NUTRITIONAL TIPS FOR MUSCULAR MASS HYPERTROPHY

Dan Cristian MĂNESCU [1]

Abstract

Gaining muscular mass means to stay in an anabolic state, so hypertrophy is an essential mechanism in the development of increased strength because in the most basic equation - larger muscles translate into greater strength. Theory says „good training, is simple - learn the basics and practice them consistently". The secret is little knowledge and a lot of discipline..

Keywords: *nutrition, tips, muscular mass.*

JEL classification*:* I20; I21

Introduction

Bodybuilding has climbed to the top of popularity list and has become big business. As we can see, there's a gym on every corner and a glut of diet and bodybuilding formulas to pack on muscle and burn off the fat. Competition is fierce, the promises are bizarre and we're all confused, suspicious and eventually numb. We have on our hands a million ways to diet, feed ourselves and live our lives for fitness. Nevermind which way we are choosing some nutritional tips should be known.

In our days of complex nutrition supplementation, seems that the basics of sport nutrition have been forgotten. Gaining muscular mass means to stay in an anabolic state, so hypertrophy is an essential mechanism in the development of increased strength because in the most basic equation - larger muscles translate into greater strength.

The easiest way to ensure an anabolic response to resistance training is through a proper and consistent scheduling of nutritionally balanced meals. For this it's necesary to remember some basics of nutrion

Content

There are 3 macronutrients that the human body needs in order to function properly: carbohydrates, proteins and fats.

Carbohydrates - are the body's main source of energy. When carbohydrates are ingested pancreas releases a hormone called insulin. Insulin is very important

[1] The Bucharest University of Economic Studies, ctln_manescu@yahoo.com

because: it grabs the carbohydrates and either stores them in the muscle or stores them as fat. It grabs the amino acids (protein) and shelters them inside the muscle cell for recovery and repair.

Most people that are overweight and are in low fat/high carbohydrate diets got into that condition because they are eating an overabundance of carbohydrates. Too many carbohydrates cause a huge release of insulin. When there is too much insulin in the body, the body turns into a fat storing machine. Therefore, it is important to eat no more carbohydrates than necessary but the right amount of carbohydrates.

Carbohydrates are divided into complex carbohydrates and simple carbohydrates. The complex carbohydrates give the sustained energy ("timed release") while the simple carbohydrates gives the immediate energy. It is recommended to eat mainly complex carbohydrates throughout the day except after the workout when the body needs simple carbohydrates in order to replenish its glycogen levels immediately, something that will aid faster recuperation and rebuild of the muscle. Below is a list of good sources of carbohydrates:

Complex Carbohydrates:

Starchy	**Fibrous:**
Oatmeal	Broccoli
Sweet potatoes	Carrots
Potatoes	Green beans
Rice	Mushrooms
Pasta	Spinach
Corn	Zucchini
Peas	Letucce

Simple Carbohydrates:

Apples
Bananas
Grapefruit
Grapes
Oranges
Pears
Pineapple

Protein - every tissue in body is made up from protein (muscle, hair, skin, nails). Proteins are the building blocks of muscle tissue. Without it, building muscle and burning fat efficiently would be impossible. Its importance is huge. Protein also helps to increase the metabolism rate with 20% everytime when we eat. It also makes the carbohydrates timed release, so we can get sustained energy throughout the day.

Theory says that everybody involved in a weight training program should consume between 1 gram of protein to 1.5 grams of protein per kg of lean body mass (meaning that a 100 kg person, having 10% body fat, should consume at least 90 g of protein since the lean body mass = 90 kg). Nobody should consume more than 1.5 grams per kg of lean body mass as this is unnecessary, because the extra protein may get turned into fat (Mănescu, C.O., 2010).

Good sources of protein are eggs (white part), chicken breast (cooked, skinless and boneless), turkey (cooked, skinless and boneless), lean (90% lean) red meats, and tuna fish. Each serving size equals approximately 35-40 grams of protein.

Fats - all the cells in the body have some fat in them. Hormones are manufactured from fats. Also fats lubricate the joints. So elimination of the fat from diet means that hormonal production will go down and a whole array of chemical reactions will be interrupted. The body will then start accumulating more body fat than usual, so that it has enough fat to keep on functioning. Since testosterone production is halted, so is muscle building. Therefore, in order to have an efficient metabolism the body need fat.

There are three types of fats:
Saturated fats - they are associated with heart disease and high cholesterol levels. They are found to a large extent in products of animal origin. However, some vegetable fats are altered in a way that increases the amount of saturated fats in them by a chemical process known as hydrogenation. Hydrogenated vegetable oils are generally found in packaged foods. In addition, cocunut oil, palm oil, and palm kernel oil, which are also frequently used in packaged foods and non-dairy creamers are also highly saturated.

Polyunsaturated fats - fats that do not have an effect in cholesterol levels. Most of the fats in vegetable oils, such as corn, cottonseed, safflower, soybean, and sunflower oil are polyunsaturated.

Monounsaturated fats - fats that have a positive effect on the good cholesterol levels. These fats are usually high on the essential fatty acids and may have antioxidant properties. Sources of these fats are Fish Oils, Virgin Olive Oil, Canola Oil, and Flaxseed Oil. Usually these type of fats are called as good fats.

Twenty percent of the calories should come from good fats. Any less than 20% and the hormonal production goes down. Any more than 20% and start accumulating plenty of fat. Good sources of fat are canola oil (1 tablespoon), natural peanut butter (2 tablespoons), olive oil (1 tablespoon), flaxseed oil (1 tablespoon), and fish oils (1 tablespoon). Each serving size contains approximately 14 grams of fat.

Water - is by far the most abundant substance in the body. Without water, an organism would not survive very long. Most people who dosn't know how to get in

shape almost always underestimate the value of water. Water is good for the following reasons: over 65% of the body is composed of water (most of the muscle cell is water).Water cleanses the body from toxins and pollutants that would harm the health. Water is needed for all of the complex chemical reactions that the body needs to perform on a daily basis. Processes such as energy production, muscle building, and fat burning require water. A lack of water would interrupt all of these processes.Water helps lubricate the joints. When the outside temperature is up, water serves as a coolant to bring the body temperature down to where it is supposed to be. Water helps control the appetite. Sometimes when hungry sensation apear after a good meal this sensation indicates a lack of water. Drinking water at that time would take the craving away. Cold water increases the metabolism.

Theory says „good nutrition, like good training, is simple - learn the basics and practice them consistently". The secret is little knowledge and a lot of discipline.

Health and fitness has climbed to the top of popularity list and has become big business. As we can see, there's a gym on every corner and a glut of diet and bodybuilding formulas to pack on muscle and burn off fat. Competition is fierce, the promises are bizarre and we're all confused, suspicious and eventually numb. We have on our hands a million ways to diet, feed ourselves and live our lives for fitness. Nevermind which way we are choosing some simple rules should be respected:

Conclusions and recomandations

Too much fats, excessive salt and simple sugars should stay away. This means to eliminates 99% of the fast foods, munchies and soft drinks. It's a must to have a basic breakfast of complete carbohydrates and protein to set up the metabolism for the day and to provide fuel and muscle building ingredients. Basically, protein builds muscle and carbohydrate supplies fuel for energy. Breakfast can be an easy to prepare meal from a quality protein shake to a bowl of oatmeal, scoop of cottage cheese, fruit and coffee. Without this the body will draw on the muscle tissue as a source of energy, creating a muscle deficit. A good vitamin and mineralformula added each morning will put order and efficiency in the body chemistry. With whatever effort it takes, it's a must to eat every 3 to 4 hours throughout the day - each meal consisting again of protein and carbohydrate. Any combination of the following is perfect: tuna/rice, lean meat/baked potato, cottage cheese and fruit, chicken/pasta, etc. (Vegetarians - take particular care in order to get plenty of protein in the diet).

In simple words, to gain weight means to eat more and more often, being ready for solid bulk weight - lean muscle comes slowly but surely. To lose weight, eat less, still as often, consuming the majority of the calories early in the day.

Protein must be emphasized because a higher intake of protein over carbohydrate will build a lean body. Between meals snacking is good if the snack is truly nutritious - no junk food! Shouldn't be allowed to become a substitute for a meal, or a habit. Good snacks are fruits or vegetables, low fat muffins, protein energy bars, nonfat yogurt, whole wheat bagels, cottage cheese, etc.

Simple carbohydrates (sugar and honey) provide a quick pickup but all goes down just a quickly. Excessive sugar plays bad with the insulin metabolism and leads to fatigue and fat storage. So is not good.

Fuel before workout can be a small easily digested meal 30-60 minutes before the training session. Complex carbohydrates insinde system will bring harder training, longer and with enthusiastic. This will also block the experience of low blood sugar jitters or dizziness, but will bring experience a great muscle pump. After a long day's work, protein shakes and BCAA's are the kings. It's also a good time to restock the creatine stores. Similarly, it's a must to eat a hearty protein meal with plenty of carbs within 60-90 minutes of completion the workout. This is necessary to provide the muscle building materials to repair depleted tissue and begin the process of building new muscle.

The most important nutrient in the body is plain water. The quality of the tissues, their performance and their resistance to injury is absolutely dependent on the quality and quantity of the used water. Flooding the body throughout the day, especially during the workout, it's a must.

Sleep, rest and relaxation are of prime importance, because help the bodies to recuperate and to build muscle tissue.

REFERENCES

1. Anderson, M.K., Hall, S.J., Martin, M. (2005). *Foundation of Athletic Training: Prevention,* Assessment and Management. Philadelphis
2. Bompa, T., (2001). *Theory and methodology of training*. Ex Ponto Publishing
3. Manescu, C.O. (2010). *Suplimente nutritionale si doping in sport*. Ed. ASE
4. Manescu, C.O., (2013). *Culturism – caiet de lucrari practice pentru studentii anului 1*. Ed. Printech
5. Weider, J., (1991). *Joe Weider's Mr. Olympia Training Encyclopedia*. McGraw-Hill Publishing