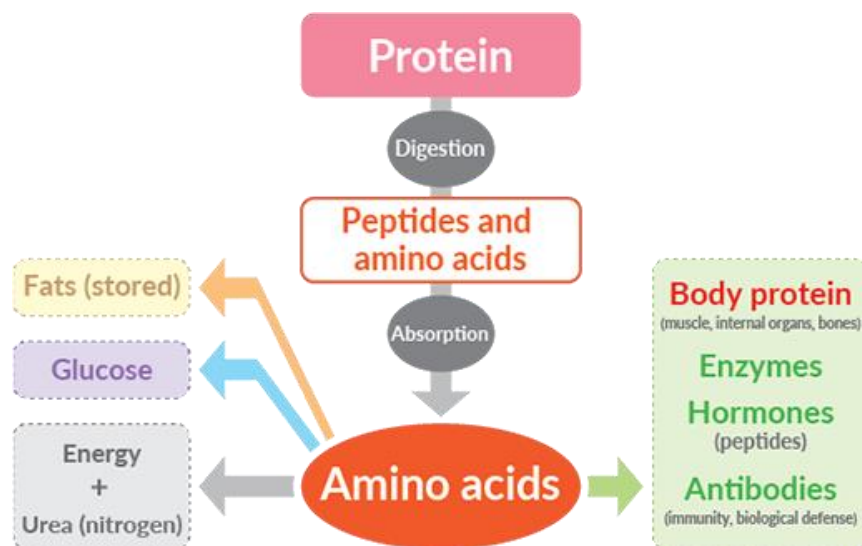
Proteins are the major life force and structural component of the human body. Our body uses protein to build and repair tissues. Protein forms the basis of our brain cells, muscles, cartilage, organs, skin, hair, nails, blood, hormones, enzymes, and more. Around half of our body's dry weight is made up of protein.

Proteins are made up of chains of smaller building blocks called amino acids. Amino acids are needed for building new proteins, forming compounds like neurotransmitters (e.g., serotonin) and hormones (e.g., adrenalin), and energy. Some amino acids can be made by the human body (*non-essential amino acids*), while others must be supplied through our diet (*essential amino acids*).



Did you know?

Your body uses **protein** to build and repair tissues. You also use **protein** to make enzymes, hormones, and other body chemicals. **Protein** is an important building block of bones, muscles, cartilage, skin, and blood.



There are nine essential amino acids, namely histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan and valine, which cannot be synthesized by the human body and must be provided through food or the correct supplementation. Protein insufficiency can affect all organs and overall growth and development.

Sources of Protein

In fact, since goat and human digestive systems are so similar, we can process foods made from goat milk much more easily than milk from any other species.



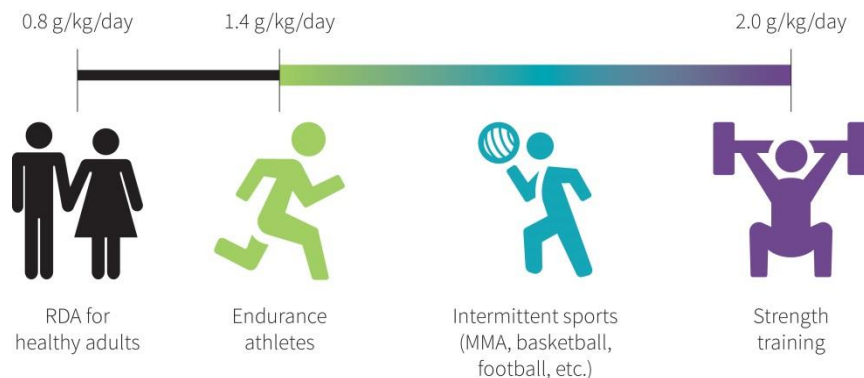
Why take a protein supplement?

For some individuals, protein supplements form part of an overall nutrition plan for general health and wellbeing. This can be particularly helpful for people with busy lifestyles or whose diets may be lower in protein.

When it comes to burning fat and creating a great physique, protein is the king of nutrients because it can reduce hunger and speed up metabolic rate.

Endurance athletes in heavy training, athletes trying to gain muscle mass and strength, and athletes in the initial stages of training all have higher protein needs than the general, non-exercising population and may therefore benefit from a supplement.

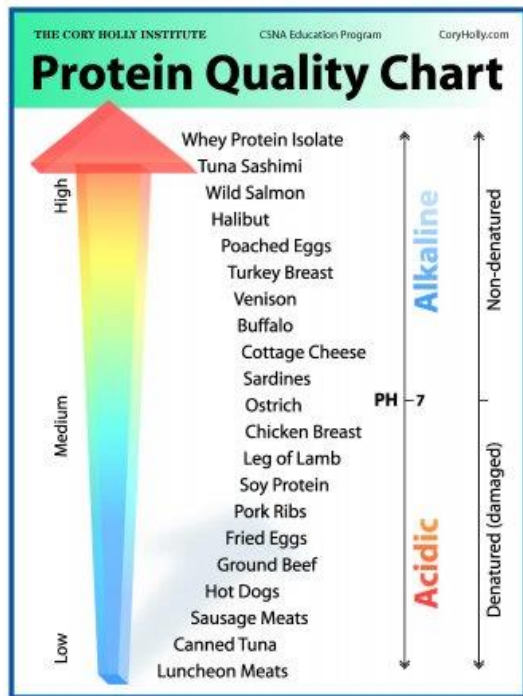
Athletes who follow vegetarian or vegan diets or do not consume dairy foods (such as those with lactose intolerance issues) may have difficulty meeting their protein requirements for optimal performance, especially if their meals are not exceptionally well planned. A protein supplement can therefore address any deficiencies that may lead to compromised or sub-optimal athletic performance.



Suggested daily protein intake.

What factors determine protein quality?

When considering taking a specific protein supplement for your health and performance, it is not simply a matter of taking sufficient quantity. It is also very important to choose the right quality of protein.



Protein quality is based on its nutritional value, which is determined by its unique amino acid profile. Proteins with a high biological value (HBV) are recommended wherever possible. Animal-based proteins, such as dairy foods, eggs, meat, poultry, fish, and isolated soy protein, are regarded as HBV as they contain all of the essential amino acids required by the human body. Animal proteins are also easy to digest. They are therefore regarded as a complete dietary protein.

In contrast, plant-based proteins only contain only some of the essential amino acids that they body needs. They are also harder for the human body to digest. Accordingly, they are regarded as incomplete proteins with a lower biological value.

How do athletes use protein to enhance performance?

Protein and amino acids indirectly affect performance by building muscle to improve performance.

Athletes often follow guidance from professional coaches and dieticians and their knowledge of the scientific research regarding what specific amino acid profile will work best for their needs.

For example, the essential amino acid leucine plays a vital role in activating muscle protein synthesis. The leucine content of foods varies but some foods are naturally high in leucine, such as milk (and milk protein) and red meat. Research suggests that just 2-3g of leucine maximally stimulates protein synthesis equivalent to around 20-25g of HBV protein comprised of other amino acids. An athlete may therefore choose or be instructed to take a specific amino acid such as leucine to assist muscle growth.

Furthermore, athletes often carefully time their protein intake. Research suggests that each time protein is consumed, a small spike in muscle synthesis occurs, with 20-25g of HBV protein producing a maximal response. Including protein in meals and snacks across the day will produce multiple spikes in muscle protein synthesis. Eating protein in the hour following exercise can help to prolong the protein synthesis response to exercise, helping to promote muscle gains and minimise muscle losses or breakdown. Accordingly, athletes often follow a specific regime for timing their protein consumption.

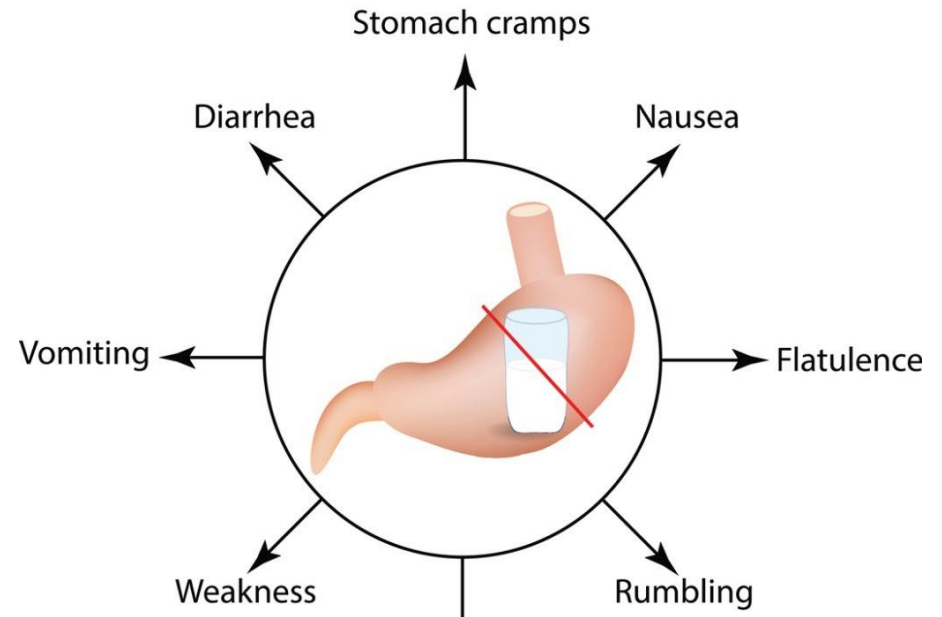


Are there any issues to be aware of?

As noted, plant-based proteins are generally less nutritious and are more difficult to digest.

While animal-based proteins have a HBV, some people with lactose sensitivity or intolerance experience difficulties when taking protein supplements made from cow milk.

Many commercial, mass-produced proteins also have 'fillers' and unhealthy chemicals added. It is therefore important to pay careful attention to the ingredients of your protein supplement to ensure that you are taking a high-quality, pure product that will be good for your body and the goals you want to achieve – be they to boost general nutrition and health levels or improve muscle growth and physical performance.





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PART 2: Goat Protein - The Healthier and Smarter Choice

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Exercise Physiologist and Clinical Nutritionist

The science behind why goat protein works much more efficiently in the human body than cow protein

Why does the type of milk that a protein is made from matter?

Given how vital protein is for the human body, the quality of the protein we consume, and our body's ability to process it, is extremely important.

As noted above, animal proteins have higher nutritional levels in terms of essential amino acids and are easier for humans to digest than plant proteins. Therefore, finding an animal-based protein supplement is preferable to one that is plant-based.

However, when it comes to selecting an animal-based protein product, there are a number of factors to consider.

Milks from different mammals have different compositions, and human bodies tolerate these compositions differently.

Most protein products on the market are made from cow milk. While the advantage is that these are an animal-based protein product and thus more nutritionally dense than a plant-based protein, cow milk proteins come with a range of disadvantages and in some circumstances can do more harm to the body than good.



What are some of the problems with cow milk protein products?

Cow meat and milk products are extremely widespread across America and the world for obvious reasons. Due to their large size and mass production, their products can be used to feed enormous numbers of people. However, cows are often fed high levels of hormones, treated horribly at slaughterhouses, and even dairy cattle often dislike the experience of being milked and exhibit high stress levels during the process (unlike goats, who actually enjoy the milking process).

However, the fact that cows are so physiologically different to us can create problems when we consume cow milk products. For example, it is nearly impossible for the human body to fully digest and assimilate protein from a cow to use for energy, muscle building and performance without stimulants being added to the protein.

Cow milk also creates an inflammatory response in the human body. Cow milk contains two main types of protein – casein and whey. People who are intolerant of cow milk are often sensitive to one of the proteins within it, known as A1 casein, and lack the ability to digest it.



A1 casein is particularly inflammatory for many people, and inflammation itself is a root cause of many diseases. A1 casein can cause symptoms like diarrhea and constipation and contribute to gastrointestinal issues such as irritable bowel syndrome (IBS), leaky gut, colitis, and Crohn's Disease. A1 casein has also been linked to less-obvious conditions such as acne, autoimmune diseases, and skin problems such as eczema.

In fact, cow milk is one of the leading allergies observed in children, and can persist throughout adulthood. Aside from A1 casein, cow milk contains over 20 other allergens that can cause allergic reactions. Symptoms of allergic reactions can include abdominal cramping and colic (often seen in infants), skin conditions such as hives and atopic dermatitis, and runny noses (which can lead allergic reactions to cow milk to be confused with other causes, such as seasonal allergies).

Why is goat milk a better option?



Goats are anatomically and physiologically very similar to humans. In fact, many medical schools in the USA and around the world use goats to train their students due to their similarities with us.

For example, at birth a goat weighs about 9 pounds (4 kg) – very similar to a human newborn – and they grow to be around 120-200 pounds (54-90 kg) as adults, which is again very similar to the average weight range for human adults.

In comparison, a cow is a very large animal that at birth is about 100 pounds (45 kg) and grows to 1200 pounds (544 kg) or more, making them quite dissimilar in size to humans. The way in which they digest their food also differs greatly to human digestive processes. These differences are responsible for some of the negative effects that many people experience when they ingest cow milk products.

However, goat milk provides an excellent alternative as a great source of highly digestible animal-based protein.

In fact, since goat and human digestive systems are so similar, we can process foods made from goat milk much more easily than milk from any other species.

Upon replacing dairy sources from cattle with dairy sources from goats, athletes and non-athletes alike have resolved physiological issues ranging from brain fog to joint pain. Individuals also often an enormous difference in workout quality and recovery speed in as few as 24 hours.

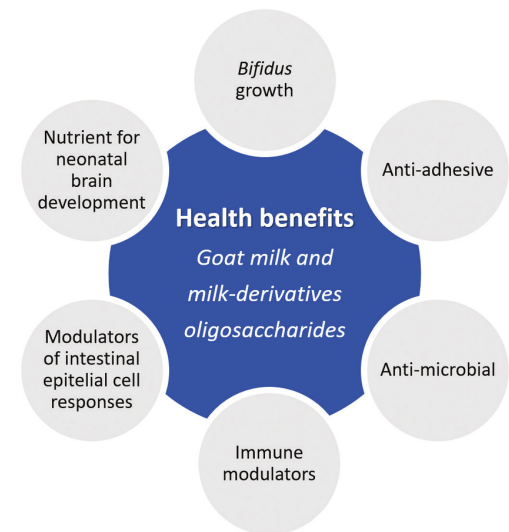
What is the nutritional profile of goat milk?

Compared to cow milk, goat milk contains much less sugar (lactose), has 13% more calcium, 25% more vitamin B6, 47% more vitamin A, and 134% more potassium, making it more nutritious overall.

The casein in cow milk is often considered more dangerous than the casein in goat milk as most cow milk contains far more A1-beta caseins, which – as noted above – are frequently associated with an increased immune response.

In contrast, goat milk contains A2 casein, which does not produce inflammation. In terms of its composition, goat milk has been shown to be the closest milk to human breast milk. The elevated vitamin A levels may also promote skin health and appearance and fight conditions such as acne.

Goat milk is also naturally high in essential amino acids, such as *L-arginine*, and the powerful antioxidant *L-glutathione*, which is comprised of three amino acids (L-cysteine, glycine, and L-glutamate) and plays a key role in breaking down nutrients and regulating many biological processes, including our immune response.



What else makes goat milk easier for humans to process?

Protein and recovery sources derived from goat milk are incredibly like human milk in composition and are thus easily digestible – even during or after tough workouts and athletic competitions.

The composition and size of the fat globules in goat milk are five to 10 times smaller than those found in cow milk. Because of this, the human body can digest goat's milk in as few as 20 minutes, versus a lengthy two to three hours to digest cow milk.

Researchers from the University of Granada discovered that one reason goat milk is so easily processed by the human body is due to its hypo-allergenic properties. Their research showed that, like human milk, goat milk contains less lactose and less alpha-s1 casein, which again is a protein commonly associated with a heightened immune response to dairy.

In addition, Norwegian researchers discovered that when exposed to the human digestive enzymes found in stomach and intestinal juices, the beta-lactose- globulin in goat milk is digested three times faster than the beta-lactoglobulin in cow milk. Like casein, beta-lactoglobulin is a milk protein that can cause allergic reactions.

If you would like to know more, the following article is an excellent source of information on the nutritional profile and benefits of goat milk:

Lima, Teixeira-Lemos, Oliveira, Teixeira-Lemos, Monteiro, & Costa (2017), *Nutritional and Health Profile of Goat Milk Products: Focus on Health Benefits of Goat Milk*.

<https://www.intechopen.com/books/goat-science/nutritional-and-health-profile-of-goat-products-focus-on-health-benefits-of-goat-milk>



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PART 3: What makes Muscle Goat Protein unique?

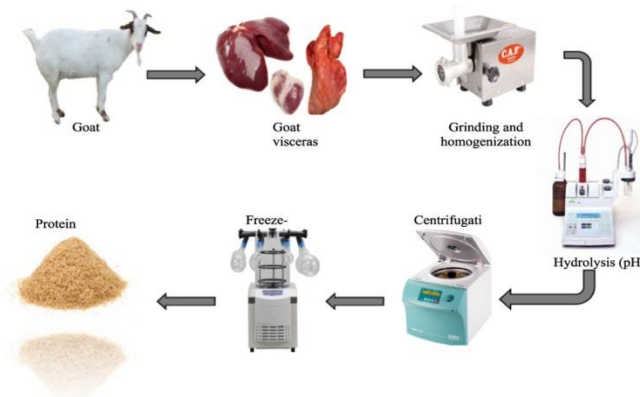
Joe Kasper, Ph.D.,
Exercise Physiologist and Clinical Nutritionist

How Muscle Goat Protein supplements are made, and why these methods ensure that the highest quality protein product is produced

As noted above, goat milk is an excellent source of protein as it is animal based (thus having HBV), nutrient-rich, and much easier for our bodies to process than cow milk.

In formulating Muscle Goat Protein Powder, the key considerations were quality, consistency, effectiveness, purity, and flavor.

The following methods have been implemented to ensure that all of these points are consistently met, and that a highly unique protein product was created:



Healthy organic pastures in the USA

Keeping our goats in optimum health is the first essential step to ensuring quality. The farmland on which they reside and graze is therefore vitally important.

Due to decades of industrial farming, much farmland can be regarded as 'dirty' or contaminated. This in turn can contaminate the milk of animals grazing on that land. We are what we eat, and goats are no exception.

Therefore, we ONLY keep our goats on the cleanest, highest quality Certified Organic pastures.

In addition, there are absolutely no cows on the farmland. This eliminates any chance of cross-contamination.

The quality of our pastures is one of several quality assurance factors allowing that helps Muscle Goat protein powder to be regarded as one of the purest available.

Feeding goats 100% raw, organic, unfiltered apple cider vinegar

Along with happily roaming free on healthy, clean organic pastures, all of our goats have 100% raw, organic, unfiltered apple cider vinegar placed in their drinking water to start their day to keep them in optimum health.

This process cleans the goats' intestines helps to ensure that their milk, from which our protein powders are made, is of the absolute highest quality.



Quality ingredients and production in the USA



All ingredients in Muscle Goat are locally sourced and are of the highest quality.

We pride ourselves on maintaining the highest production standards in the USA and stringent quality assurance practices to produce the healthiest, most natural protein product possible.

Our small herd of goats and protein processing equipment are located on the same property with no cows or any other farm animals. This allows for the highest levels of quality control and eliminates any risk of cross-contamination.

Pure, natural ingredients and no harmful ingredients

The ingredients in Muscle Goat protein have absolutely no genetic modifications. Furthermore, they contain:

- **no dyes**
- **no fillers**
- **no sugars**
- **no wheat**
- **no gluten**
- **no yeast**
- **no preservatives**
- **no pesticides**
- **no herbicides**
- **no antibiotics**
- **no growth hormones**

In short, Muscle Goat contains no unhealthy added chemicals of any kind.

Our protein is therefore safer and healthier for athletes who need to be functioning at the highest possible physiological level and non-athletes seeking the purest possible product for health and wellbeing.

No mass production

We produce a strictly limited amount of protein per month (only 4,000 units), with production personally overseen by the Muscle Goat team to ensure that the finest quality protein is consistently produced.

Muscle Goat is therefore not distributed through large stores. It is only sold directly to individual athletes and non-athletes who are seeking unique, high quality protein product.



Excellent flavor using the most natural methods



Muscle Goat protein powder is naturally sweetened using leaves from the stevia plant in their most natural form.

Whole stevia leaves have been used as a sweetener in South America for hundreds of years. However, when stevia leaves are used in most modern commercially sold vitamins and supplements, they are usually highly refined and processed.

In keeping with our organic, all-natural approach, we use the whole stevia leaf to naturally sweeten (not flavor) our protein in the purest way possible.

Ensuring a beautiful flavour increases the chance of consistent protein use (which naturally reduces when individuals do not enjoy the taste or aftertaste of their protein supplement).



Summary

Muscle Goat protein has been formulated to provide athletes and non-athletes with the highest possible protein product available.

It is designed to provide a highly nutritious animal-based protein that avoids the allergic reactions and digestive issues associated with cow milk protein products.

Goat protein was chosen for this purpose as it is an excellent choice for a protein product given its high nutritional value, amino acid profile, and digestibility based on the anatomical and physiological similarities that we share with goats, which far outweigh the similarities we share with cows.

If you have never tried a protein product before, or have not yet tried Muscle Goat protein, and particularly if you have lactose intolerance issues, I warmly invite you to try Muscle Goat protein and observe the effects for your body. Our 4-Week Challenge (see details at the end of this document) may be a great way to help you get started.



HealthyLife Program

On the next page I've listed my 8 Top Tips for the Getting the Most from Your Protein Product. I hope that these tips will help you use your protein in the most effective way.

If you would like additional help with improving your health and / or athletic performance, our HealthyLife program includes one-on-one health needs assessments performed personally by me, a personalized health plan, workout strategies, tracking of your goals and progress, and much, much more.

To learn more about this program, visit (ADD EMAIL OR WEB ADDRESS

Finally, your health is your wealth, so give it the top priority that it deserves.

Dr Joe Kasper



**Joe Kasper, Ph.D.,
Exercise Physiologist and Clinical
Nutritionist**



Dr Kasper's 8 Top Tips for Getting the Most from a Protein Supplement

1. First and foremost, be **consistent!** Take your protein supplement **daily (1-2 times)** and work it into a sustainable routine
2. Unless you are following a vegetarian or vegan diet, try to choose an **animal-based protein** supplement as these are more easily digestible and contain a more comprehensive amino acid profile
3. If you want to build muscle, **spread your protein intake across the day** to create multiple spikes in muscle synthesis
4. Take protein **in the hour following a workout** to prolong protein synthesis, promote muscle gain and reduce muscle breakdown
5. If you are training for an athletic event, consider working with a professional sports dietician to develop a **personalised protein plan** for your specific needs (if you need help with this, ask us about our HealthyLife Program, and Dr Kasper's one-on-one coaching, retreats, and workshops)



Dr Kasper's 8 Top Tips for Getting the Most from a Protein Supplement (cont'd)

6. Whether you are looking to increase energy, build muscle, lose weight, or just boost general health, make sure your protein has **no chemicals, fillers, or artificial ingredients of any kind, and no sugar**
7. Take a protein supplement that **is not mass** produced or sitting on a store shelf where light can destroy essential vitamins and minerals
8. Choose protein with a **clean flavour that you love**. You'll be much more likely to take it each day if you enjoy the flavour!



Try the 4-Week Challenge and see if goat protein is for you

If you've never tried goat protein, our 4-Week Challenge is an excellent incentive for sampling it and observing the effects upon your body.

You can perform this challenge entirely on your own by ordering Muscle Goat Protein today, OR let us help you stay accountable and sign up to our brand new 4-Week Challenge Board!

You'll receive boosters to keep you motivated, a tracking tool, and you can leave us feedback if you like as well!

If you do not enjoy it or feel that it may not be the right product for you, your money will be refunded without question. We only want happy customers who genuinely love how Muscle Goat protein makes them feel.

To order your protein and start your challenge, visit:

www.musclegoat.com