4 STRATEGIES FOR A FAST & FURIOUS METABOLISM

by STEVE COLESCOTT

"Fat melts off of him like butter on a hot skillet."

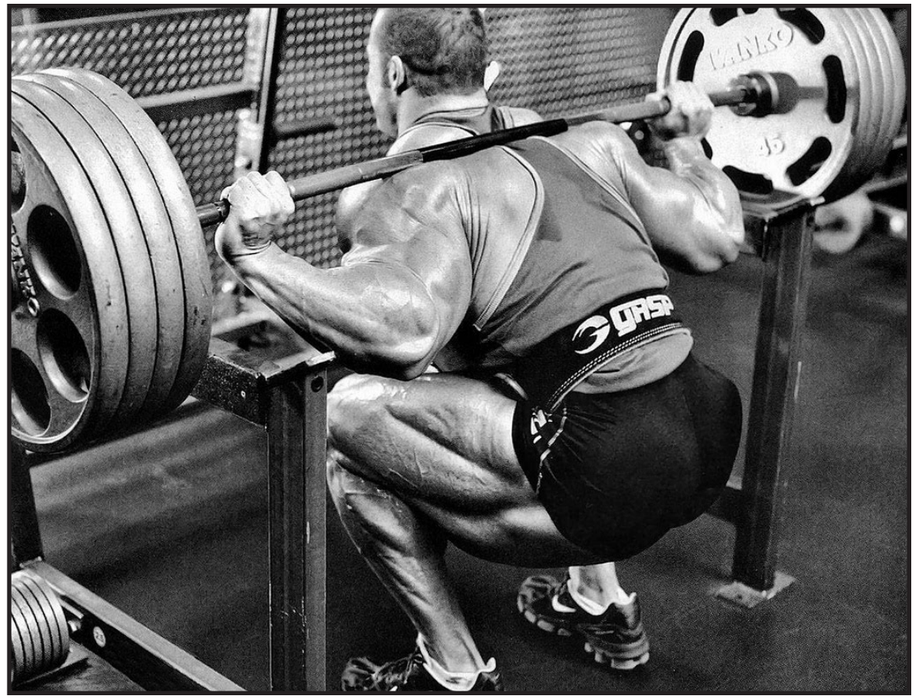
"He shovels it away without gaining an ounce. Does he have a hollow leg or something?"

"I wish I could eat ice cream and still have flat abs like she does. I think I may hate her!"

We have all heard comments like these, tinted with jealousy and providing the speaker with a ready-made excuse for their own lack of conditioning. Whether they realize it or not, the trait they are commenting on is metabolism — the fast and efficient one of their much-envied subject and the slow and plodding one with which they feel doomed.

These people seem to proceed with the assumption that metabolism is a predestined measure; permanently locked in at a genetic level. While many may choose to believe their metabolic rate is out of the range of controllable factors, the truth is far from that. We have a remarkable level of control over our metabolism, regardless of our age, and understanding methods for controlling this can change your health and appearance dramatically.

Your metabolism is composed of three primary components: 1) your basal metabolic rate (the energy needed to passively run all the processes required to maintain your body, 2) your voluntary activity level (all of the basic energy required for physical activities, be it typing at work, walking the dog, strength training in the gym or flipping the pages of your favorite muscle magazine, and 3) thermic effect of food (the energy cost to digest and assimilate the food you eat). All three of these factors can be tweaked to improve your own metabolism once you know the proper strategies.



Of these, basal metabolic rate accounts for about two-thirds of your daily caloric needs. About a quarter of your calorie requirements are used for physical activity. This of course varies widely depending on your job, lifestyle and workout duration and intensity. Thermic effect of food burns off about 5-15% of your daily calories. While this may not sound like much, this can make a big difference and it is an adjustment you can make immediately. Here are four simple strategies that will set these three metabolic components at a new level:

Step One: Focus on Strength Training

When dieting without exercise, weight loss has been shown to come pretty much equally from muscle tissue and bodyfat. Loss of hard-earned muscle tissue (and the resulting reduction in metabolic rate that this causes) is obviously not a desirable outcome. Exercise should be considered a necessity on any weight loss program — but what kind is best?

I have worked with dozens of training clients that were motivated to start an exercise program at the recommendation of their health care provider; usually because of obesity and the associated health symptoms (borderline or full-blown diabetes, chronic fatigue, increased heart attack/stroke risk, etc.) Invariably, they begin a program of low-intensity, long duration cardio exercise with no thought of including a strength training component.

Low intensity cardio was once considered the only method to reliably burn bodyfat. We have all seen those heart-rate based "Bodyfat Zone" charts mounted on the walls in the cardio area. Evidence shows us that, if indeed a greater percentage of the calories used for cardio in this range are taken from fat stores, the number of calories burnt at this low training intensity does not make a significant contribution to our daily calorie expenditure (plus it is incredibly boring).

Fortunately, we find there are two mechanisms in place to burn calories from exercise, (1) the calories actually used to perform the chosen exercise and (2) the energy needed for us to recover from that exercise. This post-exercise caloric deficit is referred to as EPOC (Excessive Post-exercise Oxygen Consumption). The exact cause of this increased caloric expenditure has been debated and most likely comes from multiple factors including removal of lactic acid, replenishment of glycogen, muscle cell repair and hormonal adaptations.

Studies on EPOC show us that following a traditional cardio session, we'll have a subtle metabolic increase for a couple of hours. With a heavy weight training workout however, our metabolism gets a noticeable boost for over 24 (possibly up to 32 hours) after its completion! Since few of us enjoy time on the treadmill, stepper or bike, this tells us our time might be better spent concentrating on our squats, presses and rows.

The research on EPOC is controversial, with many contradictory findings primarily due to the difficulty in controlling all the environmental factors involved in metabolism and the difficulty in collecting results over an extended time frame. But, bodybuilding wisdom verifies the metabolic-stimulating and calorie-burning value of intense strength training. The current findings seem to show that the caloric requirements of EPOC are significant and, to make things even more exciting, these caloric needs are primarily met through fat oxidation. Once again, further studies are needed but the evidence under the posing lights seems to bear out that our metabolisms are indeed jacked-up following an intense workout.

In addition to EPOC, regular exercise will actually increase the metabolism at a cellular level. This occurs because the increased energetic requirements of exercise cause the body to increase the number of mitochondria and the activity of those organelles. If you recall your junior high science classes, you know that mitochondria are known as the powerhouses of your cells, responsible for converting oxygen and nutrients into ATP. Our bodies are incredibly adaptive in nature, and mitochondrial increases tend to correspond with, and contribute to, increases in our metabolism. While the concept of increased muscle tissue adding to our metabolic rate is simple for most to understand, the role of increased mitochondrial activity should not be overlooked for its metabolic fat-shredding benefits.

Step Two: Emphasize More Protein

As a reader of this article, you are most likely aware of the two primary reasons bodybuilders universally prioritize their protein intake: 1) we need the amino acids from protein to recuperate and build strong new muscle tissue, and 2) protein helps us stay lean by stabilizing our blood sugar levels. There is a third major benefit to a high-protein diet though, and it has to do with the thermic effect of food (abbreviated as TEF).

While many dieticians feel that TEF is a negligible factor in fat loss, bodybuilders know its effect. After a large protein-rich meal, it is not uncommon for a conditioned athlete to feel perspiration on their forehead. This is from the increase in metabolic rate (and therefore temperature) brought on by the digestion of a large bolus of protein. In fact, TEF is also referred to as diet-induced thermogenesis — which definitely perks the ears up of any physique-minded athlete.

Protein has double the metabolic-stimulating effect of the other macronutrients (carbs and fat) and causes a sharp increase which lasts up to five hours following a meal. With bodybuilders eating five to seven meals a day, each containing a large dose of protein, the metabolic significance of TEF on your physical condition (waistline) is considerable. Following a well-structured, high protein, low to moderate carb diet will ensure muscle growth and leanness.

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Step Three: Eat More Often

When working with personal training clients there is a common phenomenon I invariably witness each time I adjust their diets. Once they increase their meals from the lazy one to three a day they have been consuming to a metabolically-respectable five or more daily meals, they report to me astonished sometime between the fifth and eighth day. Even though they are eating about every three hours (which seems often for them) they are surprised to find that they are hungry about thirty minutes before their next scheduled meal. This is a clear sign that they are metabolizing food faster and the effects of this eating plan are dramatically apparent.

Conversely, not eating enough, or often enough, will slow your metabolism. This is common among women trying to lose weight. They make the mistake of thinking that eating less will cause them to melt off fat, but they neglect to consider the fact that the body's feedback mechanisms (particularly the thyroid) will slow the metabolism to match their low food intake. While it may seem counter-intuitive, the body becomes more efficient at what we call upon it to do. If you are providing nutrient-rich, properly macronutrient-balanced meals every few hours, your body will adapt by dealing with them more efficiently — including a preference for storage of energy as glycogen in muscle cells (assuming you are training hard) as opposed to stored bodyfat.

Each of these meals should always contain protein, with the serving size individualized based on your bodyweight, goals and activity level. The meals directly before, after and during your workout should contain a large quantity of easily-absorbed protein. These act to offset the catabolic muscle breakdown of the training session so that, while others are trying to "play catch-up" hours after a workout, you are already replenished and well on your way to building new muscle.

The remainder of your meals should contain protein from either whole-food or a quality multi species protein powder source. These are the meals in which you should include your daily doses of fiber (from salads, fruits and veggies) and healthy fats. Fiber provides virtually no calories while it requires energy for digestion — a great metabolic stimulator. Consuming healthy fats (EFAs) has a metabolic stimulating effect. Most of your fats should come from unsaturated sources, such as nuts, fish oils, avocados olive oil or macadamia nut oil.

In addition to the metabolic effects of a high-protein, low-carb, healthy fat and fiber diet there are also beneficial effects on your hormonal system. This way of eating will stabilize your blood sugar level, predisposing you towards glycogen storage in muscle tissue as opposed to fat and encouraging the natural production of muscle-promoting hormones.

Step Four: Rethink Your Cardio

The typical layman thinks cardio is the single most important method for fast fat loss. Research and gym wisdom seem to refute this theory. Since form follows function when it comes to physique, you must ask yourself if you truly wish to look like a long-distance runner. Charles Poliquin shares an observation from the athletic world that verifies this. He points out that the bodyfat percentage of the typical elite-level distance runner ranges in the mid-teens, while that of the average elite sprinter tends to be in the single-digits. Both numbers are very low (these are elite athletes so they never want to perform with added baggage), but it seems obvious that the extreme low-intensity, long duration marathon training of the first group is inferior to the short-duration, anaerobic intensity of a forty-yard dash. In addition to this, the rounded, glycogen-filled muscles of the sprinter are obviously closer to what most of us want in terms of appearance.

For those that just want to get lean but don't really need to reach a shredded level, cardio may not even be necessary, as intense regular and progressive strength training and a clean diet may be all that is required. Instead, perform metabolic work with a greater intensity component. If you want to jack up the intensity of your fat-burning workouts, there are three different workout protocols that I recommend:

• The first is HIIT Cardio. This stands for high-intensity interval training. For many this will be the easiest method since it utilizes the same cardio equipment (stepper, treadmill, elliptical trainer, etc.) you are used to, but in a more effective manner. Following HIIT protocol, you will be alternating periods of extreme intensity (1-2 minutes of sprinting) with slower recovery periods (2-3 minutes of slow jogging or fast walking). With traditional "fat-burning" workouts you may not feel yourself breathing hard until you are halfway through the rather long, arduous workout. But with HIIT Cardio, you will be sucking wind hard after your very first sprint interval and you will swear you can feel the fat melting off of you. Best of all, your workouts will be done in 20 minutes, not 45-60.

• The second is Tabata Method Training, a grueling protocol developed by Japanese researcher Dr. Izume Tabata. This involves doing timed reps of a compound exercise for an all-out, twenty-second interval. You then rest for ten seconds

and repeat (no dragging your feet!) for a total of eight cycles (the entire duration is four minutes). This is metabolic training at its most excruciating and efficient. Use an exercise that activates a large amount of muscle tissue. You can use an Air Dyne but the Dumbbell Squat and Press is a great option. This exercise involves performing a squat with dumbbells combined with an overhead press. The dumbbells are held in the "rack position" (bottom of a dumbbell press) and use the upward drive from your squat to smoothly start the pressing motion. Experiment with different compound exercises as it may relieve some of your pre-workout dread. I have done a Clean-and-Press with a heavy medicine ball, Front Squats (Olympic lifting coach Dan Johns' favorite), and Burpees while wearing a heavily-weighted X-vest. They ALL make for a soul-searching, character-building four minutes that are second to none in

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CONTROLLABLE FACTORS THAT AFFECT YOUR METABOLISM

Basal Metabolic Level	Activity Level	Thermic Effect of Food
Can be increased by:	**Can be increased by:**	**Can be increased by:**
◆ Increasing your lean body mass (pack on muscle) ◆ Increase in mitochondrial activity (with consistent intense training) ◆ Strength training (E.P.O.C.)	◆ More frequent workouts (brief and often) ◆ More intense training ◆ Extra workouts (metabolic training) ◆ Living a less sedentary lifestyle	◆ Increased calorie intake ◆ More frequent meals ◆ Higher protein intake ◆ Substitute starchy carbs with fibrous carbs ◆ Take in healthy fats
Can be decreased by:	**Can be decreased by:**	**Can be decreased by:**
◆ A loss of muscle tissue ◆ Decrease in mitochondrial activity (from long training layoffs) ◆ Fasting/starvation (or overly restrictive dieting)	◆ More frequent workouts (brief and often) ◆ More intense training ◆ Extra workouts (metabolic training) ◆ Living a less sedentary lifestyle	◆ Reduction in caloric intake. ◆ Reduction in protein intake.

the fat-burning department.

• The final (and my personal favorite) protocol is Training Complexes. This involves performing two or more weight training exercises in superset fashion. This is similar to the GPP/Core Series I have recommended in previous articles as a pre-workout warm-up, except you will be using heavier weights. I like to choose a variety of compound exercises that work a majority of the prime movers of the body in one big giant-set. For example: 1) Push-ups, directly to 2) Burpees, directly to 3) Dumbbell Clean-and-Press, directly to 4) V-up Leg Raises, directly to 5) Under-grip Chins. Do three to four of these series' with a 60-90 second rest period between them (no rest between exercises). When doing these for metabolic conditioning, I recommend 6-10 reps (you can go higher reps with some exercises that rely on bodyweight (chins, push-ups) or if you want, you can do a number of exercises with a single pair of dumbbells in order to cut recovery time between exercises or the amount of equipment you will need to tie up.

• A variation on this, if weather and equipment permits, is the performance of a Medley Complex. These are a blast and can share similarities to some of the events used in strongman competition. For instance, you can set up some dumbbells, a kettlebell and/or medicine ball at a park in a huge square. Perform six to ten push presses with the dumbbells, sprint 20 yards to a pair of monkey bars, do as many chins as possible, sprint 20 yards to a kettlebell, perform a set of kettlebell swings, sprint another 20 yards, do a dozen push-ups, then collapse into a gelatinous heap on the ground. Once you have done one or two of these, you will have no doubt that your body is melting off bodyfat (while preserving your muscle tissue).

Which of these should you use and how should they fit into your program? I suggest you use all of the above. If you are like me and feel like a dance instructor if you spend too much time on the cardio equipment, mix some good old-fashioned iron into the equation. In summer months, go to the park and do Medley Complexes twice a week and maybe a single HIIT cardio workout. In the winter, find a quiet corner of the gym to do Complex Training with a pair of dumbbells and do a single Tabata session on a weekend day. Just keep in mind that these should be done on non-training days or in the evenings at least 6 hours (and 2-3 meals) after your weight training sessions. Think of these as extra workouts; and therefore just the icing on your workout cake.

The Tabata Method and Training Complexes are both techniques that work particularly well if you have a training partner with a stopwatch to keep you honest. Each series is so intense that they only take three or four minutes to complete (although it will seem longer while you are doing it) so you can easily supervise each other's metabolic training with a limited time investment.

How Does It Fit Together?

You may be wondering, how does one incorporate the strategies we discussed? Which ones deliver the best bang for the buck? Truthfully, they work best when used together. Your goal should be a consistent shifting of your body towards a muscle-building, fat-shredding environment.

So even a subtle shift in caloric use by gradually increasing your lean body mass can bring about dramatic improvements when added to a second subtle shift brought about by intensified cardio. Adjusting your proportions of protein to carbohydrate and eating more frequent, nutrient-rich meals will notch your metabolism up to an even higher level. Keep in mind that one pound of fat is the equivalent of 3,500 calories of stored energy (calories) so the metabolic shifts discussed in this article may seem minor but their ability to gradually whittle away at your bodyfat can be dramatic.

Following the principles in this article will make a fast and significant change in your overall metabolic level, allowing you to either burn off bodyfat while consuming the same number of calories you previously maintained your weight at, or staying lean and building muscle at a higher calorie intake than you could previously.

Follow these principles consistently for twelve to eighteen months and you'll be "blessed" with a fat-incinerating BMR. Your caloric expenditure from activity has increased (since your ability to train intensely is greater). Thermic effect of food continues to increase as you are able to eat more and still stay lean. It is at this level that the bodybuilding lifestyle pays off. This is when your exceptionally well-trained metabolism allows you to make it look easy!

This should demonstrate to you the amount of control you actually have over your metabolism, and through that, your bodyfat levels. The techniques in this article most likely will not do much to improve your hearing, which is unfortunate since a few months from now you might hear strangers making disparaging comments about how lucky you are to be blessed with a great metabolism. They never need to know that it had nothing to do with you winning the genetic lottery, but rather was the result of intelligently applied knowledge. Let them go on thinking you were just born that way!