You Are What You Eat
Part II
By Tony Gentilcore

In Part I, I gave carbohydrate sources and timing the consideration they undoubtedly deserve. In this sequel, we’ll look at protein and fat. Without further ado, let’s get to it!

Protein

Among the people with whom I have worked, protein is the most neglected macronutrient. Women in particular tend to have diets that are very deficient in protein. Why? Who knows? One reason may be that many of them seem to think that a container of yogurt is a good source of protein. Sure, it may contain about five grams of quality protein, but to deem yogurt a significant source of protein is altogether untrue. Another reason might be because many view animal protein as fattening. This is true to an extent, but if one takes precautions and buys LEAN meats, then this shouldn’t be an issue. Besides, there are thousands of delicious furry animals out in the world to be eaten, so don’t be skeered ladies. And that goes for you as well, gentlemen.

Protein provides us with amino acids, the building blocks of muscle. If one is deficient in protein, this will lead to negative nitrogen balance, which in layman’s terms means that that individual will be hard-pressed to add any significant amount of lean muscle mass (or preserve it, for that matter). This is particularly crucial when one is dieting to get leaner. For most people, a caloric deficit is needed in order to lose fat; this state can leave the body in a muscle-wasting mode if one isn’t careful. Very generally speaking, making sure that you are ingesting ample amounts of protein (amino acids) will “protect” muscle tissue and prevent your body from breaking it down in order to use it for fuel. I say "very generally speaking" because other factors such as training stimuli, cardiovascular exercise, and total caloric intake also play vital roles in terms of preserving lean muscle mass while dieting (psst here’s a hint: you should be strength training during this time and not toying around with high reps and low weights to feel the “burn,” you big sissy).

Another great benefit of protein is the fact that it is has a very high Thermic Effect of Food (TEF) factor. TEF refers to the calorie-burn associated with the digestion and assimilation of food. If there is one macronutrient of which you should not be afraid of overeating, it is protein. Dr. Lonnie Lowery, one of the world’s top sports nutritionist has paid considerable attention to this point in many of his writings. Essentially, he explains that diets high(er) in protein require the body to burn more calories in digestion compared to diets that are lower in protein. Thus, excess protein calories aren’t as likely to be stored in the body as fat. Just to give you a frame of reference example, the TEF of protein is approximately 30%, compared to just 4%-6% for carbohydrates and fat, respectively (1). To put this into perspective; for a 100-calorie meal, protein will require a complete 30 calories just to process it, compared to a measly 4 or 6 calories expended to process carbs or fat. It seems pretty obvious to me which macronutrient you shouldn’t be neglecting.

Top-notch Protein Sources

Eggs- In terms of its biological value (a measure of protein quality, assessed by determining how well a given food or food mixture supports nitrogen retention), eggs are the best source for which you could ask. On a scale of 100%, egg whites have a BV value of 100%. Yay for the egg! And no, you don’t need to be like Rocky and down a raw egg shake in the morning (although it would be totally sweet if you could help bring an end to the Cold War by beating up a giant Soviet heavyweight). Actually, doing so will interfere with biotin absorption from the egg yolk due to the high traces of avidin found in raw egg whites. Besides, cooking your eggs denatures the protein, which increases its bioavailability.

Chicken Breast/Turkey Breast/Ground Turkey- All are great sources of lean protein and should be staples in your diet. They make great healthier alternatives in recipes calling for beef or other more fattening meats; I use these meats in chili, tacos, fajitas, and burgers. In order to keep costs down, I like to buy them in bulk and then just grill or cook
them ahead of time and store them in tupperware to last me the week. Doing so will save you a lot of time in terms of food preparation and you will always have a healthy snack available for those times when you have a case of the munchies.

**Lean Ground Beef**- While it is a bit more expensive to buy, lean beef is definitely well worth the extra dollar you will spend. The leanest cuts range from 93%-95%, so be sure to check the labels. Again, food prep enters the equation, so what I like to do is cook my beef in a big frying pan sprayed with Olive Oil-based Pam, drain the fat, and then add a jar of salsa and a bag of mixed veggies to it to spice it up a bit and make it a bit healthier. Presto! You have yourself a hardy 3-5 P+F meals to last you a few days.

**Cottage Cheese**- Of all the foods that I recommend to people, cottage cheese is the one that elicits the most groans and looks of sheer terror. The comments that I hear most often are, “Oh my god, I can’t eat that,” or “The texture! The texture! Please no, I can’t stand the texture!” You would think that I was suggesting that they eat a concoction from Fear Factor or something. Okay, I admit that cottage cheese isn’t the most palatable food in the world, but the host of benefits that it offers far outweighs the drawbacks, so suck it up, buttercup. I often recommend cottage cheese as a nighttime snack due to the fact that the main protein source in it is casein. Casein is a slowly absorbed protein with anti-catabolic qualities, making it a perfect food to eat right before an 8-10 hour "power nap." Adding a scoop of chocolate protein powder and a tbsp of natty peanut butter makes for a welcome treat right before bedtime. Doing so will ensure that your body has a healthy dose of amino acids (as well as some healthy fat) to last through the night and serve as “protection” for precious lean body mass.

**Tuna/Fresh-Water Fish**- Regardless of its unpleasant scent, tuna is an easy and convenient source of quality protein. One can (or package, for that matter) generally packs 25-30 grams of protein that can be eaten straight up (only if you are truly hardcore), or used in salads, casseroles, and obviously as part of a sandwich. Stick to the variety that is packed in water and not vegetable oil.

**Beef Jerky**- As far as convenience is concerned, not many foods top this one. I get a lot of clients who work in an office setting, which makes it much harder for them to get enough meals in throughout the day because they can’t get away from their desk. One easy solution is to bring foods to work that are easy to store. Enter dried up cow meat in a sealed package! Beef jerky packs a ton of lean protein that can easily be eaten while sitting in front of your computer browsing Rugged when you’re supposed to be doing your work. How cool is that? Just make sure that you go with a brand has less than 5g carbs per serving; otherwise, you’re eating something that the manufacturer has coated in sugar.

**Protein Powders**- I hear the same questions day in and day out: “What supplements should I be taking? Should I get some protein powder?” I usually retort with, “Before the word supplement even leaves your mouth, you should be more concerned with getting your overall diet squared away with WHOLE foods first. No supplement or protein powder is going to compensate for an atrocious diet.” However, I will admit that I don’t necessarily consider protein powder a supplement. I do feel that it plays a vital role in helping people reach their protein requirements each day. Sometimes, it is hard to eat 300-400 grams of protein per day through whole foods alone, so protein powders are a very quick and convenient way to ensure that individuals are able to meet their needs. Protein powders are also very versatile in that they can be added to things such as oatmeal, cottage cheese, and cereal - and obviously used to make shakes.

In addition, one needs to take into consideration the timing of certain protein powders, as well as what types are convenient for them to fit their lifestyle. It is often recommended that whey protein be ingested immediately before, during, and after training due to the fact that it is absorbed more quickly and promotes protein synthesis; both of these qualities are ideal in the post-training “anabolic window.” At other times in the day, it’s best to ingest more slowly absorbed protein powders such as casein and milk-protein isolate, both of which have superb anti-catabolic qualities. For those who are vegetarians or have food allergies towards whey, casein, or MPI powders, other options include rice, pea and soy proteins (although these options are less impressive in terms of biological value). Needless to say, there are a plethora of options out there to fit everyone’s needs.
I’m going to let you in on a shocking secret: dietary fat does not make you fat.

“Heresy,” you claim.

“Ludicrous,” you say.

“Absurd,” you assert.

Since the early to mid 1980s, people have feared fat as if it was an evil step-mother. Why? Well, it certainly didn’t help that the ADA and hundreds of “experts” started advocating diets that were low in fat and high in carbohydrates, claiming that fat was our primary nemesis. The rationale was that if people didn’t eat fat, they wouldn’t get fat: scientific reasoning at its best. The result? Rates of obesity and type 2 have reached all-time highs, leading to an epidemic where obesity is on the verge of overtaking heart disease as the nation’s #1 preventable cause of death.

That fact is that much of the fat content in foods was replaced with copious amounts of refined sugar. So, while people merrily ate entire boxes of fat-free cookies (assuming it was a guilt free pleasure), their waist sizes were growing faster than Kirstie Alley’s during her post “Cheer’s” career. Okay, maybe not that fast, but you get the point.

In all actuality, as Rob Faigin stated in his phenomenal book, Natural Hormonal Enhancement,

“Whether or not dietary fat is fattening depends on your hormonal state. If you are a sugar burner, your metabolism is geared toward carbohydrate utilization and incoming dietary fat is channeled to adipose tissue to be added to your fat stockpile. By contrast, as a fat-burner, the sugar-burning (glycolytic) pathway is suppressed and the fat-burning (lipolytic) pathway is activated. Consequently, incoming dietary fat is burned at a high rate along with its biochemical twin-sibling-bodyfat (2).”

If you are a “carb-junky,” insulin levels are constantly raised and incoming dietary fat is MUCH more likely to be stored as bodyfat. Individuals who control their insulin levels throughout the day don't have so much trouble, though.

It's important to also take into consideration the concept of calories in vs. calories out. Sure, one gram of fat contains more calories per serving than one gram of carbohydrate and one gram of protein COMBINED, but if one is eating at a deficit, then this doesn’t really matter much (taking into account a proper training stimulus and meal timing). That’s not to say, however, that you could eat 2000 calories worth of fat and get the same result as if you ingested 2000 calories worth of protein (assuming both are at a deficit). How your body metabolizes and partitions certain macronutrients varies to a great degree and hence will yield different results in terms of one’s body composition. Generally speaking, though, when someone is trying to “lean-up,” one of the key factors is calories in vs. calories out, not how little fat they eat.

All myths aside, dietary fat plays several other crucial roles beyond energy provision. First of all, there is this thing called vital or “essential” body fat. Essential means that your body will have a hard time functioning properly if it does not have a certain amount of body fat. For men, that number is approximately 3%, and for women, it is about 12%. So, for those people who eat very little fat in their diet in hopes of achieving low(er) body fat levels, they are doing themselves a huge disservice; your body NEEDS it! Dietary fat also helps with increasing serum testosterone levels, aids with the digestion of “fat soluble vitamins” (A,D,E,K; your body can’t digest these vitamins without dietary fat), and helps with satiety. Because fat takes a little longer to digest, it provides a more satisfied and full feeling after meals.

Just as I noted that not all calories are created equal, all fats are not created equal; there are “good” fats and “bad” fats. In terms of “bad” fats, I am just going to make your life simple and tell you to stay away from trans-fats whenever you can. Trans-fats (trans-fatty acids) are man-made fats that are created when hydrogen is added to vegetable oil in order to increase its shelf life. This process alters the chemical structure of fat from its natural cis-configuration to the unnatural trans-configuration, which raises LDL cholesterol (the bad kind), lowers HDL cholesterol (the good kind), and increases your risk of heart disease. Unfortunately, trans-fats are in many of the typical Western diet's mainstays:
fast food, donuts, cake, cookies, potato chips, and pastries (just to name a few). All are tasty foods that are made in mass quantities, are readily available, and perhaps most importantly, are convenient. When it comes to “healthy” fats, on the other hand, the choices aren’t as enticing and more often than not, take a bit more effort to work them into the diet. The benefits are, however, WELL worth it:

Monounsaturated Fats

Olive/Canola Oil- Whenever a recipe calls for vegetable oil, use EXTRA VIRGIN olive oil or canola oil instead. Several research studies, as well as real world evidence have shown that diets high in monounsaturated fats lead to increased insulin sensitivity and fat oxidation. What this means is that you tend to use more energy metabolizing this form of fat than the other forms. Pretty neat that eating a fat actually leads to a higher metabolic rate and, in turn, greater fat loss, huh?

Mixed Nuts/Seeds- The one caveat for this section is that peanut allergies are pretty common, so use caution. That said, mixed nuts make for a superb mid-afternoon snack. I prefer whole, raw almonds (which I buy in bulk), but most mixed nut blends would suffice. Pecans, walnuts, pistachios, macadamia nuts, and cashews are all viable options. Also, for the baseball player in you, sunflower seeds and pumpkin seeds make awesome snacks. Just be careful with quantities; it doesn’t take a lot of nuts or seeds before the calories add up (they tend to be very calorically dense). Try to limit yourself to a handful if you choose to include these in a meal. And please be sure to buy raw or dry roasted varieties. Many of the “snack” nuts and seeds tend to be highly processed and cooked in peanut/sunflower oil, which adds nasty trans-fat to the mix.

Natural Nut Butters- Again, if you happen to be someone who has an allergy to peanuts, then I wouldn’t recommend indulging in peanut butter too often. That aside, "Natty PB" is an awesome source of MUFA’s. Just make sure that when you go shopping for it, that the only ingredients that you see on the label are peanuts and salt. Steer clear of all the Jif’s, Skippy’s and Peter Pan’s; all of those brands are loaded with trans- fatty acids. You will be better served buying a generic brand natural peanut butter. Also, suck it up and buy the regular kind. There is no need to buy the “reduced-fat” variety, as the manufacturers simply replace the fat with sugar and overprocess the stuff like you wouldn't believe. Also, for a true sense of what heaven on Earth must feel like, try to get your hands on some cashew or almond butter. While a bit harder to find (you may have to seek out your local Natural/Organic Food Store), these butters are well worth the effort.

Polyunsaturated Fats

Fish Oil- Unless you have been living under a rock for the past few years, you've likely heard about the numerous health benefits of implementing fish oil (more specifically the omega-3 fatty acids eicosapentaenoic acid, or EPA, and docosahexanoic acid, or DHA) into one's diet. I won’t go into details as to why you should be using fish oil. Instead, I will let my boy Eric Cressey try to persuade you. [Link to Fishy Advice: Part I]. Needless to say, if your quest to burn off that pesky fat has come to a standstill, adding some fish oil to the mix may be just the thing you need to stoke the fat burning furnace.

Flax Oil- This is a great source of alpha-linolenic acid, a polyunsaturated fat that the body converts to DHA/EPA in the body, albeit not all that efficiently. Some good products that use flax oil are Udo’s Choice Oil and a few varieties made by Health from the Sun. You can also buy ground flax seeds, which are pretty tasty to add to things such as salads and protein shakes; doing so gives them a bit of a “nutty” flavor.

To reiterate, in the grand scheme of things, as Schutz (2004) wrote, whether or not your body will store excess body fat “is ultimately a problem of chronic positive energy balance mediated by a poor control of energy intake and/or a blunted total energy expenditure (not exercising),” (5). Also, you need to be cognizant of the TYPES of fat you are ingesting, not just the amount. Obviously, if your dietary fat comes from nothing but processed foods (trans-fats), you will suffer the consequences and be well on your way to a world of frustration. On the other hand, if your fat comes from “healthy” sources such as fish oil, olive oil, flaxseed oil, and mixed nuts, you will definitely be well on your way to a healthier and leaner “you”.

A Brief Word on Condiments

I’m not going to lie; condiments can be your best friend when you are dieting. They are useful tools for helping to break the monotony and blandness of your typical diet foods. However, one does need to carefully select which ones to use. Things such as mayonnaise, ketchup, and honey mustard should be avoided due to their high saturated fat (mayo) and sugar (ketchup, honey mustard) content. Miracle Whip, salsa, and regular mustard are much better options. In terms of dressings, I tend to lean towards vinaigrettes and light varieties (less fat and carbs); you can never go wrong with olive oil and red wine vinegar. Also, there are many spices that one can use to add a little zest to their foods without fear of them backstabbing their fat loss efforts. Creole, oregano, seasoning salt, chili powder, crushed red peppers, salt, pepper, minced garlic/garlic powder, and Mrs. Dash are all spices that I recommend to clients. Don’t be scared to experiment with various condiments, as they can be a crucial element to your success. Just be cautious of some of the “hidden” calories I outlined.

Conclusion

WHEW! Who knew I could be so long-winded? Hopefully, I was able to keep your attention and shed some light on what types of foods should comprise the bulk of your diet. In no way am I suggesting that these are the only foods you should be eating; I'm just reflecting on my own personal experience and experience with clients of mine. In my opinion, these are the foods that will yield the best results in terms of health and physique improvements. Sure, they aren’t the most fun or tasty foods to eat, but if you want to be able to fit into those pair of pants that you haven’t been able to wear since Patrick Swayze was considered cool, or if you want to be able to walk down the beach without fear of twenty year old girls cringing in disgust, then I highly suggest that you take some of these suggestions to heart…and stomach!

Discuss This Article

Tony Gentilcore is a NSCA-certified personal trainer based out of central New York. Beyond obsessing about what is going to happen in the next episode “Lost” and “24,” and participating in local wiffle ball tournaments, Tony is dedicated to helping people achieve their fitness goals through education about proper nutrition and training protocols. You can email him at tgentilcore18@yahoo.com

References
