

# How To Lose 1 Jean Size Every 7 Days... Guaranteed!

## ABstracts

My top 20 scientific abstracts for creating sensational abs



Model: David Kennedy Photo: Dennis Lane

You and I are quite likely different in many ways, but there's one thing we definitely have in common—we both want to achieve the best abs for which our genetics will allow. (Of course, you wouldn't be reading this special issue if you didn't care about building great abs—you'd be out doing whatever it is "regular" people do.)

Make no mistake, as people who are dedicated to being better than "Joe Six-Pack," we're constantly on the lookout for information which will help us create a midsection bearing a *true* six-pack—the cornerstone of a well-built body.

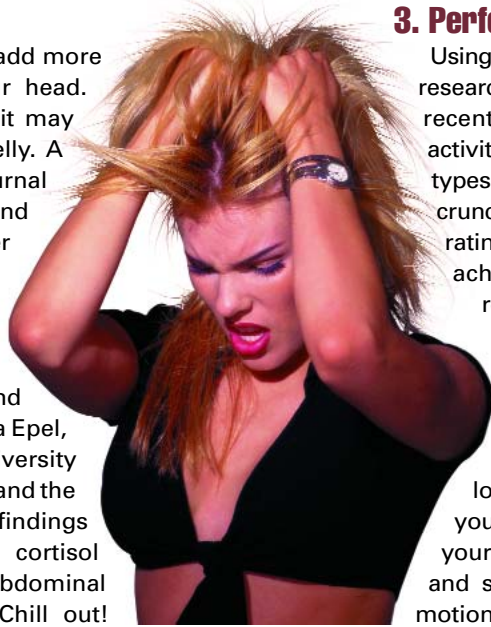
The good news is the science of fat loss and muscular development is moving forward at a meteoric pace—exciting, new discoveries are being made literally every day. The problem is, in today's busy world, most people haven't the time to keep up with everything these scientists have been uncovering.

Indeed, sifting through and making sense of the latest scientific research can be a full-time job; in fact, for me, it is. In putting together this special ab issue, I pored over hundreds of scientific abstracts and narrowed them down to my top 20 "ABstracts," if you will, for achieving amazing abs. I can't begin to tell you how much these 20 pearls of ab wisdom have helped me in achieving my own best abs, which you might have seen on the cover of the June issue of *MM*. And I am certain the following research findings will greatly advance your knowledge about how to build *your* very best abs, too.

Of course, knowledge isn't the only ingredient needed to be successful at this endeavor—you also need to have the ability to *apply* this knowledge. Without that skill, it doesn't matter how much you know (witness some of the world's leading experts in the science of physique development—who have some of the worst physiques on the planet).

## 1. Reduce stress

Being “stressed out” may add more than just gray hairs to your head. According to new research, it may also add body fat to your belly. A report published in the journal *Psychosomatic Medicine* found that people who have higher levels of the “stress” hormone cortisol tend to have more abdominal fat. “Abdominal fat distribution is related to greater psychological stress and cortisol reactivity,” says Elissa Epel, Ph.D., a researcher at the University of California at San Francisco and the study’s lead author. “Our findings suggest that stress-induced cortisol secretion may contribute to abdominal fat.” Take-home message? Chill out! Your abs will thank you.



## 3. Perform the bicycle maneuver

Using an electromyograph (EMG) machine, researchers at San Diego State University recently measured abdominal muscle activity of subjects asked to perform 13 types of ab exercises. The traditional crunch was used as the benchmark for the ratings. Surprisingly, the top-rated stomach strengthener, according to the researchers, was the bicycle maneuver, which created almost 250 percent more muscle activity in the rectus abdominus muscles—the six-pack set—than a crunch did. To do it, lie flat on the floor with your lower back pressed to the ground. Put your hands beside your head. Bring your knees up to about a 45-degree angle and slowly go through a bicycle pedal motion. Touch your left elbow to your right knee, then your right elbow to your left knee.

## 2. Get nine hours of sleep per night

Nine hours of sleep may sound like a lot, especially to those of us who are used to getting by with no more than seven. However, in a study published in the *Tufts University Health & Nutrition Letter*, researchers from the school’s department of nutrition science discovered that people who slept an average of seven hours a night had significantly higher levels of cortisol in the afternoon than when they slept for nine hours a night. And as we’ve already seen, elevated cortisol levels may lead to unwanted body fat accumulation around the belly. So to help keep cortisol levels in check, try to get at least nine hours of sleep per night.

## 4. Supplement with BCAAs

Recent studies have shown that BCAAs (branched-chain amino acids) may be useful in helping you lose that unsightly belly fat. In one of these studies, wrestlers wanting to lose fat used BCAAs along with a relatively low-calorie nutrition plan. According to researchers, the wrestlers supplementing with BCAAs lost 34 percent more abdominal fat compared to those who dieted but did not use the BCAAs. The authors concluded that the combination of moderate energy restriction and BCAA supplementation may stimulate significant and preferential losses of abdominal fat. You’ll find BCAAs in many high-quality protein supplements, such as whey protein, which contains about 25 percent BCAAs.



## 5. Cut out alcohol and cigarettes

A number of studies have shown smoking and alcohol use, even in a social context, to be associated with increased abdominal fat accumulation. For instance, one Swedish study that compared recreational drinkers with nondrinkers found that the recreational drinkers had two to three times the amount of abdominal fat. Similarly, researchers at the University of Manitoba, Canada, have found that cigarette smoking increases abdominal fat deposits.



## 6. Don't diet

Scientists have recently discovered that yo-yo dieting—repeatedly taking off weight only to put it back on—may actually *promote* weight gain in the long run. Worse yet, according to researchers at the University of Pennsylvania School of Medicine, this increasingly common practice of yo-yo dieting may also promote abdominal fat accumulation. In fact, a recent collaborative research project involving scientists from Harvard, Yale, Vassar and the University of Pennsylvania has produced evidence of a “diet sensitive” phenomenon in which each bout of weight loss and weight gain actually mobilizes the body's defenses against losing fat. It seems persistent weight fluctuations lead to significantly lower metabolic rates—and therefore a slower burning of fat.

## 7. Do cardio in the morning

Conducting your aerobic exercise in a fasted state (before eating) may be an even more potent fat-fighting strategy than originally thought. According to new research from the University of Texas, fat burning is markedly suppressed when carbohydrates are ingested up to six hours before exercise. This suppression of fat burning, say the researchers, is related

to the “insulin effect” of the pre-exercise carb meal. Studies show your body has trouble burning fat when your insulin levels are elevated. (Carbs cause insulin levels to go up.) Worse yet, the effects of this carb-caused insulin spike appear to persist long after insulin levels have returned to the fasting range. “This is supported by the finding that increases in plasma glycerol concentration (a marker of fat burning) during exercise were blunted for nearly 12 hours after ingestion of carbohydrates,” says the study's lead researcher Edward F. Coyle, Ph.D.

In other words, the increase in blood glycerol concentration (and therefore the breakdown of fat stores) during aerobic exercise seems to be positively related to the length of time fasting. Therefore, doing your aerobics first thing in the morning, after, say, a nine-hour fast, should produce very favorable results.



## 8. Contract your hamstrings during ab work

Studies from Russian exercise scientist Prof. Vladimir Janda suggest that by contracting your hamstrings as you perform ab work, you're minimizing the involvement of your hip flexors and thereby increasing the contraction of your abs. The hamstrings are antagonists to the hip flexors. When the hamstrings contract, the hip flexors must relax, making your abs work harder. The correct way to contract the hamstrings as you perform crunches, according to Janda, is to keep your knees slightly bent and simply push down with the balls of your feet as you crunch, keeping your toes pointed.

### 9. Supplement with CLA

A study published this year in the *International Journal of Obesity* concludes that CLA may go a long way in helping you find your abs. In all, 25 men participated in the double-blind, placebo-controlled trial. Fourteen received 4.2 grams of CLA per day, while the others received a placebo. After four weeks, there was a significant decrease of abdominal diameter among the CLA group. Specifically, those taking CLA lost an average of one full inch from their waistlines. None of the study participants changed their eating or exercise habits during the trial period.



### 10. Stick to the treadmill

Of all the latest, greatest newfangled cardio contraptions jamming today's typical gym, it seems the time-honored treadmill is still best for burning off that beer belly. Recently Niall Moyna, Ph.D., and colleagues from the Center for Sport Science and Health in Dublin, Ireland, pit the popular cardio machines against one another in a battle for fat-burning supremacy. Subjects performed three exercise tests at selected intensities corresponding to ratings of perceived exertion (RPE): fairly light, somewhat hard and hard. Between the stairstepper, stationary cycle, cross-country ski simulator and treadmill, energy expenditure (calories burned) at each RPE was highest on the treadmill for all subjects. Energy expenditure at all RPEs was lowest on the stationary bike. "Subjects can expend more calories at the same RPE during treadmill exercise than with other devices," says Dr. Moyna. And more calories burned equals *more fat lost*.

### 11. Practice strategic breath holding

According to research from Mel Siff, an exercise scientist from South Africa, when performing curl-up

exercises like the crunch, you can increase the contraction of your abs by simply inhaling at the start of the exercise and exhaling at the completion of the movement. Exhaling during the contraction phase reduces the tension on the muscles of the lower-abdominal region.

### 12. Pick up the pace

In a study presented at this year's American College of Sports Medicine Annual Meeting, researchers from East Tennessee State University found that fat burning is significantly greater when exercise intensity is *high*. The researchers compared high-intensity interval training performed at 95 percent of maximum heart rate to the usual "slow-go" style of cardio so often prescribed for fat burning. "The interval training group showed an acute 5.4 percent increase in resting metabolic rate 24 hours post exercise," says study author J. King, Ph.D. In other words, high-intensity intermittent exercise strips away the fat hiding your dear abbies for a full day following the workout—an effect not found with slow-go cardio.

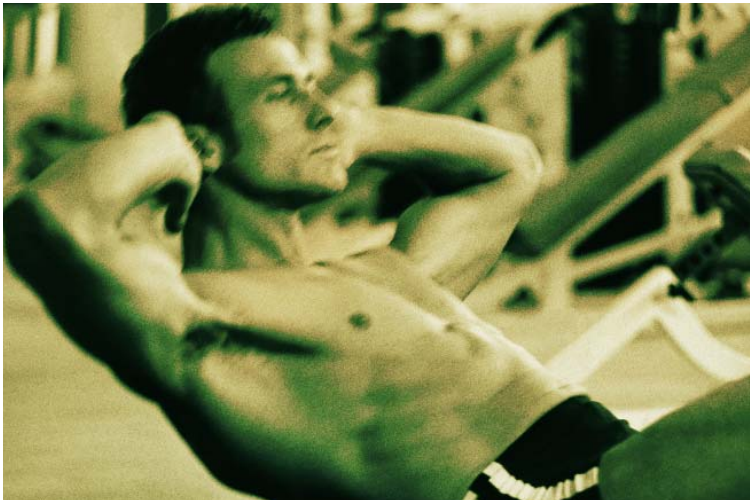


### 13. Don't eat with friends

Having trouble finding your abs? You may want to pass the next time your buddies invite you to lunch. According to researchers from Vanderbilt University, meals eaten with other people were significantly larger than meals eaten alone. Percentage of calories from fat were also greater in social-context meals compared to meals eaten alone, report the researchers in April's edition of the scientific journal *Appetite*.

### 14. Forget about miracle ab gadgets

I'm sure you've seen those "hypish" infomercials for all different kinds of ab-training devices. Some work so well you only have to do them three minutes a day, and you'll miraculously develop a washboard stomach! *Please*. The truth is, most of these products shape your midsection no better than old-fashioned crunches. And some, according to a study published last September by the American Council on Exercise, typically burn fewer calories than a gentle walk. Save your money.



### 15. Eat more protein

Everyone who works out understands, or *should* understand, the importance of a diet high in protein for building muscle. What isn't so obvious, however, is the importance of a high-protein diet for burning fat ... particularly that of the abdominal variety. You see, one of the most effective dietary weapons in our fat-fighting arsenal is something called the "thermic" response to food. What that means is when we eat, our bodies burn calories to digest the food. And more calories burned can mean more fat lost. Recently researchers from Arizona State University investi-

gated the thermic response of a standard high-carbohydrate diet (60 percent carbs, 15 percent protein and 25 percent fat) and a higher-protein diet (40 percent protein, 30 percent carbs and 30 percent fat). The thermic effect was found to be significantly greater—to the tune of an extra 58 extra calories burned after each meal—among those on the higher-protein diet.

### 16. Choose "appropriate" portion sizes

A new USDA study shows that because of increased portion sizes, the average American's total daily calorie intake has risen from 1,854 to 2,002 over the last 20 years. That increase—148 calories per day—theoretically works out to an extra 15 pounds every year. "Our focus has



been distorted by so much emphasis on cutting fat intake at the expense of keeping portion sizes under control," says Melanie Polk of the American Institute for Cancer Research. "The fact is, we just eat too much." She and other experts encourage people to employ a common-sense approach, such as using the palm of your hand or your clenched fist for gauging the portion sizes of food.

### 17. Train with weights consistently

Everyone knows exercise burns up calories while you're doing it, but University of Missouri researchers say your metabolism is revved up for as long as nine hours after a single weight-training workout. Their test subjects burned 600 calories in one hour during intense workouts, but they also burned 120 more calories during the next nine hours than they would have normally had they not exercised.

### 18. Drink plenty of water

A new study published in the journal *Medicine and Science in Sports and Exercise* has shown that dehydration can cause a significant drop in an individual's resting metabolic rate and result in the body using a higher percentage of energy from carbohydrates as opposed to fat. What's more, drinking too little H<sub>2</sub>O can upset your sodium balance drastically, and your body will actually hold water underneath the skin,

especially around the stomach, making you look like some sort of human puffer fish. (Subcutaneous water retention looks a lot like fat!) To make sure you're maintaining proper hydration, you should be drinking on the order of eight to ten 12-ounce glasses of water a day.


## 19. Power breathe

*MM* training guru Pavel Tsatsouline, M.S., reports of research from Russian scientist Prof. Vladimir Zatsiorsky, who cites a double-blind study that showed power breathing to be one of the best ab exercises around. To do it, take a normal breath and flex your abs, says Tsatsouline. At the same time, tense your glutes and "tuck your tail under." Next, expel the air forcefully in three to five seconds while keeping your abs and glutes tight. Zatsiorsky recommends 10 to 15 contractions per set, three to four sets spread throughout the day. To learn more about proper Power Breathing technique, check out Pavel's "Question of Strength" column in this issue.

## 20. Eat six times a day

This is old news to many of you, but it's such valuable information, it bears repeating. In a new study of 62 elite-level athletes at Georgia State University, Dan Benardot, Ph.D., discovered that the athletes who ate infrequently (three squares a day) were almost always the ones with the higher percentages of body fat. But those who fed their body every few hours tended to be leaner. "The idea that 'three square meals is best,' I have come to believe, is downright wrong," says Dr. Benardot. He says the data is decisive: People wanting to get lean should focus on eating smaller, more frequent meals—ideally six relatively low-fat, protein- and carbohydrate-balanced meals—throughout the day.

## Conclusion

As I said, if you're serious about building your very best abs, you have to *apply* this information. Remember, *knowing what to do* and *doing what you know* are two entirely different things. ||||