HOW TO BECOME A FAT-BURNING MACHINE!

BY DEAN GEDDES

This is my 2 Tanks System, it is the fastest way to burn fat naturally. I first wrote of this back in 2006 in my best-selling book Superfast Weight Loss for Women (known as 2 Fuel Tanks System back then)

I came to realise this 2 Tanks System late one chilly evening in the middle of an Auckland (NZ) winter. I was dieting for the national bodybuilding champs, and due to being late home, I wasn't able to go for my fat-burning walk at the usual time. Considering I had to get up at 5 am the next morning for work I wasn't that happy about having to walk late at night when I'd rather be in bed. But I had set myself a personal goal of never missing a fat-burning session as part of my preparation (I was 'scared that if I missed one fat burning session I could miss many).

I like to listen to music when I go for my walks, but on this particular evening, the batteries went flat. Walking around the local streets late at night, in the cold of winter, and not having anything to listen to provided me with plenty of time to think about why the heck I was doing this. This is when I came to realize that there is an optimum way to burn fat and hence lose weight….and this was the creation of my 2 Fuel Tanks System!

Just because you're exercising, doesn't mean you're burning fat.

The key factor when exercising is: 'Where are these calories I'm using for this exercise coming from?' Is my body using carbs to fuel it, or is it using stored fat or is it breaking down muscle for energy?

Let me show you the most effective way to burn body fat for exercise.

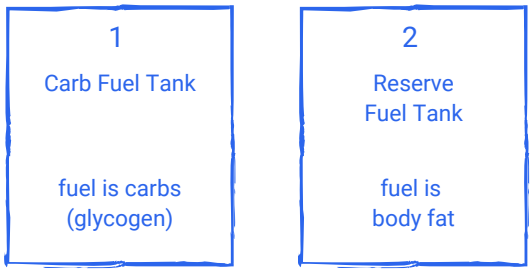
Effective fat-burning depends on

1. How many carbohydrates you've recently eaten.
2. The type of exercise you do.
3. Your heart rate when exercising.
4. How long you exercise for.

To understand how weight loss works I want you to think of your body as having two fuel tanks. Unlike a car, which has only one fuel tank, your body has two. Your body has a main fuel tank that it likes to use for energy, and it also has a reserve fuel tank which is there as a backup for when the main fuel tank runs low.

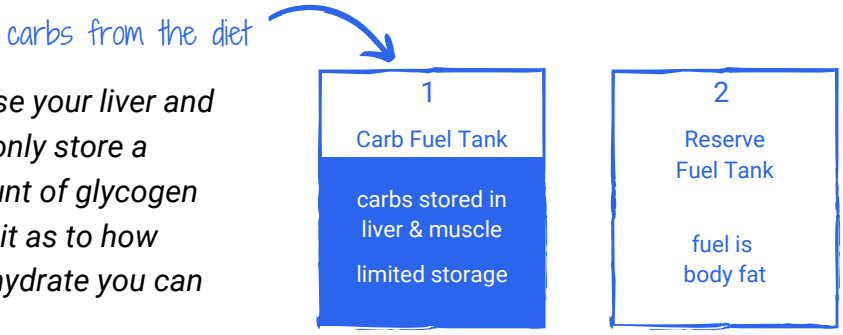
The main fuel that the body uses is stored carbohydrates. When you eat carbohydrate foods the body breaks them down into their constituent sugars and, through the actions of insulin hormone, stores them in your main fuel tank as Glycogen (fig. 1).

Fig. 1 Your body has two fuel tanks that store energy. There is a carbohydrate fuel tank and a body fat fuel tank.



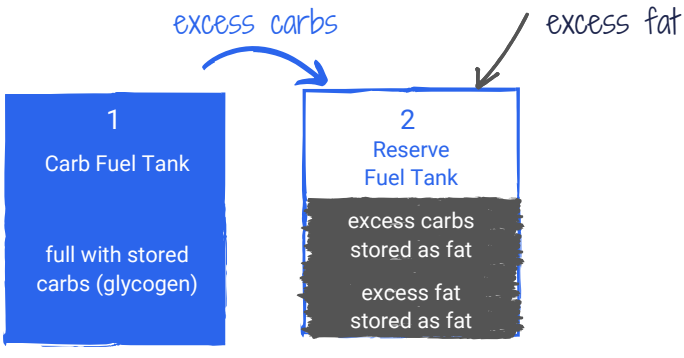
The carb fuel tank is comprised of your liver and your muscle. Your liver stores carbs to provide energy for your brain and your muscle stores carbs for movement. Because your liver is a certain size, and you have a certain amount of muscle, you can only store a certain amount of carbs. Therefore your carb fuel tank (liver and muscle) can only store a certain amount of carbs which means you can only eat a certain amount of carbs before you reach capacity (fig. 2).

Fig. 2 Because your liver and muscle can only store a certain amount of glycogen there is a limit as to how much carbohydrate you can eat.



If you eat carbohydrates over consecutive meals, without burning them off with exercise or strenuous activity, you will easily fill your carb fuel tank. If you continue to eat carbs and your carb fuel tank is full, the body will take the carbs it can't store there and convert them into fat molecules (occurs in the liver) and then store them as body fat. Excess dietary fat is also stored as fat. This often occurs in Paleo and Keto diets. (fig. 3).

Fig. 3 If you eat more carbs than your body can store as glycogen, the excess will be stored as fat. Excess fat is also stored as fat in the reserve fuel tank.



Carbohydrates are the body's preferred energy source because they produce energy nearly twice as fast, compared to using fat for energy. This is why athletes fuel their sports performance with carbs. It is faster for the body to convert carbs to energy.

If we look at this another way, it means the body is less likely to burn fat for energy if it has the option of burning carbs instead.

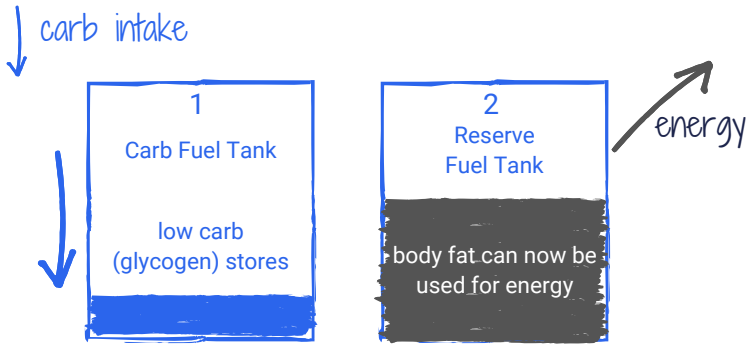


Fig. 4 Periodically reducing your carb intake allows your body the opportunity to use the fat stores for energy (fat burning).

For more effective fat burning you want to sufficiently deplete your carb stores so that your body has to look for an alternative energy source. To use fat as an energy source requires oxygen and it needs to be at a lower intensity (Fig. 4) If the exercise creates a build-up of lactic acid (burning sensation in the muscles) then it is too intense for fat oxidation to fuel it).

The amount of carbohydrates you can eat at any one meal, and over the course of a day, depends on how active you are during that particular day.

To summarise:
1. Your body prefers to use carbs for exercise energy and not fat.
2. Your body fat is a reserve energy supply that comes from eating more carbs than you can store and/or having too much fat in your diet.
3. To lose weight you need to periodically run your carb stores sufficiently low enough and do lower-intensity cardio to 'force' your body to draw on its fat stores for energy.

F.Y.I the maximum rate of energy production (in kcal/hr) when using carbohydrates exclusively is approximately twice that of when using fat exclusively. Carbs release energy 2x as fast as fat. Even though fat has over twice the energy density of carbohydrates (9 cal/gram vs. 4 cal/g).

Here's How To Become a Fat-Burning Machine

1. Exercise on an empty stomach.

Either first thing in the morning or 60 to 90 minutes after a small meal or snack that is low in carbs. Things like a low-carb protein bar, protein shake in water, or a small amount of protein food. Do not eat or drink anything containing sugars that give you the energy to exercise. Sugar-free drinks are fine.

2. Avoid eating high-carb foods in the two meals prior to your exercise.

This is because you don't want to fill up your carbohydrate fuel tank (glycogen stores) before you exercise. If you exercise after having eaten high-carb foods you will not burn much fat. Your exercise session will be fuelled by the carbs.

If you are exercising first thing in the morning, before breakfast, you need to avoid eating high-energy carbs from late afternoon (say 5 pm onwards). This includes limiting any alcoholic beverages to one or perhaps two, if any at all.

3. Make the first 30 minutes of your exercise carb depletion.

Once you have warmed up your body and are ready, you need to exercise at a high intensity with the goal of burning as much energy as possible. If you are doing weights, then do two or three exercises in quick succession before taking a rest.

I**f you are just beginning an exercise program you must consult with your doctor before commencing this or any programme.**

Some examples of carb depletion exercises:

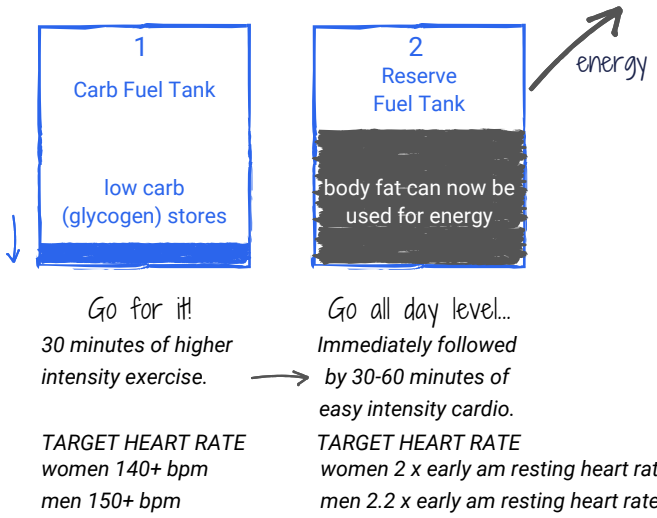
- Group fitness classes in the gym or online
- Running
- Walking up hilly streets or up and down flights of stairs
- Cardio machines (cross trainer, stepper, treadmill, elliptical, stationary bike, rower)
- Weight training with minimal rests (anaerobic exercise so by default it uses glycogen)
- Boxing training
- Basically any exercise where you can 'go for it' and burn a lot of calories

4. The next 30 minutes of exercise is your fat-burning cardio F.B.C

Having depleted the carb stores the body needs another energy source, and it can either break down muscle or it can use stored fat. To burn fat requires oxygen so your fat burning needs to be cardio (aerobic) based and not weights/resistance. This cardio must also be at a lower intensity to allow for the slower process of fatty acid oxidation to energy.

Fat-burning cardio is 'easier' intensity cardio, at an intensity that you could maintain for a couple of hours if you really had to. If you want to be more accurate it's 2 x resting heart rate for females and 2.2 x resting heart rate for males (no higher).

Fig. 5 How to structure your workouts for maximum fat burning.



The high-intensity cardio you do in the first 30 minutes of exercise is fantastic for depleting glycogen, but it is not good for burning fat. The process of breaking down a fat molecule to release energy requires sub-maximal aerobic exercise.

Therefore, the fat-burning exercise needs to be easy-intensity cardio. Examples include brisk walking or various cardio machines like the stationary bike and treadmill. Your heart rate when doing this is most important, basically, you don't want it to get too high otherwise the body may not be able to break down the fat molecule fast enough to meet the energy demands of higher-intensity cardio.

HOW TO WORK OUT YOUR IDEAL FAT BUNRING HEART RATE

From my client observations over many years, I have identified the upper heart rate levels for fat burning. Take your pulse first thing in the morning whilst still lying down. Then multiply it by 2 if female or 2.2 if male, and that's your target fat-burning heart rate. Try not to go above this heart rate. You will still burn fat at heart rates lower than this, just not at the same rate. An example is brisk walking outside won't get your heart rate as high as you might get using a cross trainer or treadmill on a small incline, but it's still effective and there are benefits to being outside.

5. Wait 45-60 minutes after exercise before next eating.

I recommend waiting 45-60 minutes after finishing your workout before eating, as you will continue to burn fat.

You can add the high-carb foods into your first meal after exercise as your fat burning is done for the day.

There you have it; a very efficient way to burn fat in your exercise sessions.
Dean