“EXERCISE AND FAT LOSS”

by Dr. Michael Colgan

If you are exercising to lose body fat, you have to be concerned you have too much of it. For many folk that much has taken years to establish. Some have solidified the same, 20, 30, 40 lbs, year after year by yo-yo dieting. It’s not easy to change a body that has got into such a state, but if you follow the rules it works like a charm.

People who don’t like rules may want to just get their head down and bull it out. Boot camps love these folk, telling them “You just have to work your butt off at our level and you will lose the fat.” The science says, “No way”. Others read some social buzz that whole neighborhoods lost masses of fat by getting together and running (biking, mud-wrestling, swimming in holes in the ice). Not going to work.

Anyone who has run a marathon, an extreme 3-4 hour effort for most of us, knows with disgust they lost negligible body fat doing it. Having measured runners in quite a few marathons, an average person well trained to run a marathon, is lucky to lose a quarter pound of fat. Some folk who stuff with carbs during a marathon, actually gain fat. They may feel like hell at the finish, and be 7 lbs lighter in water weight, because the carbs prevent water absorption from the gut, but their belly rebounds and then some within 24 hours.

One controlled study representative of the science, measured body fat losses accurately in groups of men and women over the whole 20-week training program for a half-marathon. In 20 weeks of fairly intense endurance exercise (80 workouts), the men lost an average of 5.3 lbs of fat. That’s just 4.25 ounces per week of exercise. The women lost an average of only 2.0 lbs. That is a measly 1.6 ounces of fat loss per week of exercise. (1)

This negligible loss of body fat with exercise is the usual result, and often gives folk the false belief they are different from everyone else, and just can’t get slim. Yes you can. All you need is the right nutrition and exercise. It’s not rocket science. Here are eight exercise rules to get you started on the right track. Stated briefly, with just a major reference or two, they are grounded in a lot of recent science that I will be covering in future articles. You need to follow them all to get sterling results.

**Exercise for Fat Loss - Rule 1**
Get 8 hours sleep a night. The US National Center on Sleep Disorders reports that approximately 90 million Americans currently do not get sound sleep. (2) Children sleep better, so it’s a one in three bet that you have sleep disturbance. If you are overweight, it’s 50/50 that you have poor sleep. Sound sleep is an essential physiological restorative process that programs one-third of your life, and controls much of what happens in the other two-thirds. (3) To cut to the chase, without sound sleep, you cannot effectively exercise or effectively lose body fat. Visceral fat gain, food cravings, insulin disruption, fatigue, your whole hormone cascade, the metabolic syndrome, and many other bodily
disorders are driven by disruption of your circadian rhythm. Get your sleep fixed first or you will be unable to effectively exercise or lose fat.

**Exercise for Fat Loss - Rule 2**
Exercise on waking to raise your metabolic rate for the whole day. When you wake in the morning, your metabolism is sluggish. Your metabolic rate for the day is then determined by what you do. If you have a lazy day off for example, your metabolic rate will remain low throughout, and you will be on maximum calorie retention from anything you eat. If, however, you exercise on waking, even if it is only a 30-minute walk, it raises your metabolic rate immediately. The rate then remains high for most of the day, and you lower your calorie retention from food. Get in the habit. Do that smidgeon of exercise every day.

**Exercise for Fat Loss - Rule 3**
Exercise on an empty stomach. Your body takes the easiest route to energy. If you eat before exercise, or start at the juice bar with a smoothie at the gym, your body will use the calories in your gut preferentially to using body fat for fuel. A single small “all fruit” smoothie will eliminate any weight loss effect of an hour of exercise after it. And, drinking “energy drinks” while working out is just plain dumb if you want to achieve fat loss. It’s just plain dumb for any exercise goal.

**Exercise for Fat Loss - Rule 4**
Do 20-30 minutes of light aerobic exercise before your workout. When you begin exercising, your body uses mainly sugar for fuel, the glycogen in your muscles, sugar made by gluconeogenesis in the liver, and sugar from food in your gut. (Remember, no eating before exercise) To achieve your goal of using body fat for fuel, you first have to induce hormonal changes to switch to greater fat oxidation. You can do this with light aerobic exercise for 20-30 minutes, such as walking to the gym. You cannot achieve these complex changes by lumbering on the treadmill, as I see some folk do, because, as soon as you begin to pant, signaling a shortage of oxygen, you keep the body stuck in sugar burning mode. A whole workout done with great effort, tread milling wildly, then rushing from station to station for an hour, uses near zero body fat, and exhausts you in the bargain, as it empties the muscles of glycogen. It’s tragic but somehow comical to see people doing this week after week, and losing no fat at all.

**Exercise for Fat Loss - Rule 5**
Do your workout in the “Fat Burning Zone”. There is much nonsense written about the fat burning zone, as if it’s some magical state that melts fat. It is just a range of exercise intensity where fat use (fat oxidation) settles into a high steady level. Studies have measured this range in all sorts of complex ways involving VO2max and weird and wonderful equations. It also varies somewhat with the individual, and how much exercise you do, and how often. But I can state it pretty simply.

The fat burning zone is exercise done at 60-70% of your maximum heart rate. If you run at maximum on the treadmill, and get your highest heart rate at 170 beats per minute,
then your fat burning zone is 60-70% of that score, that is, about 100-120 beats per minute. At this level of exercise you can still carry on a normal conversation.

First, do your 20-30 minute warm up in the fat burning zone to make the hormonal changes to trigger a higher proportion of fat burning. Then, for a one-hour workout on an empty stomach, keep your heart rate within the same range. Your body will then pull approximately 50% of its energy from body fat. That’s about as good as you can get. Above or below this range, your body’s use of sugar increases, and it pulls only 20-30% of its energy from body fat. So, it makes sense to wear a heart rate monitor, and set your fat burning range so that it beeps you automatically if you move out of it.

**Exercise for Fat Loss - Rule 6**

Build muscle to lose fat. All the gym programs I have seen that concentrate on aerobic exercise have been a failure for fat loss. We measured one aerobics group for a year at Frogs Gym in San Diego. All of the women in the group wanted to lose weight. They actually gained an average of 2.9 lbs of fat while doing an average of three aerobics sessions a week for 12 months.

The best form of exercise for fat loss is resistance training that adds muscle to your body. Muscle is moving tissue, fat is not. Over 100 muscles are constantly active just to keep you standing up, and about 200 are merrily using energy just to maintain their tone. Fat hangs limp like jello. Muscle is the engine that uses body fat for fuel. With more muscle, more fat is burned 24 hours a day, even just couch sitting with heavy breathing. In her book *Strong Women Stay Slim*, Miriam Nelson, a Tufts University researcher, followed a group of women who did a weight loss diet plus resistance training. They lost 44% more fat than those who followed the diet alone. So, put resistance training at the top of your list.

**Exercise for Fat Loss - Rule 7**

Do weight training that makes you taller and more flexible. We have seen it many times, especially with women. They embrace resistance training in order to lose fat, but do all the wrong stuff. Often they hire trainers who give them bodybuilding exercises, or worse, uni-planar exercises guided by machines with comfy seats, exercises that bear no relation to movements in life. They often turn the posture into a muscle-thickened crouch. Though they can achieve lower body fat because of muscle growth, the unfortunate girls look shorter and fatter.

One example I saw recently. Under a trainer’s direction, a somewhat overweight girl was vigorously doing dead lifts with a bar and two 45lb weights, 135lbs, about her own weight. Each time she lifted the bar you could see her stomach stick out. She did not realize she was training hard to grow a stuck out gut.

Also, the heavy weight was pulling her shoulders down and forward, shortening and thickening the muscle connections from the arms to the pectoralis major of the chest. It was growing round shoulders with dumpy arms, about the worst training you can think of for most women, who usually aim to be upright, slim, and elegant.
Another thing this girl didn’t realize was, if you lift your own body weight from the floor, it immediately compresses your spine and makes you temporarily about an inch shorter. Over a long period, the erector spinae muscles that hold up the spine becomes shorter from that form of training along with bulging stomach, forward-sloping shoulders, dumpy arms, and a shortened spine. Not exactly what most folk want from a weight program to lose fat.

The best resistance training for fat loss (and muscle gain) is free-movement exercises, done standing, exercises that lengthen the spine while contracting the muscles. Overhead cables like we use in the Colgan Power Program are best as they can simulate virtually any free movement in life. The Program was first developed for Olympic athletes at Colorado Springs, so you can bet it is first class for making people muscular and strong. But it also trains long, lean, flexible muscles and more than 100 different exercises in it lengthen the spine while contracting the muscles. That should be your aim, a tall, elegant, flexible body that emphasizes the low body fat you have worked so hard in the kitchen to achieve.

Exercise for Fat Loss - Rule 8
Get a mentor. You can go it alone, but a mentor adds immensely to any program for any skill. To achieve a great body you need someone who is an example, someone who has the skills, someone who can calm your wavering doubts and unerringly guide you in your quest.

In my article The Making of Genius, 2005, which has been reprinted and copied innumerable times worldwide, I analyzed the components that have produced genius in science, music, and arts. One vital component is the mentors that most geniuses had to develop them throughout their lives. These mentors were all experts in the different fields in which the individuals wanted to excel. They were all folk who had already been there, and had learned to excel at the skills.

Your goal of a great body for life is a difficult one. Most people who try fail repeatedly. You need a personal mentor.

Suggestion: Use a complete Nutritional System to fuel your body after your workouts! Dr. Colgan said the best time to bring an undenatured whey protein shake into your body is exactly 30 minutes (not 1 hour or 2 hours) after your workouts. This will assist in lean muscle development and recovery!

References:

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