

Pros and Cons of Health Supplements

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Abstract: *While the benefits of protein supplements don't measure up to those you'll get from real foods, they are a close second place. In combination with balanced eating and a fitness plan, protein supplements can help you lose weight, put on lean muscle and satisfy your daily nutritional requirements. Some pros of protein supplements are:*

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Weight Loss

According to research published in "The American Journal of Clinical Nutrition" in 2008, protein is more satiating than either fat or carbohydrates. That means protein supplements may be effective at making you feel full with fewer total calories than foods rich in carbohydrates or fats. In a study published in 2010 by researchers at the University of Ulm, subjects who used high - protein meal replacements as part of a low - calorie diet lost more weight and fat mass throughout the course of a year than subjects who did not use the supplements.

Muscle Gain

Protein supplements can also help when you're trying to gain lean muscle. According to Rice University, adults who want to put on muscle should strength train several times per week and increase their protein intake from 0.4 to 0.6 grams per pound of body weight per day to between 0.6 and 0.9 grams. A study published in 2001 from St. Francis Xavier University's Department of Human Kinetics found that participants who used whey protein supplements showed greater improvement in strength performance and muscle mass gain after six weeks than subjects who received a placebo.

Daily Nutrition

If your diet lacks high - quality sources of protein, taking supplements will allow you to get the nutrients you need. The Centers for Disease Control and Prevention recommend that adult women get at least 46 grams of protein daily and adult men get at least 56 grams. Vegans and athletes building muscle may need extra protein, which they can find in supplements.

Muscle Recovery

There is some evidence that protein powder, especially fast - acting whey protein, can accelerate muscle recovery. In a study published in 2017 in the journal *Nutrients*, scientists measured athletes' peak power, the reps of certain exercises they could complete and their maximum strengths during a typical workout and then both 10 and 24 hours after taking whey protein. Moderate improvements showed after 10 hours, but after 24 hours, the participants had made significant gains in all three areas.

Fight Illness

Having a strong immune system requires a well - balanced diet containing proper amounts of all essential nutrients – including protein. Whether you are battling the flu or fighting a chronic condition, researchers have found that as you age, you're less likely to consume adequate food and more likely to fall behind on your protein intake putting your body at risk.

Successful Aging

As you age, your body starts to breakdown muscle tissue faster than you build it. Often referred to as sarcopenia, this age related muscle loss begins in your 40's and increases exponentially as you age having a significant impact on your strength, vitality and independence. To stop this loss researchers have discovered that a good protein intake, particularly milk proteins at each meal, is one of the keys to maintaining muscle. Milk proteins, casein and whey, are considered to be high quality proteins due to their essential amino acid composition, rate of digestion and absorption and positive impact on muscle strength.

Protein supplements are popular with people looking to build muscle and lose weight, as well as those wanting to lose body fat. Shakes can be useful if you want to get an extra protein hit and top up your intake when food isn't available. On the other hand, there are also certain disadvantages of protein supplements, and they certainly aren't a necessity, regardless of your goals.

Inferior Nutrition

In a battle between supplements and whole foods, according to the Mayo Clinic, whole foods are the clear winner. "Supplements aren't intended to be a food substitute because they can't replicate all of the nutrients and benefits of whole foods, " write the clinic's staff members. If you rely on supplements, you'll miss out on getting as much dietary fiber and as many natural and protective substances – such as phytochemicals and antioxidants – that you would have obtained by eating protein - rich whole foods.

Hidden Calories

Some protein supplements are relatively low in calories, containing minimal amounts of carbs and fat; they are similar in calories to a can of tuna or a chicken breast. Other protein supplements have hidden calories, however, which can cause you to gain weight. If your protein powder has

more than 150 calories or 3 grams of sugar per serving, it could be doing you more harm than good.

Getting Heavy

A high intake of protein supplements - - around three servings per day - - could result in a high exposure to heavy metals, according to an article on the Sports Dietitians Australia website. This is probably due to cross - contamination in the manufacturing process. If you're getting protein from shakes, limit your servings to one to two a day, and include protein from whole - food sources, such as meat, fish, dairy and beans.

Digestive Problems

That lack of fiber in supplements is one factor that can cause digestive problems, including constipation and diverticulitis. For that reason alone, Mayo Clinic nutritionist, Katherine Zeratsky, R. D., L. D., recommends following high - protein diets only on a short - term basis. You may be able to avoid some digestive issues by following a high - fiber diet, choosing a protein product that is fortified with fiber or taking a daily fiber supplement, so check nutritional labels when you're shopping.

Kidney Risks

If protein supplements consistently put you past your recommended daily requirements, you may be subject to developing kidney problems because the kidneys are involved in breaking down protein. If you already have kidney disease, the Centers for Disease Control and Prevention reports that supplements could further impair the organs, essentially throwing them into overdrive by making them work harder to expel excess waste by - products.

Side Effects of Excess Protein

- 1) **Weight gain:** Excess calories from excess protein may be stored as body fat.
- 2) **Intestinal irritation:** Too much protein has been linked to constipation, diarrhea and/or excessive gas.
- 3) **Dehydration:** Experts advise drinking a half gallon of water per 100 grams of protein.
- 4) **Seizures:** Seizures have been linked to excess protein intake - but only if insufficient amounts of water are consumed.
- 5) **Increase in liver enzymes**
- 6) **Risk of heart disease:** This is a bit misleading. A *healthy* high - protein diet is not associated with heart disease. But if you are getting all of your protein from unhealthy sources that are loaded in unhealthy fats, obviously the risk for heart disease will increase.

Resources

- Physicians Committee for Responsible Medicine: The Protein Myth
- McKinley Health Center: Protein Supplements - Are They Worthwhile?
- Sports Dietitians Australia: Fact Sheet - Protein and Amino Acid Supplementation
- DaveyWaveyFitness.com
- MayoClinic.com: Supplements - Nutrition in a pill?

- Centers Of Disease Control and Prevention: Nutrition for everyone - Protein
- Rice University - Protein requirements for athletes
- www.myboomernutrition.com/protein - supplements - why - they - arent - just - for - bodybuilders - and - athletes

References

- [1] Kothari, S. S., Jain, S. V., & Venkateshwar, A. (2018). The impact of IOT in supply chain management. *International Research Journal of Engineering and Technology*, 5 (8), 257 - 259.
- [2] Purohit, N., Adesara, D., Kedia, S., & Venkateshwar, A. (2019). Effect of Financial Globalization on Developing Countries. *International Journal of Management*, 10 (4).
- [3] Tiwari, P., Malik, S. W., Madhogaria, Y., & Venkateshwar, A. (2020). A Study of the Universal Basic Income for Developing Countries. *International Journal of Management*, 11 (5).
- [4] Venkateshwar, A., & Warriar, D. U. (2017). The Effect of Birth order in the Emotional Intelligence of Net Generation Students. *International Journal of Management*, 8 (6).
- [5] Warriar, U., & Venkateshwar, A. (2020). Birth order as a Catalyst in the Emotional Intelligence of Students. *Journal of Engineering Science*, 11, 263 - 268.
- [6] Singh, A. K., Agrawal, N., Prakash, S., & Venkateshwar, A. (2019). The Rise of NPA's in the Indian Banking Sector.
- [7] Krishna, M. S. S., Rokkam, R. A., & Venkateshwar, A. (2020). The client perception of electric vehicles and its impact on sales. *IJAR*, 6 (10), 735 - 739.
- [8] Kandoi, C. S., Jain, S. V., & Venkateshwar, A. (2019). Crowd funding in India. *IITM Journal of Management and IT*, 10 (2), 53 - 56.
- [9] Venkateshwar, A., & Warriar, U. (2019). The effect of family type on the academic performance of engineering students in India. *Journal Homepage: http://ijmr.net.in*, 7 (02).
- [10] Venkateshwar, A., & Warriar, U. (2019). The effect of family type on the academic performance of engineering students in India. *Journal Homepage: http://ijmr.net.in*, 7 (02).
- [11] Venkateshwar, A., & Warriar, U. The Role of Values, Attitudes and Beliefs in the Emotional Intelligence of Net Generation Students.
- [12] Venkateshwar, A., & Warriar, U. (2018). The Impact of Family Type on The Emotional Intelligence of Net Generation Students.
- [13] Bharadwaj, D. S., Sayeed, F., & Venkateshwar, A. The Effect of Covid19 on Global Economy.
- [14] Haneesh, G. R., & Venkateshwar, A. (2021). THE IMPACT OF COVID - 19 ON THE AUTOMOTIVE INDUSTRY IN INDIA. *International Journal of Management (IJM)*, 12 (4).
- [15] Bajaj, M., Venkateshwar, A., Asha, S., & Likitha, V. S. (2021). THE INFLUENCE OF COVID - 19 PANDEMIC ON THE GLOBAL ECONOMY. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 18 (08), 76 - 84.

- [16] Venkateshwar, P. R. P. A. (2019). The Influence of Globalisation in India.
- [17] Venkateshwar, A., & Warriar, U. (2017). The Relationship between Emotional Intelligence and Academic performance of net generation students. *IJAR*, 3 (4), 782 - 787.
- [18] Jallan, R., & Venkateshwar, A. APPLICATION OF ETHICS AND PROFESSIONALISM IN REAL TIME BUSINESS.
- [19] Venkateshwar, A., & Warriar, U. THE EFFECT OF BIRTH ORDER IN THE ACADEMIC PERFORMANCE OF NET GENERATION STUDENTS. *Dr. EaswaranIyer*, 11.
- [20] Hebbur, A., Gupta, T., & Venkateshwar, A. The Impact of Education in Finland.
- [21] Jain, R., & Venkateshwar, A. The Relationship between Lockdown and Economic Growth in India.
- [22] Venkateshwar, A., Agarwal, N., & Singhvee, N. (2017). The effectiveness and efficiency of the various graduate recruitment methods. *IOSR Journal of Business and Management*, 19 (1), 26 - 31.