



The Spinal Column

The Fat War Myths – Part 3 of 4

By Dr. Alfin Miitha, Hons. B.Sc., D.C.

Special points of interest:

- Did you know for every one pound of muscle that is gained, an additional 100 calories can be burned at rest per day.
- Did you know that if you workout regularly you should be ingesting .64-.91 grams of protein per pound of body-weight.
- Did you know that the best way to gain muscle while working out is to have a diet that is low in a protein to carbohydrate ratio and also have a high intake of fat.

Proteins are very important in the makeup of your body. They are found in enzymes, antibodies, muscles, red blood cells, organs, hair, nails, skin and much more! However, if you were to take in too much protein in the diet not all of it will be used to build muscle. Actually any excess protein the body does not need will either be burned off as energy or stored as fat. The average North American diet takes in about 60-100 grams per day. Most of these individuals do not workout. So why do so many people use protein powders when they get more than enough protein in their diet? It is because they do not know any better.

Our bodies from part one of this article are of the hunter-gatherer type. This means that they are designed to eat plant and grains on a regular basis and animal meats are eaten only some of the time. The ramifications of having too much protein especially from meats are increased blood pressure, osteoporosis, added stress on the kidney's, and possibly cancer.

How much protein is enough when working out?

The recommended daily allowance for protein is approximately .36 grams per pound of body weight. For an individual that exercises regularly this amount of protein is very low. In fact, research has shown this amount of protein in your diet while exercising will cause you to lose muscle. The appropriate amount of protein really does depend on how long, how often and how intense your workouts are. An approximate range of .64-.91 grams of protein per pound of your body weight or for those of you who actually converted to the metric

system .8g/kg will allow you to build muscle. If you already obtain this amount from your diet then there really is no need for protein supplementation. If however you do not obtain this amount from food, or do not have the time to eat multiple meals in a day then protein is a possible solution for you.

Is a protein shake the way to go?

Most individuals believe in taking protein into their body's via protein shakes. If you recall from part 2 of this article; when you are trying to build muscle and burn fat you must release the hormones that cause this to happen in your body which are testosterone and Growth hormone. These hormones are released in response to exercise and food. In order for you to gain muscle by releasing these hormones you must have a low protein to carbohydrate ratio and a high intake of fat. Now having said this remember you still need up to .91 grams of protein for each pound of your body weight. But you also need a higher amount of carbohydrates and fat compared to the protein to get the proper result. You will get neither in a protein shake. Therefore protein shakes are great as supplements to a good diet but not as a replacement.

Not all protein is created equal

There are two major types of protein that are bought in North America; fast-absorbed (whey) and slow-absorbed (casein). If you were to eat a large protein meal you would get a very large increase in protein levels in the blood which would drop very quickly as your body removed it to remain in balance. Now, if you were to eat the same protein slowly through the day you keep a lower level of protein in the blood all the time. So which is better?

The answer is both.

Whey protein is rapidly emptied from the stomach and thus causes the spike to protein blood levels. Scientific research shows that ingestion of whey protein does not stop your own body's breakdown of protein from muscle, it does however increase protein building in your body by approximately 68%.

Casein protein clots in the stomach and is therefore slower digested and remains in the blood for up to 7 hours. Casein protein prevents your body from breaking down its own protein by about 34% and also increases protein building in your body by 31%.

To determine which type of protein is best depends on your circumstances. If you lead a busy lifestyle and get only two or three meals a day and workout intensely, the combination of these two will work very well for you. However, if you have the

time and are able to eat 4-6 meals a day whey protein is a better choice if taken at the right time. If you do not drink this protein at an optimum time it is better not to take it at all . Both of these types individually or in combination are easily dissolved in liquids but also contain lactose even if the label states that it does not.

Soy protein is another alternative if you are lactose sensitive. Women are especially benefited by Soy protein because soy contains isoflavone compounds (phytoestrogens) that are believed to protect against certain types of Cancers. It is important to note that this form of protein is only absorbed at about 2/3rds of what whey protein is by your body, it tends to clump in liquids unless a blender is utilized, and unless the label states standardized isoflavones don't buy it in my opinion.

Pea and rice proteins can also be used as supplements. Rice protein is a complex carbohydrate containing all 8 essential amino acids. Pea protein is a vegetable protein. Both of these forms are easily digested, good for people with dietary restrictions and allergies.

Is a vegetarian diet better or worse for building muscle?

A vegetarian diet produces much lower testosterone levels than does a meat rich diet. A vegetarian diet also lacks Vitamin B12 which should be supplemented in the diet (please consult your Naturopathic Doctor or Nutritionist). However, a diet high in red meats is also an abundant source of saturated fats. Therefore fish is probably the best source as it carries high amounts of protein, and fats.

When should you take your protein supplement?

- First thing in the morning: fast protein (whey)
- Post training: fast protein (whey) immediately after a workout so you get an immediate boost in muscle protein synthesis
- Immediately before bed: slow protein (casein)

About the Author:



As a life-long resident of Brampton (34 years), Dr. Alfin Mitha endeavors to provide this city with reliable, informative Chiropractic care. He lives here with his 2 kids, Aura and Zen, and his wife Rup. Having completed his Bachelor of Science degree in both Biology and Pharmacology at McMaster University, Dr. Mitha had the opportunity to work with Eli Lilly pharmaceuticals in their Research and Development of Non-Small Cell Lung Cancer and Prozac. Deciding that the private sector in medicine was not for him, Dr. Mitha then took one year off to work in Ixtapa, Mexico as a land sports G.O for Club Med. Having considered Chiropractic in the past, it was only confirmed while having the chance to meet many Chiropractors during his time in Ixtapa.

The next part of his journey took him to the Canadian Memorial Chiropractic College in Toronto, Ontario. During his education, he still maintained an active physical lifestyle while working as a personal trainer. His internship year provided him the opportunity to work at 2 very different and unique places. The first part of his internship was at Anishnawbe Health and Native Wellness Center which serviced much of Toronto's aboriginal and homeless community. The second part of his internship allowed him the chance to treat players of the Canadian National Soccer Team, and other elite Canadian athletes. Both of these placements allowed Dr. Mitha to understand many aspects of illness, injury and health. A focus which remains in his clinic; In GoodHands.

Having returned back to Brampton (a resident of 34 years, he has since become an active member of the Rotary Club, Brampton Tennis Club, Brampton Volleyball League, Yoga instructor and more recently the Health Practioner Advisory Committee for the city. Dr. Mitha wishes to become a more integral part of Brampton's community. "It is imperative that we take care of our body and mind, it is our most valuable asset. The first step is education and if anything else, we provide that for our patients".

Main and Franchise Clinics:



In GoodHands Rehabilitation & Wellness Centre
 Bramalea City Centre – Inside GoodLife Fitness
 Unit 50A - 25 Peel Centre Drive, Brampton, ON L6T 3R5
 Phone: (905) 453-5858 Fax: (905) 453-8995
 Email: info@ingoodhandswellness.com

Services:

- Acupuncture
- Chiropractic Care
- Massage Therapy
- Naturopathic Medicine
- Orthotics
- Physiotherapy

Products:

- Athletic Braces & Splints
- Compression Stockings
- Memory Foam Pillows
- Custom Made Orthotics
- Health Supplements

Clinic Hours:

Mon. and Wed.: 9:30 am - 8:30 pm
 Tues. and Thurs.: 10:00 am - 9:00 pm
 Fri.: 9:30 am - 7:00 pm
 Sat.: 9:30 am - 2:30 pm
 Sun.: Closed

In GreatHands Chiropractic & Wellness Centre
 Inside Oshawa Centre Mall
 C/O Goodlife, 419 King Street West, Oshawa, ON L1J 2K5
 Phone: (905) 433-9520 Fax: (905) 433-8144
 Email: oshawa@ingreathands.com

Services:

- Chiropractic Care
- Dry Blood Analysis
- Hair Analysis
- Irridology
- Massage Therapy
- Nutritional Urinalysis
- Orthotics
- Psychology
- Reflexology
- Rehabilitation
- X-Rays

Products:

- Custom Made Orthotics
- Health Supplements

Clinic Hours:

Mon. - Thurs.: 9:00 am - 7:30 pm
 Fri.: 9:00 am - 7:00 pm
 Sat.: 9:00 am - 5:00 pm
 Sun.: Closed