

DISEASE PREVENTION

A HIGHER
STANDARD
OF FITNESS
JOURNALISM
Fitness

TRAINING
TIPS
FROM TOP
FITNESS
EXPERTS

THE NATURAL APPROACH TO
HEALTH & FITNESS

On Fitness

FOR MEN & WOMEN

YOUR PERSONAL
TRAINING PARTNER

SCIENCE OF AB TRAINING

HOW TO LOSE THE BELLY FAT,
BUILD MUSCLE FAST AND LOOK GREAT

CAN WE BE FIT AND FAT?

WHY THE QUESTION IS MORE
COMPLICATED THAN IT SEEMS

EXERCISE AS MEDICINE

CAN IT PREVENT AND TREAT
CHRONIC DISEASE?

TRUTHFUL
REVIEWS
OF POPULAR
HEALTH FOODS

FITNESS, HEALTH,
SCIENCE

WELL WORTH
THE HEALTH
INVESTMENT

JANUARY/FEBRUARY 2010
SUBSCRIBE ONLINE AT
www.onfitnessmag.com

\$6.99US



0 74470 02375 3 02>

QUICK TIP: TO AID YOUR WEIGHT LOSS PROGRAM, PRACTICE PORTION CONTROL. THIS WILL AUTOMATICALLY REDUCE CALORIES.

THE SCIENCE AND EVOLUTION OF

ABDOMINAL MUSCLE TRAINING

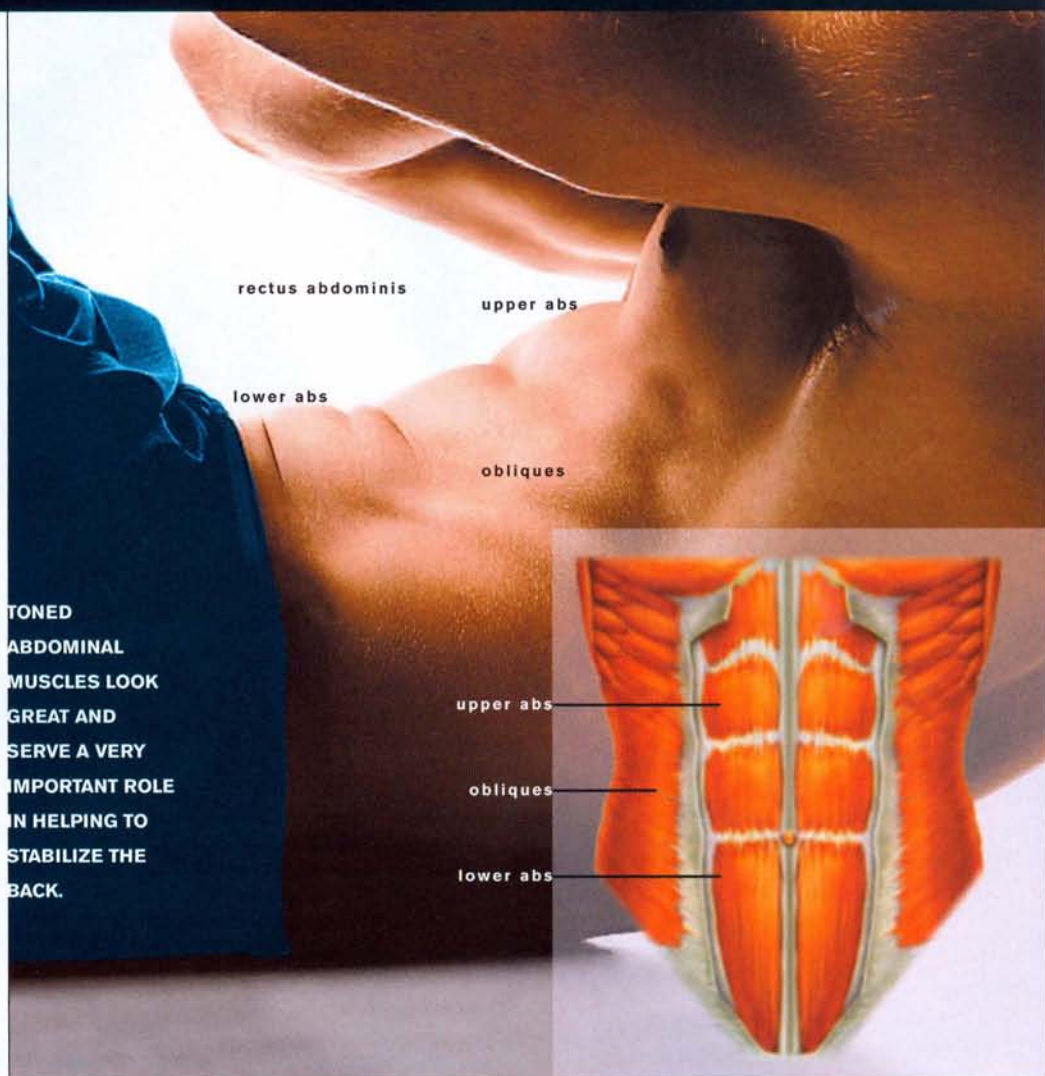
BY PHIL CAMPBELL

Without question, I know that this article will raise the eyebrows of most fitness pros. This method will initially sound totally contradictory to what trainers have been taught for years.

However, let me challenge you to do two things: Read the entire article with an open mind, and simply test drive this method of working abs for yourself. It only takes five minutes. Fair enough?

I'm old, but not old-school. In the 1990s, when I wrote my book to motivate adults of all ages, not just athletes, to use fast-fiber, anaerobic sprint training that targets exercise-induced growth hormone, *long slow cardio was king* and had been king for years.

I was questioned about my thinking and training methods for years, but was totally vindicated August 8, 2007, when the American Heart Association changed the cardio guidelines by dropping long slow cardio from the guidelines (because the research showed this does not get results), and adding two new guidelines: 30



**TONED
ABDOMINAL
MUSCLES LOOK
GREAT AND
SERVE A VERY
IMPORTANT ROLE
IN HELPING TO
STABILIZE THE
BACK.**

minutes of moderate intensity cardio five days a week, or vigorous intensity cardio for 20 minutes three days a week.

The new high intensity cardio guideline matched my "sprint 8 cardio" recommendation in my book written a decade earlier, specifically, 20 minutes of high intensity cardio training three days a week — composed of eight **anaerobic**, fast-fiber-recruiting, 30-second sprint bursts followed by 90 seconds of active recovery. I'm no stranger to controversy, but I use mainstream science to support my training methods.

When it comes to training abs, I have seen the truth distorted numerous times; most of the time to sell some new ab machine. So for the next few minutes, please take what you know about training abs, and realize that there is a long history behind the evolution of thinking about training abs, which, as you know, are an important part of the overall core of the body.

THE EVOLUTION OF TRAINING ABS

Over 50 years ago, it was erroneously taught that those who wanted to achieve spot reduction around the waistline should do high rep training because high reps made an area of the body smaller, and low reps made the area larger. We laugh at this thinking today, yet

we still teach high reps for ab training.

Today, we know that the body adapts to the micro-fiber tears in muscle worked during training by healing and remodeling during sleep and recovery over a 48 hour period. Today, we also know that the body doesn't really care about the number of reps performed during an exercise.

The body, to a degree, doesn't

care if an exercise was done on a machine, with free weights or with bands. Muscle adapts not to the number of reps performed during an exercise or because an exercise was done on-or-off a machine.

Muscle adaptation is a 48 hour healing process that begins when micro-fiber tears are created during training, and is completed when the body heals the micro-fiber tears while we sleep.

Number of reps, amount of resistance and the velocity of exercise movement are tools of the trade. But it's important to understand that the body heals the micro-fiber tears caused during training, and this is what builds and strengthens muscle.

This is why we train muscle groups in the body, and this is why we train the heart muscle — to create micro-fiber tears to start the adaptation process so

these muscles will adapt by becoming bigger and stronger.

With this in mind, let me ask a question: Why are most doing 50 or 100 reps for abs? Could this be a carryover from some very old thinking that high reps make the waistline smaller?

Another question: What would you get out of a 100-rep bench press? Not much; tired, some sore joints perhaps. Truth is that you could work the chest

muscles with 100 reps on bench, but think of the wear on the shoulder joints to train this way over time.

You can train your heart muscle with moderate-intensity cardio, but this method takes 30 minutes five days a week. Or, you can deploy a high intensity interval training strategy and accomplish the new AHA cardio guidelines for your clients (and yourself) in

just 20 minutes three days a week, without putting extra wear-and-tear on the joints.

The same thinking needs to be applied when training abs. Why wear out the spine with high rep training and waste all that extra time, when there is a much better way to work the abs? You'll get better results for your clients and save tons of time with this training method.

CONTINUED ON PAGE 44





TRAIN RIGHT

SHORT TRAINING TIPS

ADDITIONAL WAYS TO ADD INTENSITY TO CARDIO ROUTINES include adding risers to your step platform, holding dumbbells during step routines, plus jumping drills, fast jump-roping, staircase dashes and outdoor hill dashes.

QUICK TIP: HOLDING THE RAILS ON A TREADMILL REDUCES INTENSITY, SO YOU'RE NOT BURNING AS MANY CALORIES AS THE DISPLAY INDICATES. YOUR

UNDERSTAND THE PHYSIOLOGY AND EFFICIENCY OF YOUR ABS

Think about how ab muscles are positioned on the human body. Ab muscles are used almost constantly during waking hours, and ab muscles are in rows for an important reason. The separate rows make this muscle group one of the most efficient muscle groups in the entire body.

Visualize how the different rows of ab muscles work in slow motion when doing a sit-up. When the top row engages and contracts to move the upper body upward, other rows rest. As the upper body continues to rise, the second row engages and the top row begins to rest with the other rows.

The third row then engages, and the top two rows begin to rest. The body's rows of ab muscles are a wonderful display of efficiency. By rows, two muscles side-by-side, ab muscles are able to contract and relax to propel movement consistently for a lifetime.

We may wear out the spine, but the ab muscles just keep on going. Working together as a unit, ab muscles are so efficient that they seem to endure forever.

Important point: While advertisements for ab machines show thermogenic measurements of how all of the ab muscles work comprehensively

on a new XYZ machine, this is not the best way to train these muscles.

It's not the best way because trying to work all of the abs at the same time means that you are tapping into an efficient system made for endurance, and this means that you'll have to do 100 reps for set-after-set to create micro-fiber tears to start the adaptation process. This also means stressing the

spine for rep-after-rep to work the muscle.

There's a better way. Take the efficiency out of the rows of ab muscles, and work upper abs separately like you would other upper body groups with a similar number of reps for upper body. And once the upper abs are exhausted and can't synergistically assist the lower abs when raising legs, work lower abs with leg raises.

I know this sounds overly simple, but I challenge you to try this with an open mind before you pass judgment.

TRAINING UPPER ABS FIRST

Here is the workout: upper abs 4 sets 20 reps; lower abs 2 sets 20 reps. If this works, how much time do you think it will take? Not long. And this workout is so fast that you could perhaps work this muscle

HOW TO LOSE THE BELLY FAT

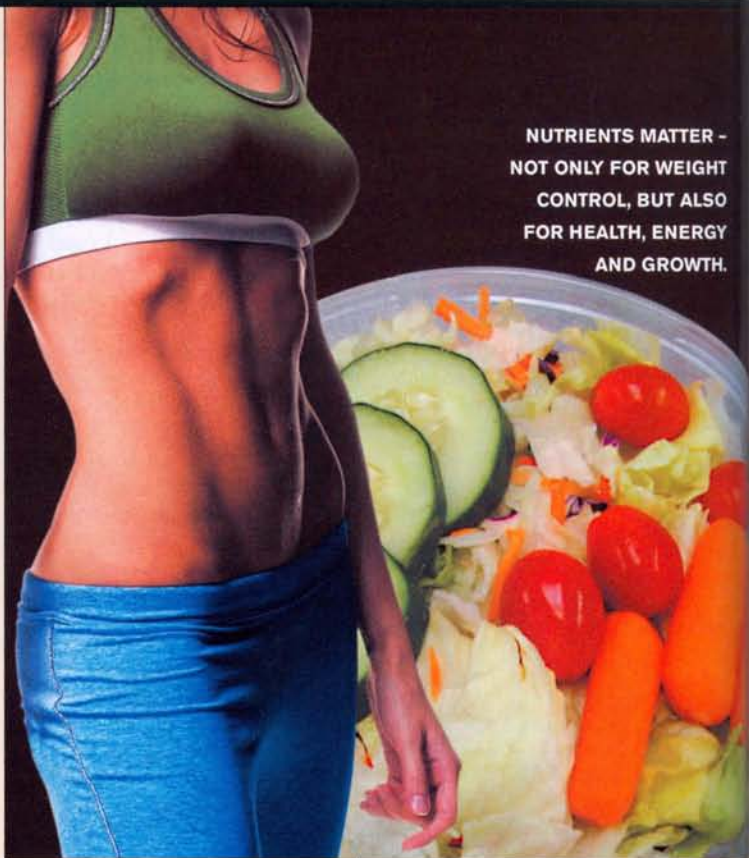
Are you counting your calories again? Splashed across the national media recently was the latest finding from the *New England Journal of Medicine* purporting that calories are the major issue in weight loss.

The public and much of the media have apparently taken this to mean that losing calories overshadows everything else. It was even stated, "It's actually not what you eat – it's how much." Unfortunately even some fitness and health print is following suit and advising people to put all their effort into a mighty push to reduce calories.

This latest finding (*New England Journal of Medicine*; Feb. 2009), which concludes, "Reduced-calorie diets result in clinically meaningful weight loss regardless of which macronutrients they emphasize," has the low-carb camp, including the Atkins followers, in a dither.

The low-carb group is claiming that the study was biased. However, greatly ignored in the debate is the other vital issue that cannot be separated from weight loss – the issue of health. Calorie content is just as important as calorie count. In fact, it's even more important.

You cannot separate the two – calorie count and calorie content – and expect to come to any beneficial support for the



NUTRIENTS MATTER – NOT ONLY FOR WEIGHT CONTROL, BUT ALSO FOR HEALTH, ENERGY AND GROWTH.

MYTH TAKES

CRUNCHES ARE THE BEST WAY TO FIRM THE STOMACH: ACTUALLY, THEY ARE ONLY HALF THE EQUATION. THE OTHER HALF IS WEIGHT LOSS TO LOSE EXCESS ABDOMINAL FAT. CRUNCHES ARE EXCELLENT FOR STRENGTHENING AND FIRING THE MUSCLES IN THIS AREA, BUT EVEN FIENDISH AMOUNTS OF THEM WON'T DO AWAY WITH THE JELLY BELLY THAT IS THE RESULT OF TOO MUCH BODY FAT. YOU COULD ACTUALLY END UP WITH A BIGGER BELLY IF YOU DON'T REDUCE EXCESS BODY WEIGHT WHILE ALSO WORKING ON FIRING THE ABS.

body. To maintain the best diet for health, fitness and longevity, it's vital to monitor not only how much you eat, but also what you eat.

QUALITY MATTERS

The bottom line that many people are taking away from the new low calorie push is that if

you focus on calories, you will lose weight and everything will be dandy. Not so fast – what you eat does matter.

Let's expand the argument to an extreme to make a point. A person who eats only 1,500 calories per day of just white bread will be much healthier than someone who eats 2,000

SMART TRAINING

FAST LANE

ARMS SHOULD SWING NATURALLY.



group made for endurance 3-4 times a week.

The best way to experiment with an isolated upper abs workout is to find an abs machine where you can do only an upper-body quarter crunch. A machine that uses upper and lower abs in the same exercise will not work, and defeats the purpose.

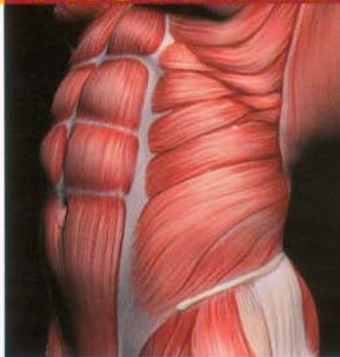
You can also lie on your back on the floor with feet elevated

on a bench, a weighted plate on your upper chest.

Place a lot of weight on the machine. If the machine holds the standard 190 pounds, you may need to place as much as 120 to 130 pounds on the unit.

It should be so heavy that 10 reps will be difficult (yet doable), but you have to do 20 reps, which may be 10 reps more than what you think you can do initially.

CONTINUED ON PAGE 46



THIS CORE EXERCISE LOOKS EASY BUT WILL

Expand your rib cage fully at the starting point of each rep. Don't forget this step. Fully expand your ribcage. Now do a heavy quarter crunch only. If you happen to crunch for more than a quarter crunch during each rep, you will be tapping into that efficient system of ab rows discussed earlier and giving the upper abs time to rest and recover.

The goal is to only work upper abs by treating them like upper body for 20 nonstop reps, and 20 reps is still a lot of reps for most upper body exercises.

Recover for one minute and repeat for 4 x 20 reps. After 4 sets (should be less for your clients), if the weight was heavy enough where 10 reps was difficult, but you did 20 reps of quarter crunches with ribcage expanded at the beginning of each rep, you should feel like you've just been through a 30-minute abs class.

LOWER ABS

Now that upper abs have micro-fiber tears created for a superior adaptation process and are totally exhausted (in a short amount of time, 4 x 20 reps), your upper abs can't synergistically kick in to assist lower abs with any type of leg raise exercise that you wish to select.

Frequently, trying to work

lower abs within this very efficient system that's designed for endurance before the upper abs are exhausted, typically means that the lower abs are so strong that they don't really get worked during the exercise, because the hip flexors exhaust before the lower abs begin to work hard enough to create micro-fiber tears.

However, once the upper abs are exhausted first, now, when you lift your legs during your

favorite leg raise exercise, you should feel little or no assistance from the upper abs, and you should feel your lower abs working hard on the first few reps and actually exhaust before your hip flexors do.

CONCLUSION

If you try to work all of your ab muscles in one exercise, you will be tapping into one of the most efficient systems in the body that's designed for

endurance, so it will take tons of reps and time, and you may be overworking the spine with all of the repetitions.

If you take the efficiency out of the rows of ab muscles by working upper abs first, you will create micro-fiber tears for a superior adaptation process in the upper and lower abs in a short amount of time. So short, that you can afford to work your abs 3-4 times a week. 🙌