NUTRITION MYTHS DISPELLED GUIDE

CHRIS AND ERIC MARTINEZ

THE CONTRIBUTORS

STUART PHILLIPS

What we have done here is compiled some of the industry's top experts, researchers, and coaches dispelling nutrition myths. You will notice a variety of nutrition myths that we personally asked each person to dispel... Enjoy!

THE EATING TOO MUCH PROTEIN IS BAD FOR YOUR HEALTH MYTH

STUART PHILLIPS

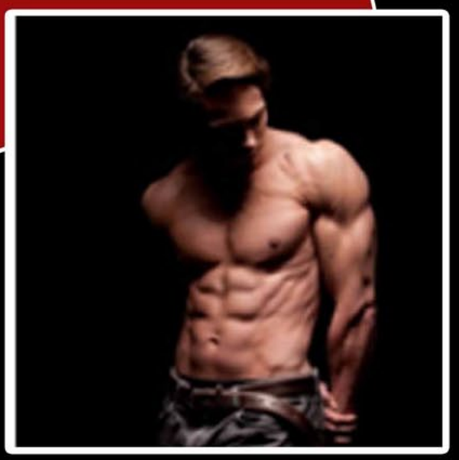
MENNO HENSELMANS

THE ANABOLIC WINDOW MYTH

The biggest myth is that 'overconsumption' of protein is going to do something bad to your kidneys or your bones. The evidence on renal health and high protein diets is quite clear: if you don't have kidney problems then more protein is not going to hurt your kidney function! Even the WHO/FAO and the US/Canadian DRI reports agree on this. Insofar as bone health is concerned so long as you're getting adequate calcium and vitamin D protein will actually actively enhance bone formation and will NOT promote bone loss. It's time to put these big myths to bed in my view. Also, excess protein is not converted to fat since only 2 amino acids can lead to fat synthesis!

Conclusions:

If you don't have kidney problems then more protein is not going to hurt your kidney function, protein will help with bone formation, and excess protein is not converted to fat.



MENNO HENSELMANS

JEREMY LOENNEKE

MULTI VITAMINS AND HEALTH MYTH

It's difficult to single out a "biggest" nutritional myth; so many to choose from. One myth that I've recently been involved in debunking is the claim of a narrow "anabolic window of opportunity" whereby protein must be consumed within an hour post-workout; waiting any longer impairs gains. Some have even asserted that if you wait 3 hours then you basically lose out on any benefit of the resistance training session. To evaluate whether such an "anabolic window" does in fact exist, I recently collaborated with my colleagues Alan Aragon and James Krieger to carry out a meta-analysis of existing data on the topic. We included any study that compared a protein intake (minimum 6 g EAAs) given 1 hour pre- and/or post-exercise versus protein consumption at least 2 hour or more outside of the bout. A total of 23 studies encompassing over 500 subjects met inclusion criteria for muscle hypertrophy.Results showed no significant differences regardless of the timing of protein intake. What was shown to be supremely important was the amount of protein consumed: those who consumed higher intakes (~1.7 g/kg) showed significantly greater muscle growth than those who consumed lower amounts (~1.3 g/kg). Here's the take home message. The timing of protein intake in and around resistance training has at best a small impact on muscular gains. It certainly is not going to make or break your results. For those who are recreational lifters, it really shouldn't matter when you take in protein, at least within fairly wide limits.

Conclusions:

The focus should be on meeting your daily protein requirements (i.e. at least 1.6 g/kg/day). On the other hand, those who are competitive bodybuilders or strength athletes would be best advised to consume protein relatively quickly following training. In this case, it's best to err on the side of caution as even a small effect can be the difference between winning or losing a competition.

If a healthy person takes a multivitamin does it substantially enhance health? This has been a hot topic as of late when 3 papers in the Annals of Internal Medicine failed to support the efficacy of multivitamin supplementation. This of course caused quite a ruckus in the fitness industry where supplements are routinely promoted as necessary for optimal health and fitness. I saw post after post about how flawed those studies were and how those studies over interpreted their findings. This shouldn't be surprising since the industry certainly wouldn't want results coming out to the public telling them that spending money on that 'special pill' probably isn't doing that much. I decided to take a closer look at the studies in question and found that the authors certainly didn't over interpret their findings. In fact, they were consistently offering caveats for why the results may have not supported the use of a multivitamin (e.g. sample size, compliance, nutritional status, etc.). Of course this wasn't known to the vast majority of people who had a problem with the studies because they probably didn't even read them. A brief conclusion of each study is found below:

Fortmann et al. "We found no consistent evidence that the included supplements affected cardiovascular disease (CVD), cancer, or all-cause mortality in healthy individuals without known nutritional deficiencies."

Lamas et al. "TACT (Trial to Assess Chelation Therapy) found that a 28-component, high-dose oral multivitamin and multimineral regimen used as a secondary prevention in patients who have had MI (myocardial infarction) did not statistically significantly reduce cardiovascular events."

Grodstein et al. "In this long-term, randomized, placebo-controlled trial with more than a decade of treatment among 5947 men aged 65 years or older, those assigned to a daily multivitamin had similar overall cognitive performance as those receiving a placebo."

JEREMY LOENNEKE

Several layman articles came out in defense of multivitamin supplementation and cited several articles (found below) as good evidence for supplementation. These articles were cited and circulated by people who thought that these studies were overlooked. I provide those citations below and provide my response to those papers in bold.

Li, K., et al. Vitamin/mineral supplementation and cancer, cardiovascular, and all-cause mortality in a German prospective cohort (EPIC-Heidelberg).Eur J Nutr. 2012 Jun;51(4):407-13.

Not double blind placebo controlled.

Arul, A. B., et al. Multivitamin and mineral supplementation in 1,2-dimethylhydrazine induced experimental colon carcinogenesis and evaluation of free radical status, antioxidant potential, and incidence of ACF. Canadian Journal of Physiology and Pharmacology 90(1):45-54, 2012.

Animal model, experimentally induced cancer (not a model of a healthy person).

Pocobelli, G., et al. Use of supplements of multivitamins, vitamin C, and vitamin E in relation to mortality.American Journal of Epidemiology, 2009.

Not double blind placebo controlled. In addition, there was no relationship between multivitamin supplementation and mortality.

Peters, U., et al. Serum selenium and risk of prostate cancer-nested case-control study. The American Journal of Clinical Nutrition 85(1):209-217, 2007.

Not double blind placebo controlled.

Barringer, T. A., et al. Effect of a Multivitamin and Mineral Supplement on Infection and Quality of Life: A Randomized, Double-Blind, Placebo-Controlled Trial. Annals of Internal Medicine 138(5):365-371, 2003.

Subjects had a high prevalence of subclinical micronutrient deficiency. The correction of deficiencies provides the best explanation for the benefits observed.

Macpherson, H. et al. Memory improvements in elderly women following 16 weeks treatment with a combined multivitamin, mineral and herbal supplement—A randomized controlled trial.

Psychopharmacology 220(2): 351-365, 2012.

JEREMY LOENNEKE

ERIC HELMS

Improved spatial working memory in elderly women with subjective complaints of memory loss.

Haskell, C. F., et al. Effects of a multi-vitamin/mineral supplement on cognitive function and fatigue during extended multi-tasking. Hum Psychopharmacol. 2010 Aug;25(6):448-61.

Small improvement in cognition, however, it is unknown if the participants were deficient at baseline.

I think it's pretty fair to say that those articles cited as being left out of the discussion provide little compelling evidence for population wide supplementation with multivitamins. I think the majority of evidence suggests that if you aren't deficient, you will not see any measurable effect from supplementation. The idea that you need to supplement with a multivitamin for optimal or enhanced health appears to have little evidence to support it.

Other References:

Grodstein, F., et al. Long-Term multivitamin supplementation and cognitive function in men: A randomized trial. Annals of Internal Medicine 159 (12):806-814, 2013.

Lamas, G. A., et al. Oral high-dose multivitamins and minerals after myocardial infarction: A randomized trial. Annals of Internal Medicine 159 (12):797-805, 2013.

Fortmann, S. P., et al. Vitamin and mineral supplements in the primary prevention of cardiovascular disease and cancer: An updated systematic evidence review for the U.S. Preventive Services Task Force. Annals of Internal Medicine 159 (12):824-834, 2013.

Conclusions:

- Put your emphasis on eating FOOD not popping pills.
- If you aren't deficient you probably won't see anything positive.
- The thought process "well if I do take it, it probably won't hurt me" is not a good reason to do something. (in fact some evidence actually suggests mega dosing vitamins may hurt you)
- Exercise

THE MYTH OF EATING TO GROW

As bodybuilders we've all heard it: "bodybuilding is 80% nutrition" I used to repeat this before I knew better. Before you cock an eyebrow, wondering how I could possibly dispute the importance of nutrition for bodybuilders, let me explain. Nutrition is important but, the statement "bodybuilding is 80% nutrition" ignores important context and this mindset leads to common bodybuilding mistakes.

To be clear, during contest preparation or a cut, you won't get into the condition you want without a focus on nutrition. You can train any way you please, but no matter what you do, without a caloric deficit the best you can hope for is a bit of recomposition. Beginners might see their body composition improve the most, but only because they can put on more muscle, not because they have a training plan that chews through body fat regardless of energy balance.

Now that I've made that clear, let's get into the meat of what I'm talking about. Bodybuilders focus intently on nutrition (especially competitive bodybuilders) and understandably this influences our perception of what nutrition can and cannot do. It is important that we realize that muscular adaptations such as hypertrophy are caused by training. Training is the root cause of getting bigger or stronger. You can put a protein shake on a bench press but that barbell will stay racked.

For further proof consider this question: In situation 1 a young bodybuilder begins a bodybuilding training program, but does nothing to change his diet. In situation 2 a young bodybuilder sets up an off season diet to put on size, but doesn't train. In which situation is our young bodybuilder going to gain more muscle? The answer is obvious, of course only the situation in which the young man lifts weights is he going to grow. Sitting on the couch putting down enough food to gain weight without training certainly results in growth…but it won't be muscle.

ERIC HELMS

Of course the ideal situation for growth would be that our young bodybuilder followed the eating and training plan. However, nutrition needs to be put into context. Training is the actual stimulus while nutrition is only permissive to muscle growth. What do I mean by permissive? I mean that nutrition can permit the growth of muscle tissue but it is not the root cause. That is the function of training. "Eating to grow" is a misnomer. All you can do is eat to provide the ideal environment to permit growth. You can train to grow, but you cannot truly eat to grow. The reason I'm harping on this semantic difference is because this misunderstanding has led many down the path of putting on unnecessary body fat way too fast.

Nutrition is permissive; therefore it can be the limiting factor to growth. However, you must consider how much potential for growth exists. A new, young, male trainee starting a sound hypertrophy program has a high potential for growth. A twenty year veteran is much closer to his or her genetic ceiling and the potential for growth is drastically reduced. Therefore the new trainee might find that without focusing on eating a significant calorie surplus, he is in fact limiting his potential for growth. On the other hand, doing the same thing the veteran would steadily increase his body fat. So sure, there is an argument to put down a lot of food for a beginner, but only to a point.

Conclusions:

Remember, nutrition only permits the growth, you can't force feed gains!

JOSE ANTONIO

THE DETOX DIET MYTH

JOSE ANTONIO

There's a quality to some Facebook posting that is akin to watching a car wreck, pigs flying, and monkey's typing out Shakespeare-like prose on a PC. One of the funnier ones go something like this: "Been on a 2-week detox diet and I've lost 5 lbs! I feel like a million Euros." Or bucks if you live in the US. Of course, these status updates are then followed up with well-wishers who write: "Aw gee, can you tell me the secrets of detoxing?" Or "what foods do you to eat to cleanse your body of all those pesky poisons?" I swear. It's like watching an episode of "Here Comes Honey Boo Boo." You feel like your IQ just dropped 10 points.

Okay, enough of the slapstick. Is there really anything to these Detox Diets? First of all, WTH is a Detox Diet? From what I can gather, the general premise of these diets is that your body has 'toxins' and other pesky harmful substances that need removal. And by gradually eliminating or severely limiting foods that increase 'toxic buildup,' you'll be toxin-free. Woo hoo! Sound the trumpets. I think a Nobel Prize in Medicine awaits the Detox Diet Inventors.

So you ask, what's the problem with Detox Diets? Well, the biggest problem is that there's NO EVIDENCE THAT THEY DETOXIFY ANYTHING! And when you ask folks what 'toxins' they're removing from their bodies, there's a stupefying silence. Ummm. Ummm. Sort of how your dog looks at you when you ask it to roll over and play dead; meanwhile your dog thinks you're saying "what's the square root of 81?"

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So if you want to just feel better, here's my simple advice:

Exercise more days than you don't. If you can't do the math, that's at least 4 times per week.

Make one of those workouts so hard that your eyeball sweat

Conclusions:

Eat well about 3 out of every 4 times – choose mainly unprocessed carbs, lean meats (except make room for fatty fish), and healthy fats (e.g. nuts of all kinds, olives, etc). Stop falling for these scams.

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Now the next step is to take ACTION on your goals!

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