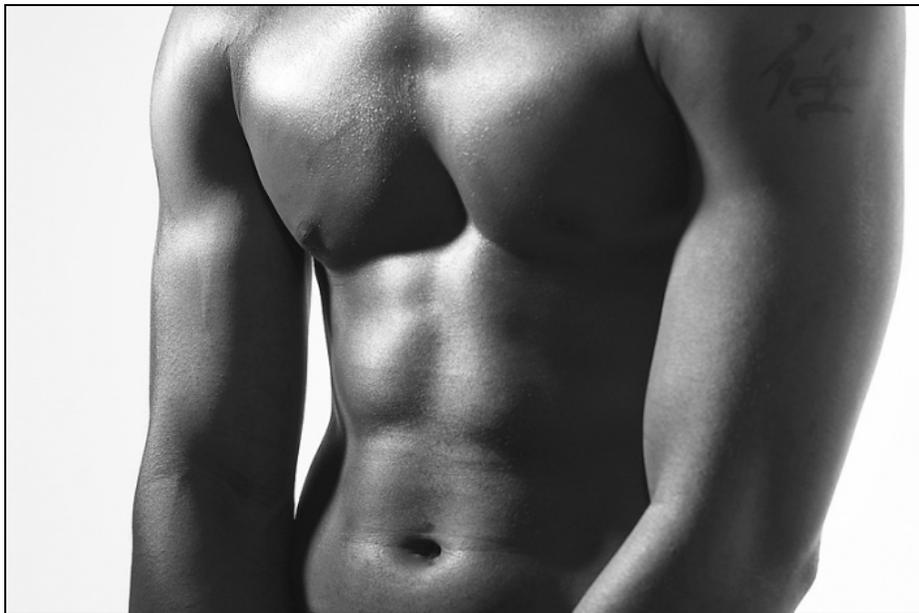


Fitness and Performance Report

HOW TO MAXIMIZE FAT LOSS: The Ultimate Guide for Busy People



Fitness and Performance Association, 2009

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INTRODUCTION

Maintaining a healthy bodyweight and body composition (the ratio of lean tissue compared to body fat) is very important to one's overall health, appearance, and performance. We all want to look and feel fit, lean, and attractive. For these reasons and many others, reducing body fat is a common goal for both the general fitness enthusiast and the serious athlete. In fact, there appears to be a national obsession with "slimness" and getting leaner. With such a strong interest in fat loss, it's no wonder it has become such a *huge* industry in North America, with new fad diets, weight loss plans, abdominal toning products, and fat burning supplements arriving on the market every day.

Unfortunately, despite all of the interest, attention, investment, and energy directed at this subject, obesity is still on the rise. In Canada it is estimated that one in four people are obese. In fact, if you are a lean and fit individual in the U.S. you are in a minority!



Because weight loss is such big business, some marketers are willing to tell you anything to sell you their products or services. This includes exaggerated research results, unrealistic promises, pills marketed as magic bullets, and results promised without effort on your part. There is so much information out there on this subject (much of it conflicting), that it's hard to know where to start. On top of that, in today's fast paced society many people find it very difficult to make time to eat right and to follow an exercise program.

At present, you might be pursuing "**weight loss**" rather than focusing on "**fat loss**", but they are not necessarily the same thing. Much of the weight lost on highly restrictive starvation type diets or high volume cardiovascular exercise programs is a result of losing lean muscle tissue and body water. But because your muscles are what drive your metabolism your goal should be to maintain or gain lean tissue while you burn body fat. Therefore, it is useful to consider how you look in the mirror, how your clothes fit, your body fat percentage, and your waist and hip circumference, rather than relying on your weight scale alone.

You Can Get REAL Results Without Spending Countless Hours In The Gym!

The purpose of this report is to outline some basic, effective and time-efficient principles for attaining healthy, permanent "fat loss" and a transformation of your physical appearance. In this report, **six top fitness industry experts** have shared their knowledge and experience to present the most productive fat loss strategies for the busy person. Much of this information you may not hear from the mainstream "weight loss" marketing hype. In the following chapters you will find effective methods of getting leaner that take into account your busy schedule.

What is the Fitness and Performance Association?

The FPA is a group of fitness professionals, trainers, strength and conditioning specialists, nutritionists, and other industry experts, dedicated to growing and developing as the elite providers of fitness and performance training and resources. Our mission is to promote healthy living and high performance through education and the development of innovative, cutting edge programs and training strategies. We strive to evolve as a team in order to stay on the forefront of our field so that we can consistently provide high value service to our customers.

CHAPTER 1

Making the Change of a Lifetime

Craig Hirota

"A Journey of a thousand miles starts with a single step."

Lao Tzu

"A body at rest remains at rest unless acted upon by an external force."

Newton's First Law of Motion

If you're reading this, you've just experienced success! The popular "transtheoretical model of behavioral change"⁽¹⁾ describes six stages of progress in the process of change. Simply reading this report indicates you have progressed to the "Preparation" stage, the third of six stages in the model.

The "**Preparation**" stage implies that you have already identified what you want to change and have begun to take small actions (like downloading this ebook) to accomplish this change. My goal during this chapter is to give you concrete strategies that will propel you to the "**Action**" stage - the stage where you can utilize the following chapters in this ebook to help you reach your health and fitness goals.

My Story

The picture on the right is from the awards ceremony for the 1989 ADFPA California State Powerlifting Championships in the 182-198 pound weight class. I'm the one on the far left. I finished in 5th place. I was 22 years old. I was a senior at UCLA and had been lifting weights for the better part of six years and powerlifting for three. I had fantastic training partners and trained at the famous Gold's Gym in Venice, California. Looking back, I couldn't have created a better environment for unimpeded progress towards my health and fitness goals.



Fast forward to 2007 and I am 299 pounds, morbidly obese and haven't been physically active save for golf from a golf cart for over five years.

What happened?

The simple but incorrect answer is "life happened". The correct answer is I made conscious decisions to place my health and fitness in a position of low priority.

I moved to another country. I helped start a business. I got married. I got divorced. I got busy. Yada, yada, yada...**excuses and rationalizations**. In reality, *I simply failed to plan a health and fitness strategy* around the ever-increasing demands that **every** adult faces.

Instead, I fooled myself by believing I was too busy to exercise and I joked with people that commented on my ever-increasing girth. Now, I keep this picture not only because it shows where I came from but also because it shows how self-destructive my mindset had become. I actually thought it was funny to be unhealthy!

This is me one year later. I lost over 60 pounds of body fat, resumed powerlifting competition and placed first in the Raw Division of the 2008 USAPL Ohio State Championships, 243-275 pound weight class. I changed careers and re-started my Personal Training business. Now, I take immense satisfaction from helping my clients make changes to their health.



How did I regain control of my health and ultimately, my life?

The Preparation Stage

The preparation stage is characterized by experimentation and information gathering. When people fail to progress past the preparation stage, it is almost always because they become over-whelmed with experimentation and information gathering. Success in moving past the preparation stage relies on a simple three-step process.

Define Your Needs

Defining your needs is critical to your eventual success. It is imperative that you write down everything that comes to mind. Needs can be specific or they can be abstract.

Examples of needs are:

Increase energy	Fit into wedding dress
Lose weight	Be able to play with grandchildren
Build muscle	Look good for reunion
Lower blood pressure	Reduce health risks
Reduce inches	Reduce tension or stress

When writing down your needs, more is better. Re-examine your list in a few days and see if there is anything you can add. The more needs you identify; the easier it will be later to create a bulletproof plan. Sometimes, you'll get stuck in this process because there will be one need that over-shadows all others. If that is the case, take that need and look at everything that would change if that need were accomplished. Everything that follows from attainment of that need should also go on your list.

In my case, my primary need was to lose weight. At first, it was all I could contemplate. It was only after I was able to break it down into things like, play basketball, stop shopping at big and tall stores, being able to walk without a backache, and not worrying about breaking furniture, that I was able to formulate a plan that wouldn't be derailed by a single obstacle.

If you have only a few needs, your progress can be stopped by a few obstacles. Referring back to Newton's Law of Motion at the top of this chapter, consider your listed needs as the momentum behind your change. The more needs you can list, the more momentum your change process will have and the more difficult it will be for obstacles to knock you off course.

Write Down Specific Goals

Here's where we drill down into your list of needs and come up with specific goals tied to each of the needs. This step is critical because it defines the course of action you will take. Goals are like way points on a map. Without them, you're stuck with a vague idea of where you'd like to go but no idea of how to get there.

Some examples of specific goals are:

Lose 20 pounds	Lower resting heart rate 10 bpm
Lose 2 dress sizes	Lower blood pressure to 120/80
Fit into an old pair of "skinny" pants	Run 5k without stopping
Increase the size of your arms 1"	Reduce waist by 2"
Squat 500 pounds	Reduce body fat by 5%

Now you've got specific goals written down. As they say, "if it's written, it's real." Seeing your specific goals on paper makes you accountable to yourself. My specific goals included, competing in a powerlifting contest, losing 30 pounds, reducing my blood pressure, and reducing my waist by 3 inches.

Set Your Time Frame

The last step in this process is to set a time frame. This is pretty self-explanatory; the key is not to get caught up in spending a lot of time trying to determine the perfect "realistic" time frame. The time frame you set is the time frame in which YOU want to reach your goals. Obviously you won't lose 20 pounds in a week but setting a goal of 8 weeks isn't necessarily unreasonable. The key is to set the goal and then work towards achieving it. Along the way you will have many more successes than failures. In fact, you MUST overcome your fear of failure.



Set your time frame and commit to it. Use the following chapters in this ebook to help you do everything you can to reach your goals. As the fictional character Yoda once said, "There is no try, there is only do or do not."

Commit to your goal and execute your plan to achieve it. "Trying" leaves you an excuse for not experiencing the successes that follow from honest, committed effort.

I made myself accountable by choosing a powerlifting contest on a specific date and then telling my friends that I would be competing in it. Once it was written and public, I was committed. There was no try, only do or do not. And I did!

The Power of Positive Thinking



Of everything covered in this chapter, this is the secret weapon that will greatly increase the magnitude of the successes you will enjoy. The power of positive thinking has been described in the popular book and movie, *The Secret*. In a nutshell, the process is:

Ask → Believe → Receive

The process of Needs, Specific Goals and Your Time Frame described above covers the “Ask” step. The next two steps are where you get the bang for your buck.

Believe

The “Believe” step is a form of visualization. It is greatly enhanced by your specific goals and your time frame. You must believe you will succeed and you must visualize the specific actions that you will take to achieve your goals. I recommend that you take a moment, several times each day, to review your needs, goals, and time frames and visualize your success. Do not think upon things that do not contribute to achievement of your goal. If you miss a workout or eat a meal that doesn't fit in your plan, don't think about how it will negatively affect your progress, instead, think about how effective your next workout will be or how great your next planned meal will feel.

Receive

The “Receive” step requires you to think as if you have already achieved your goals. This keeps you in the present and keeps the fear of failure out. It can be very difficult to believe you are 20 lbs lighter when you look in the mirror and see it isn't so. What you **MUST** do is look at yourself and experience the feelings of being 20 lbs lighter. Making changes to your health can be disconcerting so the mental exercise of becoming comfortable with the changes is critical to your success.

It has been said that more people take action to avoid pain than to encourage pleasure. The Receive step is a mental exercise in encouraging pleasure. You will be amazed at how this simple mental re-alignment can turbo-charge the pace of your progress.

Conclusion

Making changes to your health and fitness is immensely challenging. If it wasn't, North America wouldn't be facing an epidemic of obesity and other chronic health issues. I applaud each and every one of you who have taken the first step and downloaded this report. It is my sincere hope that by sharing my personal experience and the tools I used to get off the couch and back into the gym will give you the friendly push you need to take action!

About the Author



Craig Hirota, BA Pol Sci, Personal Trainer Specialist, Kettlebell Trainer Specialist, Level 2, is a trainer, coach, and a competitive powerlifter.

He is a living testimonial for the integral role of the power of positive thinking in regaining health. Once vital and athletic, then morbidly obese, and back to healthy, he is passionate about helping others find their way out of bad habits and negativity and into health and regained vitality.

Craig is a member of Team Barbarian Strength Athletics and the Fitness and Performance Association (FPA). Craig networks with other experts in the industry to stay at the cutting edge of his profession.

CHAPTER 2

Nutrition for Fat Loss

Todd Matthews, BA, RHN, CSCS

If you want to get lean, nutrition is everything.

If you want to get lean, nutrition is everything.

This statement is so important it deserves repetition.

Whether it is to increase your performance on the field or look good on the beach, lowering your body fat will help immensely. To lower your body fat nutrition will be the single biggest piece of the puzzle.

For busy people eating to get lean will take careful planning and a commitment to eating simply. Healthy food is easy to prepare but it isn't exactly gourmet. Plan ahead and do batch cooking on the weekend so you'll have food prepared. Buy a cooler and take healthy food with you wherever you go. This way you will never find yourself in a situation where you don't have anything appropriate to eat. (No fast food is appropriate.)

The good news, for those short on time, is much of the food you'll be eating won't require any preparation except for washing. Protein is the exception; it will usually need to be cooked.

If you're ready to eat simply and ready to get lean then let's get started.

After a few years as a personal trainer, I realized exercise alone does not serve as the most efficient way to lose weight. Clients, adhering to my exercise programs, were weight training three times a week and doing up to four hours of cardiovascular exercise a week. Yet, some of them were not losing weight! How was this possible? They were burning about 500 calories per workout, which averages to about 3500 calories a week. As there are 3500 calories in a single pound of fat, that should be enough to drop 1 pound in a week. So, what exactly was the problem?

As it turns out, the problem was improper eating habits.

Here's how it works. Somewhere between 500 and 600 calories is perhaps the most energy the average sized person can burn from a one hour session of vigorous weight or cardiovascular training. But, an ice cream cone with a single scoop also contains as much as 500 to 600 calories. So, while in one hour you can burn off around 500 calories, you can also eat 500 calories in about 10 minutes. It's a myth that you can exercise hard, eat anything you want, and have a lean body.

I soon realized that I needed to add a nutritional component to my training programs for my clients.

The Secret to Weight Loss 70-25-5

The secret to permanent weight loss is the 70-25-5 rule. Regarding weight loss, diet is 70% of the battle, exercise is 25%, and supplements are 5%. The fitness magazines are stuffed with ads from supplement manufacturers trying to make you believe supplements are your key to weight loss.

Supplements can help give you a slight edge, but what you eat is really what will make or break your success. *(For more information, see David Gascho's article on supplementation)*. Exercise is far more important than supplements, but nothing is as important as the food you actually put into your body. Exercise helps significantly and provides numerous other health benefits, but until you address your diet, you won't see much progress toward your healthy weight goals. *(Refer to Chapters 3, 4, and 5 for more detailed information regarding exercise for fat loss)*.

To lose weight we need to consider two main nutritional factors.

1. The amount of calories we consume
2. Hormones that control metabolism

The Calorie Factor

First, there is the calorie factor. If you eat more calories than you burn, you will gain body fat. On the other hand, if you burn more calories than you consume, you will lose body fat. Therefore, less food consumption and more exercise will obviously help with weight loss.

The Hormone Factor

Hormones are powerful metabolic messengers directing the body to behave in certain ways. Hormones are related to stress, gender, energy production, sleep, and many other functions and processes in your body.

The hormone insulin forces the body to store fat and the hormone glucagon directs your body to burn fat.

If we can control these hormones, then, ultimately, we can control the process of getting lean. Good news; these hormones can be influenced by the foods we eat.

Some carbohydrate foods are dense with starch or high in sugar. How can bread, pasta, or sweets trigger the body to store fat? Starchy carbohydrates, flour products, and sugary foods raise blood sugar quickly. Elevated blood sugar must be lowered. Insulin lowers blood sugar by storing the sugar – pumping it into the cells – which makes you fatter. Now, you do need a certain amount of insulin to survive, but very high levels lead to metabolic syndrome diseases such as heart disease, type II diabetes, high blood pressure, and a poor cholesterol ratio.

Blood sugar fluctuations can also contribute to poor concentration and poor athletic performance.

So, how can we prevent this?

1. Eat smaller portions of carbohydrates at each meal.
2. Limit consumption of high starch and sugar foods.
(Elimination of these foods is often necessary to lose weight.)
3. Avoid liquid Carbohydrates – soft drinks, juice, sweetened coffee and tea.
4. Eat more healthy fats – olive oil, fish oil, avocado, nuts, etc...
5. Eat more fiber – whole fruit, whole grains, nuts, seeds, etc...
6. Eat more protein – chicken, beef, fish, eggs, etc...



Fiber, protein, and fat all slow down your digestion process and let the sugar from carbohydrates trickle into the blood stream more slowly. This gives you a steady stream of energy and lets your body burn more fat.

If we eat the right things, glucagon, a fat burning hormone secreted from the pancreas is elevated. Glucagon burns fat.

Insulin, a storage hormone, is reduced, therefore lessening excess sugar storage and, ultimately, fat.

Restaurant sized pasta dishes, most Chinese food, most fast food, will all have the same effect. People say they're hungry an hour after eating Chinese food. They say they're sleepy after a big bowl of pasta. Others say they're falling asleep at their desks after a fast food lunch. These people are feeling the lack of energy, hunger or lack of concentration these types of meals create. This is an indication that insulin has just aggressively stored excess carbohydrate (blood sugar) as fat. Their blood sugar is lowering and their bodies are fattening.

Each meal should have the following:

1. A complete source of protein
2. A small portion of low glycemic load carbohydrate source
3. A good source of fiber
4. A source of healthy essential fatty acids

Each day you should consume:

1. Raw foods
2. Probiotics (Acidophilus from yogurt, Kefir, supplements, etc...)
3. A wide variety of foods



Post exercise, or better yet during exercise is the only time you should consume refined carbohydrates. Current research shows that performance and recovery are vastly improved if you consume protein and carbohydrate during your training. This is only effective if the nutrition is liquid. Solid food takes too much energy to digest and can impair optimal performance. Mixing a diluted juice or a sport drink with whey protein isolate works well.

The optimal ratio is yet to be determined but research has shown that between a 4:1 and 2:1 carbohydrate to protein mix. A mix of protein and carbohydrate facilitates better performance and recovery than carbohydrate alone.

There are some companies that sell protein/carb sport drinks but most sport drinks just contain carbohydrate without the protein and are therefore less effective. Also be aware of additives, dyes and other unnatural ingredients that improve taste but may not be ideal for optimum health.

If you want to take advantage of the fat burning effects of human growth hormone (HGH) it would be best to eat nothing for 1-2 hours *before* and *during* a workout and eat only 25 grams of protein and no sugar/carbohydrate *after* a workout. You must keep this “carbohydrate fast” going for a full two hours after your training.

HGH is highest during sleep, during exercise and during a fasting state. Your workout will elevate HGH levels and your avoidance of sugar/carbohydrate for 2 hours after the workout will help HGH stay elevated. As soon as you eat carbohydrate, HGH will drop and your fat burning window will cease.

Performance and recovery, however, will be adversely affected by not consuming sugar/carbohydrate during and after your workout. This is the downside of not taking in carbohydrate during and after your exercise.

You must decide what you want to accomplish. If you're an athlete and performance is most important, ingest carbohydrates and protein during and after your workout. You will build muscle and lose fat even without the fat burning effects of HGH. If loss of body-fat is of primary importance and you don't mind your workout performance being affected, then you may want to avoid ingesting sugar/carbohydrates before, during and for 2 hours after exercise.

Sample Meal Plan

The following sample meal plan is for an individual of average size, wishing to lose weight and exercising 60 minutes or less per day. If you are an individual exercising more, you will have to consume more food. If you are a senior, a child, are pregnant, or have a special physical or nutritional needs this program will not be appropriate. This plan is an example and not meant to replace individual nutritional programming from a professional who knows your specific fitness goals, exercise regimen and health history.

Sample Meal Plan

Meals	Calories	Glycemic Load
Meal 1: Breakfast Smoothie		
- Protein powder (Whey Isolate)	114	0
- Plain Yogurt 1cup	149	9
- Strawberries 1 cup	49	3
Snack		
- 1 Apple	65	3
- Handful of raw almonds - ½ OZ (12)	81	0
Meal 2		
- 200g chicken breast	330	0
- Whole raw red pepper	51	3
- Whole cucumber (301 grams)	45	3
Pre/Post Workout		
- Diluted Juice / Sport Drink (29g carbohydrate)	117	3
- Protein Powder (15g protein)	57	0
Meal 3		
- 6oz top sirloin steak	320	0
- Raw carrots – 1 cup	50	3
- Grilled Zucchini - 2 cups	58	4
Total:	1486	31

(A glycemic load of fewer than 10 is considered low and therefore desirable. A day of healthy eating should have no more than a total GL of 100. For weight loss it will need to be much lower than 100.)



If you have the protein prepared ahead of time the carbohydrate sources will take very little preparation time as they will be eaten raw. Batch cook protein on Sundays and Wednesdays and you will always have some prepared ahead of time.

Time will be saved in the morning by starting the day with a fruit smoothie that can be prepared in the blender and consumed on the commute to work. Here's how to make it. Blend and enjoy the following ingredients:



Delicious Berry Recipe:

Water	-----	125ml / 0.5cup
Yogurt (plain /unsweetened)	-----	250g / 1cup
Frozen berries (any type)	-----	125-250g (0.5-1 cup)
Whey protein isolate (16-40 grams)	-----	1 serving

The way to add variety is to change the fruit from time to time; however, berries are the highest in antioxidants and one of the lowest on the glycemic index. Be sure to avoid bananas until you're only interested in maintaining you weight.

The protein powder you choose should contain no artificial sweeteners, artificial flavors, artificial colors, fillers, or preservatives. The only acceptable sweetener is Stevia or Stevia leaf. Stevia is a natural product, but I don't recommend it for weight loss. An important factor for weight loss is avoiding sweet tasting foods to wean you from your addiction to sweet tasting foods. We need to train the palette to get used to the taste of natural unsweetened foods. If possible, use an unflavored protein and let the natural, moderately-sweet taste of the fruit or berries impart the flavor.



Water is important for performance and weight loss. You should consume 1 liter (4 cups) of water for every 50 pounds of bodyweight per day. For example, a 150-pound person should drink 3 liters (12 cups) of water per day. Water is needed for many reactions in the body. It is necessary for the breakdown of stored body-fat. This breakdown of fat is called a hydrolysis reaction.

Fat may be broken down more slowly in someone who is dehydrated. Water can also be an appetite suppressant, because many people who over eat are really just thirsty. Some people improperly interpret signals from their body and think they are hungry when they are really thirsty.

Decide today that you're determined to get the body you desire. Whether you want to get leaner to increase your performance or drop a dress size I want to personally wish you the best of luck getting the lean and healthy body you deserve. There may be setbacks along the way, but with persistence you will succeed. Decide now how you want things to be. You can do anything you set your mind to and overcome any obstacle. All you need to do is go for it!

To get more information on my weight loss book *Get Lean and Healthy* go to www.getleanandhealthy.com .

To **preview** the book and get a taste of the system go to <http://www.lulu.com/content/478007> .

If you live in the Greater Toronto Area I invite you to contact me for a one on one personal nutrition consultation.

About the Author



Todd Matthews, BA, RHN, CSCS

With over twelve years of experience, Todd Matthews is dedicated to the field of health and human performance. He trains a diverse spectrum of clients - from high level athletes to once sedentary individuals - ranging in age from 14 to 90. His specialty is getting ordinary people into extraordinary shape through exercise and nutrition.

His experience combined with an extensive educational background make Todd Matthews an expert in his field. He holds a degree from Ryerson University, a diploma in Natural Nutrition and is an NSCA Certified Strength and Conditioning Specialist. As a Registered Holistic Nutritionist, Todd works with his clients to achieve healthy weight loss and increased athletic performance.

Todd uses his knowledge and experience to teach Sport Nutrition at The Canadian School of Natural Nutrition.

CHAPTER 3

The Most Time-Efficient Workout

Conor Kelly

Nowadays you're more crunched for time than ever. With relentless work obligations and family needs, is it any wonder that it's such a challenge to find the time to workout?

But a workout does not have to be a long, drawn-out affair. You can get a lot accomplished in just thirty minutes or less, three times per week.

If you have a workout facility at home or at work, you're way ahead of the game. But you'll need to know how to get the best possible result for the minimum amount of time. That means getting familiar with a few basics.

Although you've probably been taught that you need to do a lot of repetitions with light weight to eliminate fat, recent evidence suggests that repetitions in the range of 8 to 12 with heavier weights are more effective for fat loss. Shorter, high intensity workouts are more effective because your body expends more calories after the fact in recovery and repair. This means you can continue burning more calories long after your workout is finished, in some cases up to several days.

Also, the high intensity workout causes your body to release more growth hormone, which is the "youthful" hormone that decreases as we age, and has a positive impact on a number of your body's processes, including fat-burning. So while high repetitions do have a role in your workout program (think 'bootcamp style' bodyweight circuits) it's time that you got acquainted with workouts based on supersets and mini-circuits using *compound exercises* with free weights for moderate to low repetitions.



Compound exercises are movements that involve more than one joint such as squats, pushups and rowing movements. These use a lot more muscles and work your whole body much better, which is what you want, especially if you're on a tight schedule. Thigh-masters and stomach crunches are not going to get it done here! In addition, because free weights require you to balance more, they also recruit smaller supporting muscles, which most machines cannot do.

Performing this workout is relatively simple; you'll pick 2-3 exercises and rotate between them. For example, you could do dumbbell squats, bench press and dumbbell rows, performing each for 8-12 reps with a relatively heavy weight, and very little rest in between. The key is to choose upper body and lower movements to superset (perform back to back with minimal rest) or antagonist (opposite) muscle groups like chest and back, so that while you are working on one movement, the other muscles can recover, but your heart rate remains high. About five circuits like this should do nicely. Depending on how advanced you are, or how long you need to rest

between exercises, this can take anywhere from 15 to 30 minutes to complete. It is a very complete and effective workout.

If you have a bit more time, add a second superset or mini-circuit with new exercises. Try to target most of your main muscle groups in balance over the course of each week. Here are some suggestions for great exercise combinations:

1. Dumbbell Bench Press, Step Ups, Pull-ups (or Pull-downs)
2. Pushups, Pull-ups, Lunges
3. Deadlifts, Shoulder Press, Dumbbell Row
4. Dumbbell Shoulder Press, Squats, Chin ups
5. Step Ups (with dumbbells), Pushups, Barbell Row

There are limitless variations you can do, which also makes the workouts more interesting. Just remember to always challenge yourself, whether it's by increasing the weight, performing an extra circuit, or reducing the rest periods, because this is how you will progress. When properly executed, 30 minutes of this type of workout, even 3 times per week, combined with a program of supportive nutrition, would be enough to get leaner, reshape your body, and blast your fitness to the next level!



What About Cardio?

Contrary to what most people were led to believe, cardiovascular training alone is not the most efficient way to lose body fat. As I explained above, brief, intense resistance training workouts, performed in a mini-circuit training manner, result in a long term fat burning effect. Part of the reason for this is because that type of training will stimulate your lean muscle tissue which in turn will elevate your metabolism long after the workout is finished.

Having said that, there are still many benefits to cardiovascular training and it should have a place in your exercise routine. So what's the best way to get the most out of your cardio workout in the least amount of time? My recommendation is **interval training**.



Interval training involves alternating periods of high intensity exercise with periods of low intensity (e.g. alternating running and walking). Because the activity in the high intensity phase is more explosive, it creates a training effect in the muscles beyond that of conventional “steady-state” cardiovascular exercise (e.g. jogging), while also conditioning your heart. However, in order to use the optimal training intensity we’ll do this in short bursts, followed by a low intensity *active recovery* phase.

Because interval training is more intense, it will burn *more total calories* in less time. It has also been suggested that this effect continues up to 24 hours after an interval training session! This is most likely because your body expends more calories in recovering and repairing than it would for a less intense workout. Thus, it is possible for you to get a very effective cardio session in a lot less time, which is great if you can only workout for 15-30 minutes.

Training with intervals is dynamic and challenging, which makes it a great deal more interesting than regular cardio. You can alternate a minute of skipping rope with pedaling a stationary bike, weighted step-ups with walking on the treadmill, even jogging up and down the stairs of your office building, alternated with periods of walking circles backwards around your desk! It doesn’t matter; there are so many possible variations.

Alright, so now that you know *why* it works; you’re probably wondering, “How can I start incorporating interval training into my workouts?”

Well, I usually like to start clients off by doing intervals on a stationary or recumbent bike, because it’s simpler and there is less chance of injury. At first, each interval should be a bit longer, and the “active recovery” phase should be longer than the “sprint,” say 3 minutes compared with 2 minutes of high intensity. Try to use a perceived 80% effort for those two minutes, by the end of which your legs should be burning and you should have the feeling that you couldn’t keep going much longer. Do this by increasing the resistance and the speed of pedaling. To get the most out your intervals, it’s important that you slow right down to a comfortable 30% output for the recovery phase.

Repeat this process 3-6 times initially, but don’t forget to warm-up 5-10 minutes first, and cool down for about 5 minutes afterwards. The overall duration of your session should be between 15 and 35 minutes. You can perform these workouts immediately following the resistance training workouts I described above, or they can be done on a separate day if that is more convenient for you.

As you become more advanced, try to challenge yourself with shorter, more intense intervals, and equal periods of recovery. Try 4-10 intervals of 15-45 seconds at 90%-95% effort, alternated with 45 seconds at 30%, and vary the type of cardio as well. As with any type of exercise, you will get maximum results if you start gradually and push yourself more and more as your strength and stamina improve.

To learn more about my ©*BEYOND FITNESS* body transformation system, go to

www.TransformForever.com.

About the Author



"My mission is to educate and empower people using the truth about how to achieve fitness and be in the best possible shape, and to deliver with caring and integrity an accurate, tested methodology for getting them there in record time!"

-Conor Kelly, B.A., CPT

Conor Kelly is the owner of Evolution Fitness and one of the top trainers in Toronto, with 14 years of involvement in the fitness industry. His ©BEYOND FITNESS body transformation system has successfully removed 5,250 pounds of dangerous, unsightly fat from the bodies of Toronto residents.

Having appeared as a fitness expert on CTV's Canada AM, Conor is also a featured expert on SelfGrowth.com, Viva Magazine, and Forever Young Magazine. He is a recognized public speaker, and is known for his highly acclaimed "Stop The Confusion!" presentation, in which he teaches audience members how to reclaim their attractive, healthy, energetic body...once and for all! For success stories, articles, publicity snippets and more visit www.TransformForever.com.

CHAPTER 4

The Five Best Core Exercises for a Solid Midsection

Josh Hewett

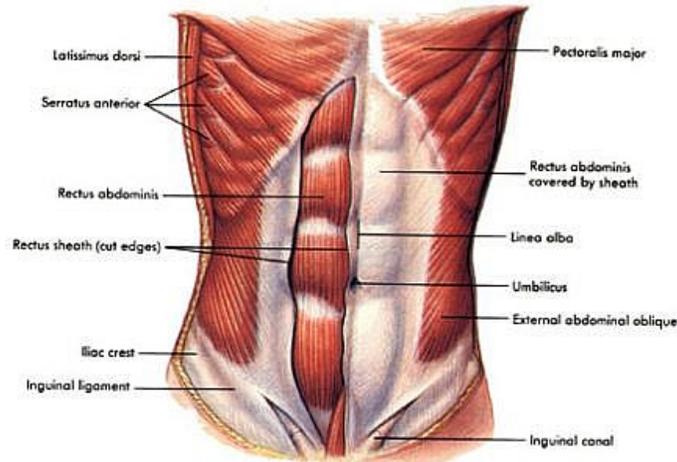
Almost everyone who is interested in getting fit and staying in shape also wants to develop a toned, solid midsection. Strengthening the core muscle group can enhance one's appearance (the much sought after "six-pack"), improve athletic performance, reduce back pain, and maintain better posture. Whether the goal is functional or aesthetic, the quest for a stronger core is very popular. Unfortunately, many people don't know the most effective ways to reach that goal and end up wasting time doing hundreds of crunches or one of the dozens of other abdominal exercise variations. Training your core this way can take a long time and delivers minimal results.

I subscribe to the K.I.S.S. (Keep It Short n' Simple) philosophy in order to accomplish more in less time. To accomplish this we need to implement a simpler, more efficient approach using more effective exercises. In this chapter I will explain the basic anatomy and function of your core musculature and describe what I believe to be the most effective exercises to train your core, and why.

First of all, let's take a look at the core structure and anatomy. The core muscles are the muscles in the body's center of gravity that support the spine and torso and they are also the muscles that initiate movement. Often people only consider their "core" as being their abdominals; however, the "core" musculature includes your entire midsection, including the following:

- **Rectus Abdominis.** - The abdominal muscle group referred to as your "six-pack".
- **Internal and External Obliques.** - These run in opposite directions to each other and are on the abdomen and sides.
- **Transverse Abdominis (TVA).** - This is the deepest layer of abdominal muscles that wrap around the waist, located underneath the obliques.
- **Multifidus & Erector Spinae.** - The lower back muscles that support and rotate the spine.
- **Hip Flexors and Abductors.** - The muscles of the hip and inner thigh.
- **Gluteus Medius, Minimus, & Maximus.** - These muscles are often referred to as the butt or "glutes".

You don't need to remember the names of these muscles, but it's nice to be able to visualize where they are on your body so you can get an idea of how to train them. These are the muscles in the front, sides, and back of your midsection that run vertically, diagonally, and even horizontally (the transverse abs). The exercises I will be describing to you will target each of these main areas.



The basic action of these muscles when they concentrically contract in isolation is to flex, extend, rotate and side-bend the torso. Their primary function is actually to **resist motion** in these planes, and to maintain posture and **stabilize** the midsection and spine during functional activities. Considering this you need to challenge these muscles isometrically as well, by including exercises which force you to resist movement and maintain core stability.

Let's look at what I consider to be the most effective core exercises. Some of these movements are more advanced, so I will also suggest exercise progressions to help you prepare for those exercises. Here the **Five Best Core Exercises**:

1. **Power wheel rollouts** (resisting extension)
2. **Power wheel pikes** (resisting extension)
3. **Hanging knee raises** (flexion)
4. **Resist the Twist** (resisting rotation)
5. **Deadlifts** (extension; resisting flexion)

With these basic movements you are targeting all the primary core muscles.

1. Power Wheel Roll-Outs

The Power Wheel has been endorsed by many of the industry's leading strength coaches and trainers and is now my favorite tool for training the core as well. It was also rated as the "**Best Core Trainer in the World**" by an independent study at the University of California, Berkeley. Check out the study here: <http://top-form-fitness.com/pwrwheelstudy.pdf>. If you're sick of all of the "ab" gimmicks on the market, this simple piece of equipment is the real deal. To learn more about the Power Wheel, check out: www.StrongestCore.com



Placing the body in an extended position and adding load has been shown to be the best method for stimulating abdominal strength. During Power Wheel roll-outs the core muscles are engaged isometrically to resist the extension, which makes this an extremely productive AND functional movement.



The rollouts are performed with your knees on the ground and your hands holding the handles on either side of the wheel, as shown. Begin with a neutral spine and the wheel directly below your shoulders. Before you start to roll your arms out in front of you, you must straighten your hips and strongly contract your abdominals to keep your back flat and your pelvis tucked in. You must maintain this stabilization of your midsection throughout the movement to prevent your back from extending.

Once you are extended fully from your knees to your shoulders, you can slowly start to roll your upper body out in front of you, then pull yourself back to the start position keeping your arms straight during the entire exercise. Tension should be maintained through the torso, arms and lats. As you become stronger you can extend your range until you are able to lower yourself all the way to the ground and back up. Very advanced trainees can attempt to perform this same exercise from your feet, with your legs straight.

This exercise is more challenging than most people expect, especially if you don't pay close attention to your technique. Therefore it may be necessary to perform some exercise progressions until you are able to do the roll-outs correctly.

Progressions for the Power Wheel Roll-Out:

The Plank - The plank is a great basic exercise for developing core stability. Support yourself from your feet to your elbows with your body completely extended in a straight line. Hold for 30 seconds. I also recommend starting all of your workouts with this exercise as part of your warm up, in order to activate your core muscles in preparation for training.

Plank on Ball - This is the same exercise as above, except that your elbows are supported on the ball. According to Men's Health magazine, planks on the ball are 30% more effective than regular planks. They're certainly more challenging!

Plank on Ball with Arm Extension - Start out performing this exercise from your knees and extend your arms out in front of you while extending your body straight out. Hold for 5 seconds then roll yourself back in until your elbows are bent at 90 degrees again.

Once you master these progressive exercises you should be ready to perform the Power Wheel Roll-outs!

2. Power Wheel Pikes

This is another great Power Wheel exercise that involves resisting extension through your torso, except this time you place your feet in the foot pedals. Once your feet are secured in the Power Wheel foot attachments, hold yourself in a pushup position with your hands on the floor directly under your shoulders and your legs extended straight out. Again, stabilization is very important and you must not allow your back to cave in during this movement.

Now roll the wheel in towards your hands by bending at the hips and raising your butt upwards. Keep your legs straight and your abs engaged during the movement. Once you have rolled in as far as you can, extend your legs back out again and repeat.



Progressions for the Power Wheel Pikes

Plank with Feet on Ball - This plank variation is performed with straight arms and with your feet on the ball. If you find it too challenging to balance on your toes, bring the ball in closer so that your shins are resting on the ball. Hold for 15 to 30 seconds.

Ball Jackknife - This exercise is the same as the previous one except that you will roll the ball in and out with your feet while stabilizing your core. This is usually a tough one to get the hang of, but once you find it easy you should be ready for the Power Wheel pikes.

3. Hanging Knee Raises

This exercise was also at the top of the list of best core exercises from the Berkeley study. The hanging knee raise is a classic exercise that many people do incorrectly, but when done right it is safe and effective. These can be performed in a few different ways. You can hold onto a bar overhead and hang freely during the movement. Or you can use those elbow “ab” straps that wrap around your arms and connect to the overhead bar. There is also a piece of gym equipment that is often called a Roman Chair, where you can support your upper body on elbow pads and lean back against a back support. In every variation your legs are hanging freely below you.



To start, contract your abdominals and raise both knees up toward your chest while slightly flexing at the waist. Your knees will bend on the way up, and then extend at the bottom. Perform this movement slowly and with control, without losing tension in your midsection. Your lower back should not arch or extend during this exercise!

Progression for the Hanging Knee Raise

Lying Knee Raise - Also known as the reverse crunch, the lying knee raise is a good progression for those who find the hanging knee raise too challenging. It involves lying flat on your back on a bench and holding onto the top of the bench over your head. With your knees bent, slowly raise both feet off the bench contracting your abdominals until your hips are elevated only an inch or two. Your core muscles should be under great tension at this point. Lower and repeat. Be careful not to swing your hips up, or roll too far up over your chest as gravity will be making the exercise easier in this manner.

4. Resist the Twist ©

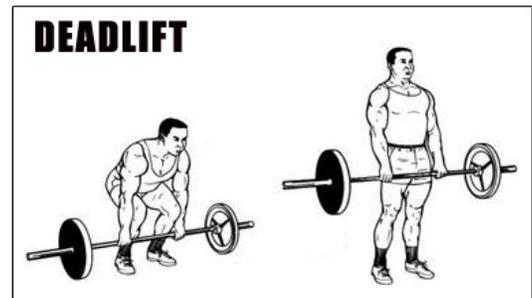
Rotational strength and stability is an important element of developing a powerful, toned core. This is a variation of another great core exercise called the **Pallof Press**. I call it **Resist the Twist** because, well, essentially that's what you're doing. I know... not very creative.

With this exercise you are going to stand perpendicular to a cable machine holding the handle of the cable with both hands in front of your chest. This can also be performed using heavy resistance tubing in the same manner. Start with both arms bent, holding the handle close to your chest. Then extend both arms straight out in front of you and brace yourself against the rotational pull of the cable. Hold this position for 5 to 10 seconds without moving, keeping your core tight, your arms extended, and your spine neutral. Then bring the hands in toward your chest again and repeat.

This exercise can also be done in a tall kneeling position (do not sit your butt back). Be sure to keep your body tall and the origin of the cable or tubing should be at chest level.

5. Deadlift

You may not have considered the deadlift to be a **core exercise**, but it is an excellent compound movement that requires bracing (rigidity) and is crucial for developing the posterior chain (the other half of your core). The deadlift works virtually every muscle, with emphasis on the quadriceps, hamstrings, gluteus maximus, and most muscles in the back. The remaining muscles are involved in stability control. I believe the deadlift should be included in most training programs. You can include it in your circuit training program. It will build powerful back and legs and causes a strong co-contraction of the anterior core (your abs).



As with all of the exercises I've described, technique is very important with the deadlift. Start by standing with the bar in front of you, so that it is over top of your feet. Use a slightly narrower than shoulder width stance with your feet facing forwards. Lean forward to grasp the bar with your hands slightly wider than shoulder width apart. Make sure your knees are bent and your back is flat. Your butt and chest should be sticking out. Keeping your back straight (or slightly extended) and your arms straight, lift the bar to a standing position using your legs and back muscles. The bar should stay close to the body during the lift. At the top, press your hips forward and open up your chest to complete the lift. Use control when lowering the bar to the ground.

Those are my top 5 best core exercises. As part of an integrated approach to exercise and nutrition, these exercises will contribute significantly to achieving a stronger, leaner looking waistline. They can be incorporated into a resistance training program, such as the one Conor Kelly described earlier in this report, or they can be performed separately as a core workout.

Other Training Tips for a Toned Midsection

Get Lean to Flaunt Your Abs

Some people believe that performing abdominal exercises will give them a “six pack”. However, key to creating an impressive, defined waistline is to reduce your overall body fat percentage. It’s a myth that training your core will “burn off” the body fat around your waist. To create a sculpted midsection you need to follow an intelligent nutrition plan and perform calorie burning compound exercises in a well designed program. Refer to the other articles in this report for more information. However, the core exercises I’ve shown you will help you develop the impressive abdominal musculature to show off once you become leaner!

Activate Before You Ab-dominate

You’ve never heard the word “abdominate” before? OK, I made it up... but it should be a word! What I’m suggesting here is that you activate your core musculature before every workout by using simple isometric exercises such as the **plank, side plank, and the bridge**. Perform just a few seconds of these exercises to engage your core (not to fatigue it) before you do anything else. This will increase your stability and help prevent injuries.

Use Multi-Joint Closed Chain Exercises

Compound exercises that involve moving your entire body like the squat, deadlift, lunge, standing press, chin up, pushup and others require significant core stability. By incorporating these exercises your core muscles are being challenged during the rest of your workout as well. Best results are achieved by using functional, free weight, ground based movements. I also advise **against** using any belts, wraps or straps during most of your regular training, as this can decrease the involvement of the important core stabilizers. These training accessories should be reserved for maximum lift attempts and competition, unless otherwise indicated for specific injuries.

Don’t Be a Suck

With the advent of the term “core stability” there has been increasing emphasis on the deeper abdominal muscles such as transversus abdominus (TA). Whereas the exercises I’ve provided for you require a significant involvement of almost every core muscle, TA exercises are more concerned with a ‘drawing in’ (sucking in the belly) of the abdominals in an attempt to improve posture and stability.

However, this method of engaging your core is impractical when performing challenging exercises such as the ones I’ve described. What you actually want to do is ‘brace’ your midsection. It’s basically the opposite of drawing in. Imagine you are about to take a punch to the stomach from a heavy hitter. Would you suck in your belly (ie- drawing in) or would you tense it as hard as possible? If you’re smart you’ll tense it! This is called bracing and it causes your abdominals to extend slightly, creating a larger cross-sectional area, increased intra-abdominal pressure, and more stability.

Consider what you do when you perform a heavy squat or deadlift in the gym. Do you draw in or brace? You will find that you naturally brace hard without needing to think about it. This doesn't necessarily mean that the TA people got it wrong; it's just an example of an idea being taken too far. There is still a place for deep core muscle activation work in your everyday life. While sitting at a desk, driving, or walking, draw in your stomach to help maintain a tall, strong, straight-backed posture. But when you need to generate speed and strength, brace as hard as you can!

Conclusion:

If you want to develop a strong and solid looking midsection, then these **Top Five Best Core Exercises** will definitely do the trick. Building powerful core muscles will also increase your gains in every area of your workouts, because your core is the powerhouse which supports every other part of your body.

The five exercises I've shown you were chosen based on research, exercise science, as well as personal experience. They were not picked at random because they looked cool in a fitness magazine. Watch a video of the exercises here:

In combination with following the advice from the other articles in this report, performing these exercises will help you reveal the shredded abdominals you've always wanted. When it comes to training your core, this is what really works!

To watch a video demonstration of these exercises, go to this link:
<http://tinyurl.com/BestCore>

About The Author



Josh Hewett, BA Kin, PTS, is a certified trainer, coach, competitive strength athlete, and the creator of several valuable training resources. He is a two time finalist at the Ontario's Strongest Man competition and is still actively competing in the strength sports. He is the owner of Top Form Fitness Systems and the founder of Team Barbarian Strength Athletics (OPA affiliated). As a member of the Fitness and Performance Association (FPA), Josh networks with other experts in the industry to stay at the cutting edge of his profession.

His articles have been featured on many popular websites including Elite FTS, The Diesel Crew, Straight To The Bar, QFAC, and many others. Josh is not just another "internet guru", but has been working in the fitness and physical conditioning industry for over 20 years, and has helped hundreds of people reach their fat loss and fitness goals using his proven training system.

To learn more and read some success stories, visit www.Top-Form-Fitness.com

CHAPTER 5

Get Your Beach Body Back - The Benefits of Outdoor Training

Karsten Jensen, M.sc

Dear Friend,

If you were looking for a good reason to go on vacation, then this article should give you another incentive to head for the sand and sun.

In this article I will explain some of the **Unique Properties of the Beach** that can help you get in better shape faster. This is the first of 5 reports I have written on exercising with sand and water. The other reports show you different aspects of strength training with sand and water, and all of the reports are available individually and as one book at our website www.yestostrength.com.

This article is referenced throughout and the references are indicated by a number after certain sentences. You can review the references at the end of this report, if you are interested.

The Unique Properties of the Beach

The beach is certainly great for relaxing, swimming, getting some sun, and escaping from the city life. However, from a training standpoint the beach also has several unique properties that you can use to your advantage, including:

1. The water creates hydrodynamic resistance.
2. The sand is unstable.
3. The sand is soft.
4. The sand is heavy.
5. The air is fresh.
6. We can train barefooted.

Let's take a closer look at these properties and how they can benefit you.

1. The water creates hydrodynamic resistance

You have likely already experienced hydrodynamic resistance. If you have ever tried to walk in waist high water, you know what I am talking about. It's hard! You are walking against the resistance of the water; this is referred to as hydrodynamic resistance.

If you are standing in the gym and lifting a dumbbell, gravity is the resistance and it is working downward. This is called dynamic constant external resistance training ⁽¹⁾. When you are moving your body or an object in the water, the effect of gravity on the load is counteracted because of the buoyant forces acting upward in the water ⁽²⁾.

Instead of gravity being the primary source of (vertical) resistance, you are now working against the resistance of the water. The resistance of the water is always working opposite the direction of movement. The forces you need to produce in order to overcome the water resistance depend on ⁽³⁾:

1. The area of the body or object that is facing the movement direction.
2. The velocity of your movement squared.
3. The shape of the body or object that is moving through the water.
4. The degree of friction between you and the water.

The above points mean that the larger the area of your body or an object that is facing the movement direction, the more force you need to produce. It also means that it requires a substantial increase of force to increase the velocity of your movement just a little bit. This is because the forces required are proportional to the velocity squared.



Bottom line

We can get a great workout by moving through the water as fast as possible. The resistance is opposite the direction of movement, not downward. While slow training or even isometric training can be very beneficial on land, you must always move as fast as possible to really benefit from hydrodynamic resistance.

2. The sand is unstable

Perform an experiment:

Stand on one foot. Your goal is to maintain the balance for as long as possible before touching the ground with your free foot. Now, go to a section of the beach that has soft sand and repeat the experiment. I will bet you that you can maintain your balance longer on a steady surface compared to the sand. This is because the sand is unstable; it is one of **Mother Nature's balance boards**. Maintaining balance is a skill. In solving the task of maintaining balance, the nervous system constantly processes input from the eyes, the inner ear, and the proprioceptors of the joints and muscles (including those forming the soles of your feet).

Studies show that your nervous system will activate muscles of both the lower leg and of the trunk ⁽⁴⁾ in response to various perturbations in order to prevent you from falling.

Among the sources of input to the nervous system are the soles of the feet. In the process of maintaining balance you probably noticed small movements of the stance foot, where the pressure shifted from the internal to the external edge of the foot. This happens on a steady surface, but also on the soft sand. These small movements are more taxing to perform on soft sand because the sand moves. This instability signals the nervous system to “adjust the adjustment” in order not to fall.

The instability of the sand varies significantly with the type of sand you are standing on.

There is an even **harder** way to practice balance on the beach, by moving to the edge of the beach, where the waves come in. When the waves move out a small strip of the beach is revealed, where the top layer of sand is pulled out by the wave. The small strip of sand is the edge of the beach.

To some degree the edge of the beach is more challenging than a balance board. Rather than a constant instability, the edge of **the beach instability changes with the coming and going of the waves**



Bottom line - The beach provides for great balance training when those balance exercises are performed at the edge of the beach, where the movement of the waves pull the sand out into the ocean.

3. The sand is soft

This is partially true. At some parts of some beaches the sand is relatively hard. However, on the “typical beach area” the sand is soft which makes it comfortable to lie on. This feature of the sand obviously relates to our topic above – **the sand is soft because it moves when we apply force on it**. I give this feature of the sand a separate coverage because this softness can be exploited for something completely different than balance training.

When we walk, run, sprint or jump on a steady surface each foot contact creates an **impact force**. To get an idea of how our bodies experience this impact force, take your bathroom scale and drop a 2-3 pound item on it. Watch how the indicator violently rises before settling at the level corresponding to the weight of the item.

This means that the body – at the moment of foot contact with the ground - experiences (deceleration) forces that are far greater than the acceleration experienced during a free fall (for example a bungee jump). The fact that we don't injure ourselves with every step we take only goes to show the great design of the human body.

These forces travel up through our body, but we are designed in such a way that our fascia and muscles dissipate these forces before they reach our cranium⁽⁷⁾. This process of dissipation depends, among other things, on the supporting surface.⁽⁵⁾ Thus, because of its yielding properties, **impact forces experienced when running, sprinting or jumping on sand are reduced compared to performing similar activities on a solid surface**.

The body will even experience significantly different levels of impact forces depending on the type of sand moved upon: There is a four times greater impact force on wet compacted sand compared to dry un-compacted sand⁽⁸⁾. Excessive exposure to impact forces can be a factor in tendon and/or joint injury⁽⁹⁾. Symptoms from impact related overuse injuries, like shin splints or tendonitis, will diminish when a volleyball player transitions from the hardwood floors to the beach.

Studies have shown that performing plyometric and sprint training in sand can improve speed and jumping ability in soccer players.⁽¹⁰⁾ Further there seems to be a high correlation between jumping ability in sand and jumping ability on a hard surface.⁽¹³⁾ This means that to some degree it is the same capacities that are behind performance on both surfaces.

Bottom line - You can make your running, sprinting or jumping easier on your joints and tendons by performing this training on the beach.

4. The sand is “heavy”

The dry un-compacted sand is soft on our tendons and joints because it moves when we land on it. But for the same reason it is also much harder to run, sprint or jump in the sand. **Running** on sand has a 1.2-1.6 times greater energy cost compared to running on a firm surface.^(14,15)

If you are **walking** (at speeds exceeding 3 km/h) the difference in energy cost increases to about 1.8-2.7 times more on sand than on a firm surface.^(14,15) The same pattern is seen during **repetitive jumping exercises**. The energy consumption during jumping in sand is about 120 percent of the energy consumption during jumping on a firm surface.⁽¹⁶⁾ Also, your maximum jump height is significantly reduced.⁽¹¹⁾

The increased energy consumption when running, walking or jumping in sand can be explained by:

- A reduced recovery of potential, kinetic and elastic energy.⁽¹⁴⁾
- A decrease in efficiency of the positive (in take off phase) work done by muscles and tendons.⁽¹⁵⁾

But what does that really mean? In natural movements like walking, running or jumping, our leg muscles work in a so-called **stretch-shortening cycle**. For example, if you want to jump as high as you can you would start with reasonably straight legs, then dip down quickly and with no pause, perform a powerful extension of your hips, knees and ankles.

Using a stretch-shortening cycle makes us jump higher and run faster with less energy expenditure. However, in an optimal stretch-shortening cycle the transition phase between the yielding (the dipping) and the propulsion must be quick and with no pause.

The sand does not allow for an optimal stretch shortening cycle: it moves when we apply force to it and transition is slowed down. When the transition between the yielding and the propulsion phases is slowed down there is a reduced recovery of potential, kinetic and elastic energy and we lose the benefit of the stretch shortening cycle.

Now let us take a look at a jump with no stretch-shortening cycle: Instead of performing a dipping action you start with the knees bent and take off in one powerful motion. If you were to perform the above movement on a firm surface, ALL your effort goes into lifting your body. On the sand, however, some of your effort goes into propelling the sand backwards. This is the cause behind the reduced efficiency of positive work done by muscles and tendons in the take off phases.

Bottom Line - It takes more energy to move on sand and you cannot sprint as fast or jump as high as you can on a firm surface. Also, because of the reduced benefit of the stretch-shortening cycle and the fact that the sand moves, you need to **work harder** in the propulsion phase of a sprint or a jump.

5. You are exercising in fresh air

The fresh air is obviously not a unique feature of the beach. These elements can be present in any kind of outdoor training (unless you are living in an area with air pollution). I think that all of us intuitively know that fresh air is good for our health.

Open air conditions speeds up your metabolism.^(18e) Obviously this fact is of particular interest if your goal is fat loss. Training outdoors also offers the added benefit of wind resistance. The wind creates resistance which offers a greater effort and energy expenditure than training indoors.

George Hackenschmidt, a famous wrestler and strongman, recognized the significance of training outside and getting as much fresh air as possible. In his highly recommended book "The Way to Live", published in 1935, Hackenschmidt had written:

"The principal food for man is pure air," and "If at all possible, expose the naked body to the sun. Man is a creature of light and air and I should therefore recommend little or no clothing when training." Sounds like a great recommendation for the beach!

Bottom line - Get outside! Training in fresh air, especially with wind resistance and in cooler temperatures, has positive benefits on your metabolism, stamina and muscular development compared to indoor exercise alone.

6. We can train barefooted on the beach

Back in Denmark in the mid nineties I was attending track and field practice in the local club. The tracks surrounded a soccer field (grass) and during summer times it was a customary practice to finish the sessions with a number of barefooted sprints across the grass. It served as a kind of cool down and we were never given any particular explanation for this barefooted practice. But it felt good. Grass and the beach are probably the two most obvious surfaces to enjoy barefooted locomotion and science tells us that there is a lot more to barefooted training than “feeling good”:



- Plantar skin surface thickens with barefoot activity, is in general well protected and, thus, the **risk of injury during barefooted activity is low**. For example, a lower risk of plantar fasciitis is associated with barefoot activity ^(20, 21).
- Plantar surface sensory feed back (which is increased in the barefoot condition compared to when wearing shoes) is extremely important for balance and efficient locomotion ⁽²²⁾.
- Barefooted activity **reduces impact loading** through allowing for deflection of the longitudinal arch of the foot and promoting greater knee flexion during walking and running ^(21, 23).
- Barefoot activity encourages **better alignment of the toes** with the metatarsal bones and more “grasping” of the surface with the toes ^(24, 20).
- Barefoot activity seems to stimulate the intrinsic muscles of the foot, which serves to **increase the arch of the foot** in individuals with a reduced arch ⁽²²⁾.

If you are an athlete, these barefoot effects are extremely important. I have experienced many athletes being forced to prolong periods of reduced training because of plantar fasciitis, flat feet or various toe problems. The reduced training time may have been avoided with more barefoot activity. From a performance perspective, strengthening your toes alone can play a small but significant role in improving your vertical jump. The toes are the last link in the chain.

Now, you might have images of yourself running barefoot on cement or tar and thinking that this cannot be done. Do not worry! If you are considering barefoot activity on other surfaces than the beach, I encourage you to go to www.vibramfivefingers.com and check out their site. Those are the only shoes that I personally workout in and I highly recommend them.

Bottom line - Now what does all this mean? Barefoot activity on the beach is safe and offers a bunch of beneficial effects for your feet and for your performance.

These effects include:

- optimal development of the arches of your feet
- better alignment of your toes
- strengthening of the intrinsic muscles of your feet
- better balance and more efficient locomotion

Conclusion:

I hope by now to have convinced you that there are unique benefits to beach and outdoor training. Training on the beach can help to improve your health, reduce body fat, spare your joints, and improve strength, power and endurance.

It is my sincere hope that you will be able to benefit from the information in this report. If you are an experienced trainee, maybe you already have various ideas of what to do on the beach, but if you are less sure about which exercises are suitable for the beach, feel free to visit our site www.yestostrength.com to check out the other free reports.

Now get out of that stuffy gym and head for the beach!

Move with passion,

Karsten Jensen

About the Author**Karsten Jensen**

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Karsten Jensen has worked as a Strength and Conditioning Coach for the Danish National Elite Sports Institution, Team Denmark, from 1999-2007. Since immigrating to Canada he has authored several e-books, including “Best Butt on the Beach”. His particular expertise is designing individualized training programs for athletes at the national and international level. He currently works as a High Performance Trainer at the University of Toronto and also shares his knowledge with other trainers through lectures and at his website www.yestostrength.com. He holds a Masters degree in Exercise Physiology, is a Chek practitioner Level 2, and a Chek Holistic Lifestyle Coach - level III.

CHAPTER 6

The Truth About Fat Loss Supplements

by David Gascho

With the obesity epidemic we are currently faced with in this country it is no wonder dietary supplements, more specifically fat loss supplements are immensely popular. This is a result of the media touting “quick fix solutions” and “magic bullets” as the answer to “fast and effective” weight loss. The sad thing is that as long as there are people out there believing that taking a few pills will help them drop a few pounds, there will be dozens of companies lined up to sell them a product. Unfortunately there is very little scientific data to support many of the fat loss supplements available. To make matters worse many of these companies fund their own research. Suffice it to say, the “results” from this research is questionable at best! During this section I will be discussing some of the more popular supplement ingredients and their effect on fat loss



The first supplement that will be discussed is Citrus Aurantium or “bitter orange”. Many products that used to contain ephedrine now use this. Ephedrine (in doses greater than 10mg) was removed from products in 2004 due to some of its negative side effects. Citrus Aurantiums most active components are synephrine and octopamine which are frequently referred to as ephedrine’s “chemical cousins”. However, there has only been one legitimate full-length, peer reviewed published study to date using C. Aurantium as a weight loss aid in humans. Therefore, it is impossible to draw a sound conclusion because this study provides very weak evidence in favor of C. Aurantium.

Green Tea extract has also recently seen an increase in popularity. It is hard not to find it on the ingredient list of fat loss supplements. However there are no long term research studies linking green tea to fat loss. There is research to support tea consumption correlating with lower body weight (not to mention many other health benefits). Regular tea consumption (minus the cream and sugar of course) seems to be beneficial for overall health. Along side water this is one of the few beverages that I recommend!

Fish oil can be indirectly beneficial for fat loss. Several studies have shown that fish oil increases insulin sensitivity and encourages the use of fat as a primary energy source. As such, besides decreasing inflammation and increasing cardiovascular health, the essential fatty acids in fish oil may also provide substantial weight and fat loss benefits. LNA, EPA, and DHA can enhance lipolysis (the breakdown of fat stored in fat cells), and decrease lipogenesis (body fat formation). The combined breakdown of stored body fat and the decrease in additional body fat can have very positive results for anyone trying to lose weight. You actually end up producing less and breaking down more body fat when using these oils.



Caffeine has long been used as a “fat loss” ingredient because of its well-documented effects on thermogenesis (process of heat production in organisms) and lipolysis. It is often coupled with other products as a weight loss or energy “stack” such as E.C.A. (a combination of ephedrine, caffeine, and aspirin). There is research supporting caffeine’s role in lipolysis with higher doses. However, it is important to realize that there are also some negative side effects associated with higher doses of caffeine including increased heart rate and blood pressure. Caution is advised when taking higher doses. I recommend no more than 100 mg which is equal to one regular cup of coffee (preferably in the morning as to not interfere with sleep patterns).

Conjugated Linoleic Acid (CLA) is a supplement that has been proposed to increase metabolism and increase fat utilization; these combined effects should result in weight loss. CLA is found primarily in dairy (not skimmed) and meat (beef and lamb). The research on CLA and body composition in animals has been extremely positive. It must be noted these positive results have not been so consistent in humans. Although recently Jean-Michel Gaullier completed a one year study to determine the effect of CLA on body composition in healthy overweight adults and had very positive results, most research has reported no body composition change in humans, or positive changes only in obese individuals. There is very little research showing a benefit in non-obese, healthy individuals.

There are many other questionable supplements sold that make promises such as “Drop 25 lbs in two weeks”. The bottom line is that if it sounds too good to be true, **IT IS!!** If you are serious about losing weight become an informed consumer, look for research (or lack there of) and check the source before investing your money in a product. A word of caution when considering any supplement: it is important to consult your doctor. One man’s medicine can be another man’s poison.

It is important to realize that although some supplements may be beneficial they are only a very small piece of a much bigger puzzle. The key to a successful fat loss program still lies in following a **healthy diet and exercise plan!** It is also equally important to consult a professional when starting an exercise plan. Taking supplements for fat loss without changing eating or exercise habits is like trimming weeds in a garden; if you don’t take care of the “root” of the problem the results will be short-lived.

In health,

David Gascho

About The Author



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