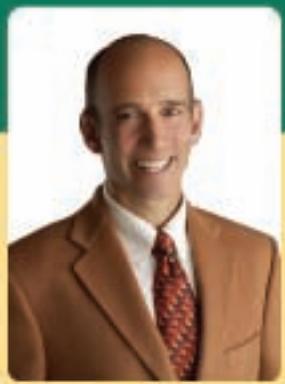


The Secret of Six-Pack Abs

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It seems like developing flat, toned abdominals tops just about everyone's list of fitness goals. However, from a fitness standpoint, aspiring to get the "perfect set of abs" should be balanced with the type of training that will best enhance your overall core strength and function.

Not that sporting a six-pack won't inspire self-confidence and the undeniable envy of everyone at the gym, but going beyond the six-pack by developing a strong core can serve you in a number of other ways, which I'll be discussing shortly.

The good news is, you already HAVE a six-pack. The bad news is, if you can't SEE it, then you have a few inches of fat to deal with first.

This abdominal fat layer, which lies between your muscles and abdominal wall, is what you must "melt away" in order for your six-pack to emerge. The first step to six-pack abs, then, is to reduce your overall percentage of body fat. In addition to tweaking your diet (or in some cases, a complete dietary overhaul), there are exercises that can assist you in sculpting the abs of your dreams. In this report, I'll be discussing a number of strategies that will help you uncover that six-pack you've been hiding all these years!

A Strong Core for Your Body is Like a Solid Foundation is for Your House

Beyond aesthetics, having a [strong core](#) is central to good health and physical stability. Your core is actually much more than your six-pack. It consists of your entire trunk—everything from your pectorals (chest muscles) and back, all the way down to your glutes (buttocks).



Your core, and the muscles that make up your core, help you in a number of ways. A strong core can help provide these benefits:

- Good posture
- Strong balance, stability, and coordination
- Ease of everyday movements, like reaching and bending
- Increased ability to retain your urine and help avoid incontinence

A strong core is also important for preventing pain and injuries to your lower back. Regardless of your age, a strong core can decrease your risk of falling, and the various areas of your body will simply work better together.

What Makes Up Your Core?

While your abdominal muscles are relatively small in comparison to other skeletal muscles, the core region of your body, as a whole, is quite large. This complex area is composed of many different muscles differing in size, shape and function. Paring it down further, the abdominal section of your core consists of the following four regions:

1. **Rectus abdominis**—This is what you know as the "six-pack." It is the most *superficial* muscle group of your abdominal area, allowing you to flex and bend your spine and stabilize your pelvis for walking and running.
2. **Transversus abdominis**—These muscles are the *deepest* muscle fibers in your abdominal wall, working like a belt to help compress the contents of your abdomen. This muscle group also helps you flex and bend your spine.
3. **Internal and External Obliques**—These are the muscles on the sides of your trunk. They can function independently to rotate your torso and laterally flex your body. When both sides contract simultaneously, they help you flex your spine while compressing your abdominal wall. Strong oblique muscles can improve your lower back health.
4. **Erector spinae**—These muscles are not actually abdominal muscles, but they are an important part of your core because they're the main igniters in back extension, allowing you to pick up heavy objects in front of you and stand tall while doing so. These muscles begin at your neck and extend down to your lower back.

Optimal Nutrition for Fat Loss



Before discussing specific exercises, it's important to understand the nutritional aspects of your fitness plan, since no amount of "crunches" will trim the fat off waistline. The effect of [abdominal exercises](#) on abdominal fat was investigated by Southern Illinois University in 2011, and you might be surprised at their findings. Twenty-four adults did seven abdominal exercises five days a week for six weeks. They didn't lose any belly fat—or fat *anywhere* on their bodies, for matter.

This suggests that the key is not more abdominal exercises, but the addition of complimentary strategies, and nutrition is a significant one.

Eighty percent of your ability to reduce excess body fat is determined by what you eat, and the other 20 percent is related to exercise and other lifestyle habits. In order to achieve that classic six-pack look, men need to get their body fat down to around six percent, and women to around nine percent.

My [nutritional plan](#) has an excellent success rate in terms of weight loss and optimal health, a cornerstone of which is significantly reducing sugar and grain consumption.

Sugar, particularly [fructose](#), and excess grains promote [insulin resistance](#) and retention of body fat. Fructose is one of the most pernicious saboteurs of your health and fitness goals, hiding in so many processed foods and beverages that it's nearly impossible to avoid, unless you're an extremely diligent label reader.

You should also make sure your [vitamin D](#) level is optimized by having your blood level checked. Most people are deficient in vitamin D and don't know it. If you are one of them, then you'll want to increase your vitamin D through increased exposure to the sun, use of a safe tanning bed, or by taking an oral vitamin D3 supplement.

The following chart summarizes the basic strategies of my nutritional plan.

Limit your fructose to less than 25 grams per day, and, ideally to less than 15 grams per day, as you're likely consuming 'hidden' fructose if you eat even small amounts of fruit, processed foods or sweetened beverages	Limit or eliminate all processed foods , and consume organic, locally-grown foods whenever possible	Eliminate all gluten , and highly allergenic foods from your diet
Increase the amount of fresh vegetables in your diet, and consider juicing	Eat at least one-third of your food uncooked (raw), or as much as you can manage	Avoid artificial sweeteners of all kinds
Swap all trans fats (vegetable oils, margarine etc.) for healthful fats like raw grass-fed organic butter, palm oil, coconut oil, and low omega-6 fats such as beef tallow	To rebalance your omega-3 to omega-6 ratio, take a high-quality omega-3 supplement, such as krill oil , and reduce your consumption of processed omega-6 fats from vegetable oils (trans fats)	Drink plenty of pure water

What about Starchy Carbs?



While I recommend avoiding ALL grain carbs, including organic grains, I believe there may be some merit to the hypothesis of “safe starches,” as explained by Dr. Paul Jaminet author of [Perfect Health Diet](#). He and his wife Shou-Ching, a harvard biomedical scientist, have collaborated to create a refined Paleolithic diet approach that I believe can be quite valuable. Keep in mind there is no one perfect diet that suits everyone, so this is merely a starting point. You will need to listen carefully to YOUR body and its response to macronutrient ratios and fine-tune it as needed. Some people do very well on extremely low carbohydrate diets, but others do not. You can learn more about this by listening to my interview with [Dr. Jaminet](#).

As far as the optimal ratios of carbohydrates to fats and proteins, Dr. Jaminet’s recommendations are as follows:

- ##### 20 to 30 percent of daily calories: carbohydrates, mainly from "safe starches" such as rice or potatoes; partly from fruits, berries, and vegetables
- ##### 15 percent of daily calories: animal protein (about 200 to 600 calories per day)
- ##### 55 to 65 percent: healthful fats, especially low-omega-6 fats such as beef tallow, butter, fish oil, coconut oil, palm oil, and olive oil. (Fats are ideally combined with acids like lemon juice or vinegar, or fermented vegetables. Keep in mind that as you decrease your carb consumption, you need to replace them with healthy fats. Replacing carbs with too much protein can actually cause health challenges similar to eating too many grain carbs and sugars.)

Dr. Jaminet’s perspective slowly won me over, simply because I have personally experienced some of the health challenges he brings up as being linked to glucose deficiency. I noticed that when I restricted my carbs to vegetables only (cutting out all grains and non-fiber starches), it paradoxically raised my triglycerides. I would also get extremely fatigued when working out, and it worsened my kidney function, too. So, I believe I've proved to myself you *can* go too low on glucose. Balance, clearly, is key. According to Dr. Jaminet, you may be able to tolerate an *extremely* low-carb diet if your health is really good, because your body can manufacture some glucose from protein. Others may not fare as well without any form of dietary glucose.

Turning Your Body into a Fat-Burning Machine

If you want to dissolve that excess abdominal fat, you have to increase the number of calories you burn each day, in addition to making the necessary dietary changes.

One of the fastest ways to burn more calories is to gain more muscle! For every pound of additional muscle you gain, your body will burn an additional 50 to 70 calories per day. So, if you gain 10 pounds of muscle, you will automatically burn 500 to 700 more calories per day than you did before.

Furthermore, your muscles also participate in the regulation of glucose and lipid metabolism and insulin sensitivity, protecting you against obesity, diabetes and cardiovascular disease.

One of the keys to fat metabolism and muscle gain lies in how much [human growth hormone \(HGH\)](#) your body makes. HGH is a vital hormone that is key for physical strength, health and longevity. In children, HGH helps them grow. But in adults, HGH is very involved with metabolic function, helping your body build and maintain muscle mass.

You have three different types of muscle fibers:

1. Slow twitch
2. Fast twitch
3. Super-fast twitch

If you want to naturally increase your body's production of human growth hormone, you must engage your *super-fast twitch* muscle fibers. Unfortunately, most typical forms of exercise do NOT engage these super-fast fibers, so they offer no benefit for your HGH levels. Traditional cardio and conventional strength training work only your slow twitch muscle fibers. Power training or plyometric "burst-types" of exercises will engage your fast twitch muscle fibers, but not the super-fast. Only one type of exercise is proven to get at these super-fast muscle fibers and stimulate HGH secretion: *high-intensity burst interval cardio*.

A High-Intensity Burst Interval Cardio that Will Knock Your Socks Off

Over the past few years, with the assistance of Phil Campbell, author of [Ready Set Go](#), I have developed a simple exercise protocol that harnesses the benefits of high intensity interval cardio.

My [Peak Fitness](#) program has a high intensity interval cardio routine to be done once or twice a week. During this interval training, you raise your heart rate up to your anaerobic threshold for 20 to 30 seconds, followed by a 90-second recovery phase, and you repeat this a total of eight times.

To perform these intervals properly, you'll want to get very close to, if not exceed, your maximum heart rate by the last interval. Your maximum heart rate is calculated as 220 minus your age. You will need a heart rate monitor to accurately assess your heart rate during the peak interval phases, as it is nearly impossible to accurately measure your heart rate manually when it is above 150.

Here's a summary of what a typical high intensity interval cardio routine might look like using a recumbent bike:

- Warm up for three minutes
- Exercise as hard and as fast as you can for 30 seconds. You should feel like you couldn't possibly go on another few seconds
- Recover for 90 seconds by pedaling at a moderate pace
- Repeat the high-intensity exercise and recovery phase seven more times, for a total of eight repetitions
- Cool down for 3-7 minutes afterwards by radically decreasing your intensity until your body has had a chance to recover and you are breathing normally

Ultimately, you want to exercise vigorously enough to reach your anaerobic threshold, because this is where growth hormone release is triggered. Whatever activity you choose, by the end of your 30-second sprint period you will want to reach the following benchmarks:

- It will be relatively hard to breathe and talk because you're in oxygen debt
- You will start to sweat profusely; typically this occurs in the second or third repetition, unless you have a thyroid issue and normally don't sweat much
- Your body temperature will rise
- Lactic acid increases and you may feel a muscle "burn"

Be mindful of your current fitness level and don't overdo it when you first start out. If you are in poor condition and just starting a fitness program, you may want to begin with just two or three intervals and work your way up to eight. You may need to start with just walking, and when you do your 30-second bursts, your legs should be moving as fast as possible without running, and your arms should be pumping hard and fast.

The beautiful thing about this approach is that, if you are out of shape, you simply won't be able to overexert yourself.

Be sure to avoid all [sugar and fruit juice](#) for at least two hours after your interval workout, otherwise you will obliterate the growth hormone response, which is the major benefit of the exercise. Now that we've revamped your diet and turned you into a fat-burning machine, let's look at the best exercises for specifically strengthening and toning those core muscles that will soon be appearing before your eyes.

The Fine Art of Ab Sculpting



While experts agree that strengthening your core is essential to overall well-being, there are differing schools of thought as to which abdominal muscles are the most important to work. Where the experts DO agree is that core strengthening is best achieved through a combination of different exercises and a varied routine.

You can kiss goodbye the old, outdated model of 100 crunches per day. This targets only a small subset of your total core muscles—and ineffectively, at that. Studies have shown that simple abdominal floor crunches recruit the *least* amount of muscle fibers, when compared to other abdominal exercises.

That's not to say you should never perform a traditional abdominal crunch, but this particular exercise should be done as part of a varied, well thought out core strengthening routine. Core exercises, specifically abdominal exercises, must be done in a variety of ranges of motion, and in different angles and positions, in order to engage the complex mélange of muscles that make up your core. It is also important to understand that what works for one person or body type may not work for another. So the key is to find the combination that works for you, is challenging for you, and produces visible results.

Four Categories of Exercise for a Strong Core

It may be helpful to divide your core routine into different segments: Traditional Exercises, Functional Exercises, Stabilizing Exercises, and Extension Exercises.

1. **Traditional exercises** are those that you are probably most familiar with, such as the standard crunch; a standard crunch with rotation, which incorporates your internal and external obliques; or a standing rotation with a band or light hand weight.
2. **Functional exercises** target most of the muscles within your abdominal wall and are performed by stabilizing your body while in motion. An example would be functional work on a stability ball.
3. **Stabilizing exercises** are best known for stabilizing your spine, drawing the transverse abdominal wall back into your spine and increasing lower back stability. Lying on the floor and pulling your belly back toward your spine, and holding that position while breathing deeply, is an excellent exercise to start with. Once mastered, you can add movement such as a slow bridge or leg extension while maintaining the drawn-in posture.
4. **Extension exercises** are performed to strengthen the erector spinae in your back. Please don't overlook back exercises in your core training program, as your back is a key part of your core strength and stability. A good extension exercise to start with is lying on your stomach with your arms extended above your head. Then, simultaneously raise both arms and legs off the floor. Hold for a count of 5 (or 5 breaths) and slowly lower them back to the floor.

How often should you work your core?

Ideally, you'll want to include a variety of core exercises with EVERY work out. There are so many ways to vary your core workout using different exercises that you will never run short on variety or effectiveness. You can vary your repetitions, your sequence, your contractions, and the position or tools you choose to incorporate into your routine.

What? Push-Ups for Your Abs?

Push-ups are traditionally used to work your chest muscles, but with only slight modifications of your technique, you can work different muscle groups, including your abdominals.

First, it helps to consider the structure of your abdominal wall.

Your transverse abdominis (TVA) is like an inner sheath that holds your internal organs in place. On top of that are your internal and external obliques. Between those and your skin is your six-pack, rectus abdominis. You also have lower pelvic muscles, at the bottom of your abdominal wall, which are responsible for sexual function and urination. Higher up is your diaphragm.

I recommend watching [Darin's demonstration of form](#) for doing a proper push-up.

- Keep your body stiff and straight as a plank
- Keep your elbows at a 45-degree angle from your sides
- Breathe in on the way down
- Lower your body ALL the way down
- Breathe out on the way up

The two most common mistakes people make are going too fast, and using only an incomplete range of motion, i.e., not touching the floor. There are two more key points to remember when doing push-ups:

1. **While in plank position, pull in your belly button.** Your belly button is attached to your transverse abdominis. So by pulling it in, you begin to contract that deep inner TVA muscle.
2. **While still in plank, perform a Kegel squeeze.** More women than men might be familiar with this term. A Kegel squeeze is performed by drawing your lower pelvic muscles up and holding them there, high and tight. For men who aren't familiar with the term "Kegel squeeze," it's similar to trying to stop urination in the middle of the flow. This squeeze allows you to feel and focus on your abdominal muscles.

During the push-up, if you want to work your six-pack rectus abdominis muscle, drive your chin down toward your toes while pulling your belly button in.

For further details and advanced techniques, refer to Darin Steen's [push-ups](#) article.

Extreme Push-Ups: Add Plyometrics

The following are three techniques you can use to intensify your push-up routine:



1. **Plyometric push-up:** Once your sternum touches the floor, hold your position and breathe for about three seconds, then perform an *explosive* push upward.
2. **The three-minute push-up challenge:** This is extremely challenging, but delivers fantastic results. Quite simply, you just do as many push-ups as you can in three minutes—while maintaining GOOD form and technique.

To be successful at this, you'll need a strategy—because if you just go all-out, you won't likely last for three minutes. So, pace yourself at about 80 percent of your total ability, and when you can't go any further, rest for 10 to 20 seconds, stretch, and then resume.

3. **The handstand push-up:** This technique is super-advanced and works your shoulders, triceps and core. Facing a wall, place your hands at a 45-degree angle about one to two hand-lengths from the wall. Kick your legs up. You can use the wall to stabilize yourself as you perform the push-up. Breathe in as you lower yourself to the floor, and breathe out as you push yourself up.

It may be helpful to watch Darin demonstrate these advanced [plyometric push-up](#) techniques, to really see the proper form before you attempt them on your own.

Final Thoughts

In summary, the key to lean sculpted abdominals and a strong core is a combination of lowering your body fat through dietary changes and high-intensity burst plus incorporating a variety of exercises that target different core muscle groups. These lifestyle changes will also result in greater overall health and more pep in your step, as well as reducing your risk for health problems like diabetes, heart disease, cancer, arthritis, and the rest.

So keep your body moving, and enjoy the abundant health and happiness that results!

[J Strength Cond Res. September 2011](#)