

# AMAZING

# WEIGHT LOSS

## SECRETS

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- ✓ **Maximize Fat Burning!**
- ✓ **Increase Your Metabolism!**
- ✓ **Dissolve Belly Fat!**
- ✓ **Double Your Energy!**

# Amazing Weight-Loss Secrets

## Top Scientists Answer 10 Frequently Asked Questions About How to Lose Fat Once and For All!

If you know the answers to these ten questions, you *do not* need to read this article. However, if this “pop quiz” leaves you lean on replies, *and* you want to build a more muscular physique, the information in this article might be just what the doctor ordered.

- 1 To maximize your body’s fat-burning potential, how much aerobic exercise must you conduct each day?
- 2 To get lean, what percentage of your total calorie intake should come from dietary fat?
- 3 If you’re trying to lose bodyfat and maintain muscle, how many grams of protein should you consume daily?
- 4 On a typical weight-loss “diet,” what percentage of the pounds you lose will come from stored bodyfat?
- 5 How does the number of times you eat per day affect your ability to lose fat?
- 6 If you’re trying to lose fat, what’s the most important time to consume a carbohydrate-rich meal?
- 7 How do your insulin levels affect your ability to lose fat, and which foods control this potent hormone?
- 8 What are the two most important meals of the day for dieters?
- 9 When trying to lose unwanted adipose tissue, how long should you wait after a workout before eating?
- 10 What types of food must you avoid eating before your workout if you want to get lean?

So, how’d you do? Did you ace this exam, or do you think you might have gotten an F (as in Fat!)?

Well, if you need an extra “study session,” you’re in luck. You see, we took these ten questions to seven leading experts (scientists, doctors, professors). What we got is a “lesson” on how proper knowledge (when combined with discipline, drive, and determination!) can help us win the war against fat, once and for all. Here’s what they had to say:

## To maximize your body's fat-burning potential, how much aerobic exercise must you conduct each day?

According to Charles Staley, B.Sc., MSS, a sports conditioning specialist and vice president of program development for the International Sports Sciences Association, one of the biggest myths about fat loss is that aerobics is the best form of exercise to get lean.

"If aerobic exercise really is the solution, why are aerobic exercise classes filled with heavy folks who, despite their 'best efforts,' have failed to transform their physiques?" asks Staley, who goes on to point out, "Compare aerobic vs. anaerobic athletes: look at the physiques of 100-meter sprinters and then at long-distance runners, such as marathoners. Although most sprinters do little or no prolonged aerobic exercise, they are just as lean—if not leaner—than their aerobic counterparts. They also have better built physiques, which are byproducts of the muscle they've gained from hours in the weight room and short-term, intense running. By contrast, the marathoner's lack of muscle gives him/her a 'flat' physique."

Mauro Di Pasquale, M.D., who's been studying the science of sports and fitness for over three decades, is also adamant that long bouts of aerobic exercise are not the best way to burn fat. "The scientific evidence suggests weight training, because it increases the metabolic rate through an increase in muscle, is simply a better form of exercise than aerobics," he explains.

Dr. Di Pasquale also points out that too much aerobics can be counterproductive and result in decreased testosterone, a loss of lean body mass, and is not even as good a fat burner as high-intensity weight training.<sup>1,2,6,9,17</sup>

According to Dr. Richard Kreider, a leading sports medicine expert and professor at the University of Memphis, studies show the best way to lose fat and maintain muscle mass is to burn at least 300 calories per day through exercise. Dr. Kreider agrees with the other experts; however, he adds that some type of additional conditioning exercise may also be beneficial for fat loss, explaining, "Although any type of exercise which increases calorie expenditure is beneficial for fat loss, combining weight training—at least three hours per week—with an exercise such as sprinting appears to be very effective."<sup>1,5,10,13</sup>

**Answer:** Aerobic exercise can help you burn calories, there's no doubt about it, but to get lean, you don't have to do hours of aerobic exercise each week. In fact, too much can be worse than none at all as it may overstress the body.

## To get lean, what percentage of your total calorie intake should come from dietary fat?

According to Brett Hall, R.D., Director of Research and Development for Experimental and Applied Sciences, it appears the amount of fat in your diet, regardless of the number of calories, at least partially determines the amount of fat your body will store.<sup>17</sup> In other words, the more fat you eat, the more you'll store—even on a low-calorie diet. So it's important to keep your fat intake at about 20% of total daily calories. But, Hall emphasizes, "Despite popular belief, it is not true that eliminating fat from your diet altogether will automatically make you lean. Your body needs some fat to stay healthy."

When counseling athletes, the first thing Dr. Kreider does is explain how to reduce (not eliminate) dietary fat intake. Studies indicate people who are successful in losing fat and maintaining the loss are those who ingest less than 40 grams per day of fat in their diets.<sup>2,6,9,13</sup> Typically, this also helps regulate total calorie intake as well as reinforce healthy eating habits by replacing high-fat foods with low-fat foods.

**Answer:** To lose bodyfat, keep your total dietary fat intake around 20% of total calories.

## If you're trying to lose bodyfat and maintain muscle, how many grams of protein should you consume daily?

Experts seem to agree that one of the most important aspects of a healthy fat-loss diet is making sure you're consuming enough protein. For example, Dr. Di Pasquale points out, "Studies show the anabolic effects of intense training are increased by a high-protein diet. And when you're losing fat, you need *even more* protein because your body burns more protein on a low-calorie diet."<sup>15</sup>

On average, Dr. Di Pasquale recommends about one gram of high-quality protein per pound of bodyweight every day for anyone who is exercising regularly and wants to maximize lean body mass while losing fat. That means if you weigh 180 lbs, you'll need about 180 grams of protein daily.

Dr. Di Pasquale also highly recommends protein supplements because consuming this much protein can be difficult with whole foods alone. "A combination of whey and soy protein works well; the soy may also give your thyroid hormones a boost."<sup>14</sup>

Brett Hall emphasizes, "Two of the most important times to consume protein are right before bed and when you get up. This should help decrease the catabolic or muscle-wasting effects of the eight- to ten-hour fast most go through between their last p.m. and first a.m. meals. If you wake up during the night, that's a good time to eat more protein to perhaps decrease the muscle catabolism even further."

**Answer:** One gram of protein per pound of bodyweight each day might help those engaged in an intense exercise program maintain muscle while dropping fat.



## On a typical weight-loss “diet,” what percentage of the pounds you lose come from stored bodyfat?

“Most of the athletes I’ve worked with believe they have to severely restrict calories to lose fat. However, even though they will lose fat if they restrict calories as they would on a typical weight-loss diet, about *half* the weight they lose is muscle mass.<sup>4</sup> Consequently, the gains they work so hard for diminish, and they get weaker,” explains Dr. Kreider, who continues, “What’s worse, if the lowered calorie level is maintained long enough, not only will training adaptations lessen, the athletes may be more susceptible to overtraining. Once overtrained, it may take weeks to several months for the body to recover despite reductions in training volume.”<sup>11</sup>

“If you don’t eat enough, your body starts breaking down muscle for energy,” explains Brett Hall. “If you’re trying to lose fat and maintain or gain muscle, the goal is to not starve yourself by maintaining a very low-calorie diet.<sup>6</sup> Work with your body—feed it.”

Experts seem to agree that reducing your calorie intake to a level 300 to 500 below your maintenance level produces favorable results. Over time, with a proper weight-training regimen, this typically results in a one- to two-pound-per-week loss of fat while maintaining or even gaining muscle mass.<sup>1,5,10</sup>

For many fitness buffs, consuming a number of calories equal to 10 to 12 times their bodyweight works well. For example, if you weigh 180 lbs, eating 1,800 to 2,160 calories per day is a good starting point.

Dr. Kreider also explains that because exercise increases energy expenditure typically by 400 to 800 calories per hour depending on the intensity of training,<sup>1,5,10</sup> you can estimate how many calories you need per day by adding your exercise energy expenditure to your normal daily needs.

**Answer:** On a typical low-calorie diet, you’ll lose as much muscle as fat! To cut the fat and keep the muscle, eat a high-nutrient diet, and moderately restrict calories.

## How does the number of times you eat per day affect your ability to lose fat?

All of our experts agree that to lose fat and maintain muscle, you have to eat! Relatively small, frequent feedings are a must.

“By consuming six meals per day, you create a metabolic environ-

ment custom tailored to fat loss and muscle growth,” explains Dr. Jeff Stout, a professor of exercise science at Creighton University. “Eating a portion of carbohydrates and protein every three hours helps reduce cravings and feelings of deprivation, support your metabolic rate, and keep blood-sugar levels stable [leading to more consistent energy levels and fewer cravings]. And the steady flow of amino acids and glucose helps feed muscle tissue as well as ‘blunt’ the body’s typical ‘starvation response’ [depressed metabolism] when on a low-calorie diet.”<sup>8,11</sup>

Dr. Stout adds, “The timing and quality of foods ingested, especially before and after a workout, can often be the difference between successful fat loss and another failed attempt. Skipping breakfast, neglecting post-workout meals, and consuming high-glycemic carbohydrates [which raise blood-sugar levels] before workouts spells fat-loss failure.”

“Another reason eating often helps you lose fat is because of the ‘thermodynamic’ response to food,” explains Dr. Matt Vukovich, Clinical Research Director for Experimental and Applied Sciences. (What that means is when you eat, your body expends calories to digest the food.) “Digestion by itself requires calories, so the more often the body must break down food, the more efficient it becomes.”<sup>8,11</sup>

**Answer:** An ideal nutritional strategy for losing fat and maintaining muscle mass is to consume six relatively small, protein- and carbohydrate-balanced meals (one every few hours) throughout the day.

## If you’re trying to lose fat, what’s the most important time to consume a carbohydrate-rich meal?

According to Dr. Stout, the most important time to consume a carbohydrate-rich meal is about an hour after a workout. “Following exercise, the body is somewhat depleted of glycogen, and insulin sensitivity is up. High-glycemic carbohydrates are the preferred source to replenish the body’s energy stores. Not only does this result in greater storage for recovery and subsequent workouts but it also significantly decreases muscle breakdown.”

Many experts seem to agree that to maximize the fat-burning effects of exercise, you should limit the intake of high-carbohydrate

foods, such as pastas, breads, bagels, and such; however, for approximately two hours after an intense weight-training workout, the body uses carbohydrates to reenergize muscle tissue. “Not only can a post-workout, carbohydrate-rich meal speed recovery time during a fat-loss program, but since carbohydrates are ‘protein sparing,’ they can minimize the loss of muscle tissue, which plagues many dieters,” explains Dr. Vukovich.

**Answer:** The best time to consume a carbohydrate-rich meal or supplement on a fat-loss program is about one hour after an intense weight-training workout. For example, if you’re using a creatine supplement stacked with a carbohydrate blend (such as Phosphagen HP), this would be a good time to consume that drink.

## How do your insulin levels affect your ability to lose fat, and which foods control this potent hormone?

“Controlling and properly timing the fluctuation of your insulin levels can indeed have a significant impact on your ability to not only lose fat but maintain and/or build muscle at the same time,” explains Dr. Stout. “Insulin is both an anabolic *and* anti-catabolic hormone. It ‘escorts’ nutrients, like carbohydrates [glucose] and protein [amino acids] into cells.”<sup>14,16</sup>

According to Dr. Vukovich, “The anabolic and anti-catabolic nature of insulin is both a blessing and a curse. A blessing because it can help stimulate muscle growth and slow muscle wasting. A curse because it does the same with fat. High insulin levels that support muscle growth also can promote fat storage. It is possible, however, to separate these effects. It all comes down to timing.”

Brett Hall explains, “If you spike your insulin level when body fuel stores are low [like after a workout], the nutrients from your meal will be driven mainly into muscle cells to replace energy stores and deliver amino acids for recuperation and growth. However, if you spike your insulin levels while your energy stores are full, which is most of the day, then a good portion of the carbs and even protein will probably be converted into fatty acids and diverted to fat cells for storage.”

Hall emphasizes that during a fat-loss regimen, you may want to spike insulin production only once a day, following your workout, to stimulate muscle recuperation.<sup>7</sup>

The rest of the day you want to maintain an even insulin level to allow the body to use fat as fuel and avoid fat storage.

“Limit your carbohydrate intake, eat a protein-rich diet and a little fat with every meal—and focus on eating low-glycemic carbs such as peas, kidney or black beans, barley, and yogurt,” states Hall.

**Answer:** When your insulin levels are elevated, your body cannot burn fat. Therefore, it is important to keep insulin levels as stable as possible throughout the day by consuming frequent protein- and carbohydrate-balanced meals. However, scientific evidence suggests that spiking insulin levels (by consuming a relatively high carbohydrate meal or supplement) following exercise might help prevent muscle loss and overtraining.

## What are the two most important meals of the day for dieters?

“The theory of meal patterning suggests you should eat your biggest meal in the morning and your smallest meal at night,” explains Dr. Stout. “Since the metabolic rate is accelerating in the morning and slows down at night, it’s more likely the calories consumed during breakfast will be utilized by the body and not stored as fat. Skipping breakfast, on the other hand, may result in a loss of muscle and a subsequent decrease in metabolism.”

Brett Hall points out, “The post-workout meal is equally important as breakfast. Following exercise, the body exhibits an elevated metabolic rate and elevated cortisol levels; thus, a lack of nutrients following exercise results in muscle-tissue breakdown. Research shows the protein synthesis rate doubles following exercise and remains elevated for over 24 hours.<sup>3</sup> In other words, the body is primed for protein.”

“Some scientific evidence suggests your post-workout meal should contain as much as 30% of your total daily calorie intake,” says Swedish scientist Torbjorn Akerfeldt.

**Answer:** The two most important meals of the day for dieters are breakfast (which should be rich in protein and carbohydrates) and your post-workout meal, which should be your highest carbohydrate, and, quite possibly, your highest calorie feeding of the day.

## When trying to lose unwanted adipose tissue, how long should you wait after a workout before eating?

“Following a workout, your energy stores are fairly depleted, and your muscles are like sponges waiting to soak up carbohydrates and proteins. At the same time, this energy depletion, combined with the fact that your metabolic rate is racing, is forcing your body to rely on fat as fuel. So you are actually burning more fat just standing around after your workout than you were during, say, your first 15 minutes of exercise,”<sup>12</sup> explains Hall. “To maximize the ‘residual’ fat-burning effects, wait about an hour after your workout before you eat. That way, your body has to continue to rely on fat stores for fuel. When you do eat, you should have a pretty clean high-protein, moderate-to high-carb, low-fat meal, such as a high-quality meal-replacement shake. This will supply your hungry muscles with carbs for glycogen replacement and protein for muscle repair without slowing the digestion and absorption process with unnecessary fat.”

Torbjorn Akerfeldt explains, “Intense exercise, especially when performed first thing in the morning, on an empty stomach, increases



lipolysis [fat burning] significantly. Even after the exercise session is over, the body continues to rely on stored bodyfat to sustain its metabolic requirements. Therefore, those who seek to maximize fat-burning should 'ride the wave of lipolysis' and continue to fast for an hour after their exercise session."

**Answer:** Scientific evidence shows the fat-burning effects of exercise can be optimized by waiting one hour after training before consuming your post-workout meal.

## What types of food must you avoid eating before your workout if you want to get lean?

"Many fitness buffs have been convinced that to get a 'good workout,' they need to have some type of 'energy food,' like a piece of fruit, a sports drink, a bagel, etc. before they hit the gym. However, if your goal is to burn bodyfat, that is *not* a good idea," states Dr. Stout. "During the initial stages of an exercise session, your body will preferentially burn glucose [blood sugar] as fuel. The more glucose immediately available, the longer it will be until you actually start burning fat. Thus, if you

consume a high-carbohydrate sports drink or an energy bar before you exercise, there's a chance that, during your workout, you might not tap into stored bodyfat at all."

Dr. Vukovich agrees with Dr. Stout and adds, "Some studies suggest growth hormone [GH] is a potent lipolytic hormone. Intense exercise following a three-hour fasting period augments the endogenous secretion of GH significantly." (What Dr. Vukovich is saying is, if you want to get the maximum GH boost during your workout, don't eat for a few hours before you train.)

Brett Hall suggests, "If you feel you need to eat something before you exercise, try a low-glycemic snack [a food that doesn't cause a significant release of insulin, which, as explained earlier, can prevent fat burning] such as an apple, yam, or peanuts. These foods can actually give your exercise performance a boost without significantly impeding fat burning."

**Answer:** If your goal is to lose fat fast, you should avoid high-carbohydrate drinks such as juices and Gatorade-like products, fruits, energy bars, and such before and during exercise. Perhaps the best thing to eat before your workout is a low-glycemic snack or nothing at all. And be sure to drink ample amounts of water before, during, and after your workout.

## Conclusion

So there you have it—the real scientific opinion—the real answers to these ten frequently asked questions about how to build a lean, healthy physique. Now that you've completed this "lesson," go back to the beginning of this article and see if you can now answer all ten questions, and even more important, think about how you can *apply* them to your own fat-loss program, so you can ace the most important exam of all, which is building your best body ever!

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