



Four Fitness & Nutrition Myths

Urban legends I believe they're called. Things like Big Foot, the Loch Ness Monster, Yetis, "we never landed on the moon", Jim Morrison is still alive etc., just don't go away for many reasons. People love a good story that keeps developing and creates movies, books and other entertainment/economic ventures. These people include some who simply revel in controversy, others who believe any conspiracy theory because they have the "paranoid anti-government/big business attitude", extreme environmentalist or activists who don't get the big picture. And finally, some people actually know better but need a marketing edge in order to sell products including books, articles for fitness magazines or special machines that suggest spot reduction. The latter group will go so far as to find a "malleable scientist" (or one who is slightly less ethical and can be influenced by the dark side – i.e., \$) to support their product or concept by distorting science or taking a bit of truth and twisting it to start and perpetuate controversy that plays well to the non-scientist skeptic audience who will keep it alive.

Fitness myths that keep hanging around

Because there is not enough room in this newsletter to fully explain away the *current* (which means even if we do kill them today, I fully expect them to be resurrected again at some later point in time just as the Atkins stuff resurfaced after everyone had forgotten how it failed previously) top four ridiculous fitness notions, we will deliver only a brief explanation here and refer you to our website for more related information.

1 Sugars and sweeteners—including high fructose corn syrup—are unhealthy and making America fat

This one is perpetuated by people looking for a scapegoat or to sell a different sweetener. All top legitimate scientists agree that the cause of continuous weight gain in the populations of developed nations is a host of environmental, psychological and physiological factors—not sweeteners. Sweeteners are unfortunately guilty by association because sugars/sweeteners are in the foods and drinks (thus calories) *we choose* to consume. In other words, we get fat on anything (including if we only ate whole grains, fish and salads) if we consume more calories than we burn. We simply make poor food and drink choices. And don't forget, too much of any nutrient can be bad for you including, meats, vitamins and minerals, fish oils, etc. If we consumed sugars/sweeteners in moderation like we should or do with vegetables, there would certainly be no health-related issues, but we would probably fill the calorie gap with something else and then blame all our woes on whatever we chose when the real problem is simply self-inflicted weight gain.

High Fructose Corn Syrup (HFCS) has been recently targeted by the paranoid population—of course with no merit. It's just another urban legend, according to John S. White PhD, a leading research consultant who specializes in nutritive sweeteners. "These allegations—such as increased fat production or increased appetite—are based on poorly conceived experimentation of little relevance to the human diet, which

tests unphysiologically high levels of fructose as the sole carbohydrate, often in animals that are poor models for human metabolism."

Even the FDA, says White, has concluded that "high-fructose corn syrup is as safe for use in food as sucrose, corn sugar, corn syrup, and invert sugar."

So don't listen to me, listen the top field-related experts. Here is one last common sense tidbit (actually, two): On the safety issue, since the advent of HFCS (and remember the vast majority of the population is consuming it), the average lifespan has increased by ~two years— not that it's because of HFCS, but you get the point. HFCS isn't killing anyone since manufacturers started using it. On the issue of sugars, including fructose and HFCS making us fat, the American consumption of ALL caloric sweeteners has been going **down** since it peaked in 1999—to the tune of ~10 lbs./year per person—while obesity during the same time period has climbed more rapidly than any other time in our history! Do you get yet?!

I have to end this topic with a tongue-in-cheek comment: Chicken, vegetable and fish consumption has been on a steep rise since 1999, so I am just waiting for the nay-sayers or a new product marketer to point the finger at these foods next—based on, again, a little truth taken out of context and then twisted into a long, pompous speech to satisfy an emotional or financial attachment to an incorrect concept.

2 You can control where you lose fat (spot reduce)

I didn't want to come right out and say spot reducing because virtually nobody says they believe in it, but they still participate in related exercises or fall for gimmicks such as ab-rollers and other products that profess to "tone" (which translated accurately means "lose the flab covering the muscle") specific body parts. Here are two typical questions I get *after* everyone in the room agrees there is no such thing as spot reducing:

1) What is the best way to tone your legs, stomach and back?

Lose the body fat covering up your muscles that are as hard (toned) as any bodybuilders, just not as big. In other words, "toning muscles" is a misnomer for removing the fat that jiggles around when you move or touch it. Simply continue to consume fewer calories than you burn until the fat levels are reduced to your satisfaction. All that said, weight training can add muscle so that when you lose the fat your body has more pronounced lines or muscle definition because larger muscles help accentuate the body's natural contours.

2) If I have excess fat around my thighs, how can I make sure that I get rid of the fat there rather than somewhere else?

You can't—because you just agreed that there is no such thing as spot reducing, which should have always been obvious to you because your thighs generally move more than any other body part but the fat still ends up there. As you maintain a calorie deficit (eat less than you burn), body fat will leave from whatever area your body was genetically programmed to draw it from at that point in time. As a rule of thumb, last place on is the first place off, but this can change as you age. And again, if you maintain consuming fewer calories than you burn, that stuff on your thighs will go, it just might be the last place it leaves.

3 If your goal is body fat reduction, you must train in your *target heart rate* zone because you will burn more fat; if you go over it you will burn muscle

Plain and simple: If fat loss is the goal, the harder you work the more calories you burn and the faster you will lose fat if all else is equal (food intake). Ever seen a fat sprinter, professional basketball player or football defensive back that also has no muscles? These are three of the leanest, most muscular athletic-types and their training is almost exclusively high-intensity workouts that are well above or never in their *target heart rate*.

Target heart rates, or *zones*, were designed for competitive endurance athletes. By maintaining the designated number of heart beats/minute, they would be able to stay below a certain training threshold that otherwise would cause them to fatigue sooner.

The two points that escape the non-scientist are: **1)** the higher percentage of fat used during lower intensity exercise does not translate to more absolute fat being burned during the training period when compared to exercising at a higher intensity for the same amount of time. e.g., 60% of 100 calories = 60 from fat, but 40% of 200 calories = 80. The point is that you can burn twice as many calories with high intensity exercise in the same time frame and still burn more overall fat and more calories, which brings us to point **2)** At the end of the day it doesn't matter what your body uses for fuel during exercise (fat or carbohydrate/ glucose) when it comes to ridding yourself of body fat. The only thing that matters is how much fuel (calories) you burn in a day and how much you put back. In fact, if you trained for one hour at an intensity that caused you to use mostly glycogen (stored carbohydrate), thus very little fat (e.g. sprinting with little rest between bouts), you would not only use more overall calories during the hour but you would also continue to burn far more calories after the workout—and almost exclusively from fat stores because that's the main fuel source the body uses during rest—as compared to spending one hour training in your target heart rate.

The *target heart rate* training concept is specifically designed to allow you to burn *less* overall calories, which of course is not what you want if your goal is fat loss and you want to optimize your workout time. As far as the part about burning muscle with high intensity training—well, it is exactly the opposite of what actually takes place overall. High intensity training stimulates muscle growth. Just as weight training (the highest intensity exercise of all) must slightly “injure” the muscles in order to make them grow bigger, the same happens with other high intensity activities, but to a lesser degree.

In summary, exercise itself does not burn a significant amount of fat. It is the contribution of exercise to a person's total daily energy expenditure, including the intensity, that affects overall fat loss. In other words, exercise simply adds to your daily calorie needs, so do all you can during your workout time because the longer and more intensely you move, the greater the amount of calories you will burn, leading to a greater fat loss. And the less fuel you put back in, the more must be drawn from your fat stores during the non-workout portions of your day. Besides, high intensity exercise promotes muscle growth, not the other way around.

4 The two most common metabolism questions/myths

1) What happens to a person's metabolism when they consistently eat too little? Is it true you will stop losing fat?

To put your entire issue into perspective, first realize that the people around the world who truly die of starvation do not pass away fat. To be sure, when you severely cut calories your metabolism will make a slight adjustment, allowing it to run on fewer calories—but it's not a large

compensation. I generally get this question from overweight people who obviously eat too much no matter how many calories they tell me they consume. My answer to them: Nothing significant happens to your metabolism. If you need to lose weight and you are not, eat less and/or move more and forget about slowing your metabolism.

That said, the point is not to lose weight too fast by drastically reducing calories because, first and foremost, that method is miserable and generally not sustainable. Second, although there is the slight (but fairly insignificant in the big picture) down regulation in metabolism in response to a very low calorie diet, the main reason it may appear to slow down more than it actually does is because it's the extremely low calorie intake that is slowing YOU down. In other words, you become less energetic, forcing a reduction in your daily activities, and therefore burning fewer calories overall.

Take home message: Never blame failure on metabolism, no matter what anyone tells you!

2) I know plenty of slim people who don't exercise and claim they can eat anything they want. Are some people's natural metabolisms just higher than normal, allowing them to eat more without exercising?

Individual metabolisms do vary, but not much. And the people who stay slim and eat anything they want either don't want much (total calories) or move enough (daily activities including fidgeting) to cancel whatever they eat. In other words, people who get fat eat too much in relation to how much they move, whether they exercise or not. People who stay thin and don't exercise eat as much as they move. The calories in are countered by the calories out. In fact, the heavier you are (no matter who you are) the more calories the body burns.

Final note on metabolisms and plateaus: The fast and slow “metabolism thing” has been overblown and become a bad excuse for many people. Anyone can get their daily calorie burn (overall metabolism) as high as they need by simply moving or standing more.

The main reason the body comes to plateaus during dieting or exercise (besides cheating) is that when weight is lost and the more fit you become, your body uses less calories to perform the same work (because it's easier than when you were heavier and out of shape), forcing you to add work or eat less in order to continue progress.

My general recommendation for plateaus for people who eat well and exercise regularly (therefore are “tapped out” as far as time or cutting calories) is to simply increase your daily movements at home or at the office. See my February '06 Newsletter for tips. Additionally, you can try changing your workout, including the type of cardio you perform, which will help temporarily fire up your metabolism.

So there you have it. You can now take these myths off your list and get on with your fitness goals. And please...quit paying attention to the media/popular press and the people that use the content as the educational materials that drive their beliefs and conversations. Life is always simpler when you use common sense. I bet if you had never read anything at anytime regarding these issues, your common sense would have prevailed, allowing you to come to the same true answers. But hey, then I would probably be out of a job.

Here's to the next myth!

Neal