

A healthy diet and a focused approach to nutrition: essential accompaniment to EMS Training with AQ8 System®.

Department of Training and Research. Lexter Microelectronic Engineering Systems. Madrid, Spain ©2017

Let's be honest: most of us come to EMS training because we want to look good, tone up, lose weight, gain muscle or reduce appearance of cellulite. With conventional training, it takes a long time, not to mention effort to achieve the results we want.

How we eat before, during, and after exercise can effect how well we perform. It's no secret that eating well can help us to train better, recover more quickly and look better.

EMS training diet needs the right balance of carbohydrates, fats, and proteins: these are even more important if we like to workout on a regular basis. If we exercise with an EMS workout, our body is working twice as hard in half the time, so keeping our energy levels up before and after a workout is vital.

Ideally, we should eat a meal containing carbohydrates 3-4 hours before exercising to increase our blood glucose and glycogen levels. For the high-level workout that EMS provides, having a small snack 1-2 hours before can also be a good idea. We'll feel full of energy and ready to put our body through its paces as we work hard to get to the fitness level we desire.

EMS is not only good for our fitness and wellbeing, but is also great for our digestion. A good workout can help eradicate digestive problems, and keeps our system working as it should.

Regular EMS workouts combined with a healthy diet will have us looking and feeling fantastic, inside and out.

1. Eat frequent small meals.

For the best results in terms of high energy level, diminished body fat, muscle growth, and good gastrointestinal health, we should be eating five to six meals per day with calories that range from 300-1,000 evidently depending upon our size and goals.

The longer we make our body wait between meals, the less efficient it becomes at burning fat and or gaining lean tissue. Long periods without eating will greatly increase our chance of overeating when we finally allow ourselves to have a meal.

2. Consume adequate proteins.

Proteins are the main building blocks of our body and like carbohydrates, each gram of protein contains 4 calories. As EMS training users we require approximately 2 grams of protein per kilogram of ideal weight per day in order to maintain our lean tissue mass.

Electro fitness users, exactly like bodybuilders or strength and endurance athletes, are in a perpetual cycle of muscle degradation and reconstruction and have even larger protein demands.

Foods such as milk, cheese, eggs, poultry, red meat, and fish are rich sources of protein. Its recommended supplementing with a quality low-carb/low-fat protein powder.

3. Understand the different types of carbohydrates.

Carbohydrates contain four calories per gram and are the main energy source for the body. When three or more 6-carbon sugar molecules are joined, the resulting molecule is known as a complex carbohydrate. One or two 6-carbon sugar molecules linked together comprises a simple sugar. Complex carbs are further sub classified into fibrous and starchy carbohydrates.

When consumed, simple sugars like sucrose and dextrose, as well as refined complex carbohydrates like white flour, provide a burst of energy which often gives way to feelings of lethargy. Typically, unrefined complex carbohydrates are assimilated by the system more slowly than simple sugars and will provide constant and sustained (though less intense) energy levels.

Generally, carbohydrates are available in slow-digesting and fast-digesting forms.

- Slow-digesting carbs include foods such as whole grain breads, vegetables, fruits and beans. These are the best kinds of carbs for us as a EMS users because they are low glycemic, meaning they provide a steady state of blood sugar over a long period of time.
- High glycemic carbs, such as white bread and sugary drinks, provide a quick, but short, boost of energy because it is easy for our body to break them down into sugars. Too many high glycemic carbs can lead to weight gain.

4. Limit sugars.

Limit sugars in favor of low glycemic index carbohydrates is crucial. The lower the glycemic index of a given carbohydrate, the more gradually it will be digested into its component parts and absorbed from the glycemic index tract into the bloodstream and less insulin is released from the pancreas over a given time in response to foods with low glycemic indices.

Hence, the body has more time to utilize the molecules for fuel rather than storing them as fat. Whole grains, legumes, pasta, and yams are among the best sources of complex carbohydrates. Processed foods such as white rice and bread, and even non processed foods like potatoes have higher glycemic indices and are assimilated at rates similar to simple sugars and are more readily stored as fat.

One major exception to this rule is fructose, the simple sugar found in fruit, which has a very low glycemic index. One thing to focus on when speaking of carbohydrates is that we need roughly a 2:1 ratio of carbs to protein in our post workout meal.

5 . Consume adequate fiber.

Because fiber cannot be digested by the human tract, it does not contribute calories and is passed as waste. It is, none-the-less, vital to good health. Inadequate dietary fiber leads to a sluggish glycemic index tract, water retention, bloating, constipation, and an increased risk of developing colon cancer.

In addition to being rich in vitamins, minerals, and antioxidants, fruits and leafy vegetables are excellent fiber sources and most references advice consuming at least five servings per day. For optimal fat burning, we should limit starchy carb consumption later in the day, eating plenty of fresh fruits and vegetables instead.

6. Eat the right fats.

Fats are important energy sources when stored glycogen is limited. Fats contain 9 calories per gram, more than twice the amount found in carbohydrates and proteins.

Saturated fats, derived from animal sources, have been shown to contribute more heavily to the development of cardiovascular disease than unsaturated fats derived from plant sources. For health reasons, fats should be limited to less than 30% of our caloric intake.

The key with fats is that we need to get the right fats. When selecting fat, we should look for anything high in Omega3 fatty acids like salmon, and or use an essential fat supplement like flax oil or fish oil.

7. Drink large amounts of water.

Most sources recommend that the active individual consume a minimum of 2 liters of water per day. Water aids the liver and kidneys in the detoxification of poisons and the elimination of wastes from the body. Without sufficient water, we become dehydrated and our organs (including muscle, liver and kidney) do not function optimally. Optimal kidney function leaves the liver free to perform maximum lypolysis, or fat burning.

In addition, Water is both an appetite suppressant and an excellent diuretic. Not only will high fluid intake increase urination, it will also decrease overall water retention and bloat. Also drinking water below our body temperature can actually help us to lose weight.

8. Hydration: aim to prevent, not quench our thirst.

Proper hydration leads to enhanced thermoregulation and increased oxygen exchange in the lungs. Simply stated, the well hydrated individual will have greater endurance and a more comfortable workout. Since we do not feel thirsty until we are already in a dehydrated state, it is best to drink water with sufficient frequency to prevent thirst.

9. Keep alcohol to a minimum.

Alcohol is not exactly classified as a nutrient, but it is widely consumed and warrants mention. Alcohol is the enemy of the dieter and the athlete. It contains 7 calories per gram, nearly as much as fat, and is completely without nutritional value. Not only does alcohol contribute empty calories, it slows the body's metabolic rate so that less calories are burned over time.

In addition, alcohol consumption leads to a transient hypoglycemic state and subsequent food cravings. Finally, alcohol is hepatotoxic and even moderate drinking leads to fatty deposits on the liver. While the liver works hard to detoxify the system of alcohol, it is less efficient at lipolysis, or fat burning.