



LONDRA 2012

Evgeny Korotyshkin
Silver medal in the 100 m butterfly

Thank you Syform

**SPECIAL SWIMMING
DIETARY SUPPLEMENTS
MADE IN ITALY**

SYFORM

SWIMMING AND NUTRITION

SWIMMING is a sport characterized by a medium-high energy expenditure.

Depending on the level of intensity which it is practiced, the calorie consumption varies between 10:25 kcal/ minute, on average 600 kcal/ hour; so it is lower than that of a runner or a cyclist.

The better the technical quality of the swimmer, the lower its energy expenditure.

As the speed swimming front crawl, backstroke and butterfly increases, the calorie consumption rises exponentially, while in a more linear way swimming breaststroke.

Women have a higher floating thanks to the greater percentage of body fat and for this reason they consume up to 30% less calories than men.

The chart below shows the amount of burned calories in 60 minutes of continuous swimming by a woman of 50 kg and a man of 70 kg.

CALORIE CONSUMPTION

STYLE	WOMAN of 50 KG	MAN of 70 KG
BACKSTROKE	528 kcal/h	739 kcal/h
BREASTSTROKE	508 kcal/h	711 kcal/h
FREESTYLE	508 kcal/h	684 kcal/h

The muscle mass of a swimmer, although it is not so decisive as in other sports, has however an important meaning. The muscles of the swimmer do not appear bulky and defined as those of a hundred-metre sprinter or a gymnast, but they are well-outlined, soft, elastic and tapered. That is exactly why the maximum oxygen consumption of the swimmer is on average lower than that of a runner or a cyclist.

Swimming is an "aerobic-anaerobic" mixed sport, in which the energy requirement is mainly met by **carbohydrate** and **lipid**.

The greater the intensity of the workout, the greater the demand for carbohydrate. The dietary carbohydrate are made up by complex starches (pasta, rice, potatoes, cereals ...) at gradual release of energy, and by simple sugars (eg. Fructose and glucose in honey, fruit ..) at immediate release of energy, that are defined with high glycemic index. In the diet of the swimmer, carbohydrate must be taken regularly, both during meals and during the training sessions.

The human body has a limited reserve of carbohydrate (about 300-500 g that correspond to 1200-1600 Kcal) that are deposited in the liver and muscles as glycogen after the intake of foods rich in starch. It is important, in particular, favoring complex carbohydrate from pasta and brown rice, or maltodextrin from corn. This type of sugar ensures a greater stability of the blood glucose and a constant supply of energy. Simple sugars, glucose and sucrose, provide immediate energy but of short duration. A possible condition of weakness, fatigue, hypotension and/or hunger crisis follows in fact the initial flare energy. Simple sugars are preferred only in situations of "crisis" and after the exercise, for a quick reinstatement of glycogen stores.



However the large commitment of the swimmer's muscle mass also requires a high attention to the assumption of **PROTEIN FOODS**, able to specifically support the efficiency of the muscle tissues and of the endocrine-immune system. Protein play a structural and critical role for the athlete, because they play a plastic role: they are indispensable to the maintenance and growth of the muscle mass. During prolonged exercises, they also contribute to meet the energy need, turning into sugars, and they maintain the efficiency of the immune, endocrine, nervous and digestive systems.

The protein-amino acidic nutrition can't be underestimated, especially in the specialties of short duration and higher intensity (100, 200, 400 m). In these "explosive" disciplines a special benefit can be given by the intake of creatine, in particular the citrate creatine, the most soluble and bioavailable for the muscles.

The protein requirement of a swimmer is on average 1.2-1.5 g/ kg of the body weight, to be adapted according to the size of the training and the physical individual characteristics.

It is scientifically established that animal protein have a higher nutrient efficiency than vegetable protein. The first are in fact complete and rich in all essential amino acid, the latter (especially cereals) lack in some of them. The noble food sources of protein are milk and dairy products, eggs, meat, fish.

Each day, the body destroys and rebuilds protein (turnover) to ensure a perfect physical efficiency. As in the human body there is no reserve of protein, with the nutrition we have to introduce them in a certain quota every day. Equally important is to distribute their intake throughout the day, through the three main meals and some snacks.



Even **FAT** play an important role from the energy point of view. In particular, unsaturated (linoleic acid, Omega 3) and short-chain fatty acid, contained in the oils and oilseeds fruits, are quickly utilized by the muscle during the exercise, at medium intensities.

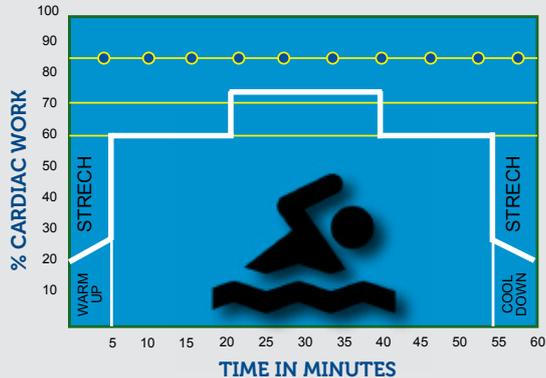
BALANCED NUTRITION



Several studies confirm that a balanced diet, extended over a long period and on a daily basis, is able to create physiological modifications that are highly positive for the athlete, in particular for the increase of strength and muscle mass. Similarly, the improvement of the training capacity significantly reduces traumas.



DIAGRAM: Ratio between intensity of effort and energy sources



VO2 max > 85% : ANAEROBIC = CARBOHYDRATE 100%

VO2 max between 60 and 85% : mixed aerobic-anaerobic = CARBOHYDRATE 70%+FAT 30%

VO2 max < 60% : AEROBIC = FAT 70%+CARBOHYDRATE 30%

The diagram shows how the type of energy used varies according to the different exercise intensity. During the high stress (> 85%) energy is mainly supplied by the oxidation of carbohydrate, while when the intensity is less than 60% it is almost exclusively supplied by fat. Therefore, depending on the type of training to deal with, the approach with food and integration will have necessarily to change. During a high workload, we recommend using a supplement containing carbohydrate at different speed of assimilation (X- PLOSIV or REISPRINT) to be used in short intervals and small sips. It is also particularly important that the concentration of the drink does not exceed 6% (30 g powder / 500 ml), to favor a fast gastric emptying and a rapid availability of energy.

NUTRITIONAL ADVICES FOR A SWIMMER

An adequate diet allow to face the trainings with the right physical and mental balance.

Here are some useful tips:

1. Pay extreme attention to the food's origin, preparation, storage and method of cooking. It is better to consume fresh foods and simple dishes.
2. Do not exceed in caloric introduction by controlling the percentage of body fat, avoiding in this way the increase in fat deposits. The amount of calories to be taken is individual and it is related to variable factors, such as the physique, age, sex, metabolism. Women, in particular, have a caloric requirement of about 20% less than men.
3. Divide the daily caloric intake into the meals (4-6). This approach maintains a good basic metabolism.
4. Close to the training, you should avoid taking a full meal and especially protein foods; rather it is recommended to eat foods based on complex carbohydrate (2-3 hours before), favoring the intake of protein in the post workout.
5. After an intense sport activity, as well as restoring as soon as possible the energy reserves, it is necessary to favor the elimination of the toxins accumulated during the effort and to replenish water and minerals.

ANABOLISMO e CATABOLISMO

During long and intense training sessions, the muscle undergoes **CATABOLISM** ("burns" itself); within the following hours instead the **ANABOLISM** replaces it (the better the training, the more effective the muscle rebuilding). This phase is favored when are taken amino acid, in particular branched-chain and glutamine, which stimulate the protein synthesis and therefore the growth.

After an intense workout in the pool, muscles start a process to repair the damage caused by the training and to replenish the glycogen stores: the endocrine and nervous systems are particularly active.

In this phase, the nutrition and the supplementation are essential to promote the recovery. You should take simple carbohydrate, that are quickly assimilated, such as glucose and sucrose, and rapidly to assimilate protein.

The ideal would be to assume a specific sport drink 5-10 minutes after the coming out of water.

WHY SUPPLEMENTS?

Swimming is a sport characterized by a medium-high plastic energy expenditure, that the typical nutrition is not always able to meet in time of need.

The foods slow down the digestive system, they are complex and contain waste that can disturb the training and the competition and they should be taken in large quantities to provide the ideal dosage of vitamins, minerals, antioxidants that are so important in the preparation of the swimmer. Physical activity and frequent workouts cause a high consumption of sugar, water and minerals, and an increase in oxidative stress with the consequent production of free radicals.

Foods alone are not always able to compensate these needs, as not available in a quickly assimilable form. For this reason, the athlete can resort , in a highly focused way, to natural food supplements, able to quickly rebalance the functions and nutritional losses which the body goes towards during exercise. Dietary supplements should not be confused neither with drugs nor with doping products. However, they must be chosen carefully and according to the actual physical needs. Dietary supplementation, in fact, if it is properly used and customized according to individual needs, together with the will, spirit of self-sacrifice and hard training, is an excellent resource to sustain the performance.

SYFORM SUPPLEMENTS

Syform provides the swimmer a complete line of specific supplements, particularly technical, based on nutrients of high quality and in effective formulations to support the maximum performance during trainings and competitions.

We selected them for you, in relation to their nutritional meaning, dividing them into four categories according to the following diagram. Contact our experts, through the website, or request more information via email.



PRODUCT LINES



PROTEIN=STRUCTURE



AMINO ACID=STRENGTH



CARBOHYDRATE=ENERGY



MICRONUTRIENTS

QUALITY CREATION

Creation of formulas with active ingredients, well-supported by clinical studies

Use of registered trademark raw materials or with production patents



Selection of vegetable extracts obtained with innovative extraction methods

Not subjected to radiation raw materials, GMO free, BSE free, gluten free, sugar free and preservative free

Use of vegetable capsules Vegicaps®, time-release tablets, film coated and gastro-resistant

Selection of certified production laboratories

Microbiological, organoleptic and nutritional compliance certificate



STRUCTURE & STRENGTH

Products belonging to this section are particularly suited to promote and increase the efficiency of the muscle mass, essential for a perfect shape in general. The protein of milk powder are particularly useful to enrich breakfast, make nutritious snacks between meals, and if it's necessary to replace protein foods.

BALANCE

MILK PROTEIN - RETARD ACTION + TONE + LEAN BODY MASS



Casein milk protein and isolated whey protein, rich in essential amino acid, gradually absorbed, "retard." Balance is ideal for strengthening the muscles, to support heavy workloads and improve elasticity, tone and muscle force. Highly soluble and digestible, it is suitable to enrich nutritious snacks.

NUTRISOY

SOY PROTEIN



Isolated soy protein **Supro®** for those who are allergic to milk protein. It promotes an increase in strength, endurance and muscle volume. It tones up the tissues and stimulates the immune system. It's highly and rapidly assimilable.



FRIRAM

MUSCULAR STRENGTH

Supplement of **Kyowa** BCAA, among the most qualitative in the world. Essential throughout the year to ensure maximum efficiency and energy to the muscle. The amino acid spare muscle mass, promote the recovery, but are also strongly anti-fatigue and energetic. Ideal during competitions and sessions of intense training.



CITROFOS

ENERGY AND POWER EXPLOSION

Supplement of **citrate creatine Creapure®** in single-dose sachet, the most soluble, assimilable and effective for the swimmer. It does not produce water retention. Creatine becomes a valuable reserve of explosive energy if it is of high quality and it's taken in the correct doses, as prescribed below.



SYNERGY

ENERGY FROM AMINO ACID

Supplement of glucogenetic amino acid (glucose manufacturers) which are particularly important in promoting the availability of energy during the intense and prolonged exercise, and in accelerating the recovery at the end of it.

ENERGY & ENDURANCE



CARBO SPEED

INNOVATIVE ENERGY OF VITARGO®

It contains traditional maltodextrins, isomaltulose and **Vitargo®**, a revolutionary maltodextrin from corn that is specifically designed to meet the energy requirement of athletes subjected to aerobic sports of at least 1 hour.

Vitargo®



VO2

BEE T RED AND NITRATE

VO2® aerobic is an innovative energy supplement based on complex carbohydrate red beet and arginine, able to improve the oxygenation of the muscles and supply them constantly energy, Enhances the production of nitric oxide. Ideal for training and pre-race.



REISPRINT

ENERGY AND MINERALS

Hypotonic saline energy supplement in powder form. It contains sugars at different speeds of absorption for a short, medium and long energy response, and also minerals of magnesium and potassium. Taurine has a stimulating action from the nervous point of view. Ideal for training and competition.



X-PLOSIV gel

IMMEDIATE ENERGY

Concentration of carbohydrate and magnesium. With maltodextrin, glucose and dextrose: more than 60% of carbohydrate. Magnesium is useful for combating cramps and fatigue post workout. The extract of red vine improves muscle oxygenation during exercise and counteracts the oxidation.



FINAL RACE gel

ENERGY FOR THE FINAL SPRINT

Gel energy single-dose suitable for training periods particularly intense. Reduces fatigue, helps improving athletic performance and promotes rapid recovery of the ability to snap at the end of the training. It contains 3 g of **Fructose 1-6 diphosphate**, Acetyl-Carnitine, beta-Alanine e magnesium.

RECOVERY

Products belonging to this section are specific to allow the swimmer to overcome the most difficult moments of the season, in which regularly occurs a significant decrease in performance, you get sick easily, do not push your legs and short of breath. In the presence of these signals is appropriate to intervene integrating some essential nutrients to promote optimal recovery of energy and efficiency.



COMPETITION

POWER, ENDURANCE, RECOVERY

Concentration of carbohydrate at different speeds of absorption, amino acid, minerals and antioxidant factors. It is a complete formula to deal with a prolonged effort and to facilitate the recovery post workout. It gives energy, saves muscles and promotes the recovery.

It is also available in convenient single-dose sachet!



GL3

RECOVERY

Supplement of 3 different types of glutamine, an important amino acid to facilitate the recovery of plastic muscle after prolonged exercise. He also disintoxicante action and is very effective to support the immune system, particularly weakened by an intense workout.

SPECIFIC SUPPLEMENTATION



EFA BLU CARDIOVASCULAR PROTECTION

Supplement highly qualitative and concentrated up to 72% in **Omega 3** fatty acids, obtained by triple distillation from fish blue. Contains 40% EPA and 20% DHA. Promotes cardiovascular function.



EMAFOL HIGHLY BIOAVAILABLE IRON

Supplement of iron, an extremely beneficial mineral for the athlete, and hard to be orally assimilated. It contains lactoferrin, a special whey protein that significantly increases the absorption of iron, together with pyrophosphate iron **Sunactive®**, Vitamin C, B12 and folic acid.



MULTIVITAMIN 27 MICRONUTRIENTS

Natural supplement, complete in vitamins, minerals and microelements. It also contains a number of micronutrients and extracts from fruits and vegetables with antioxidant activity. Ideal in case of malnutrition, fatigue, strong physical or work commitment.



SMARTY vial and Shot CHARGE AND GRIT

A concentration of substances that promote the highest nervous charge and concentration. It can lower the threshold of fatigue, improve the immune response and reactivity.



ALKALIN COUNTERACT THE LACTIC ACID

It restores the reserves of alkalizing minerals, neutralizes the excessive acidosis and recovers an optimum physical efficiency. Alkaline is ideal for endurance athletes during exercise or competition and to promote recovery for those who are subjected to severe stress and overwork. It improves the intake of creatine.



NOSENEX NATURAL ANTIOXIDANTS

Concentration of the latest generation of antioxidant micronutrients, made entirely of plant derivatives. Antioxidants are substances which play the most important role of safeguarding the health against any element capable of producing a cellular damage, which eg. the exercise. With **Goji**, **Resveratrol** and **Green Tea**.



DEPATIC

THE LIVER IS YOUR ENGINE

It is a formulation based on plant extracts (silymarin and desmodium), effective in purifying the liver. The liver is one of the main organs that produce hemoglobin, it's a reserve of iron and the main detoxifying organ of the body. Its perfect functionality is essential for the optimal fitness of the athlete.



NOLATTICO

COUNTERACT LACTIC ACID

Favors the increase of carnosine, a substance that counteracts the excessive muscular acidosis and accumulation of free radicals. Nolattico is ideal in the working phase lattacido, to facilitate the recovery and to support very intense efforts.



TRIBOSID

VITAMINS, MINERALS AND MICRONUTRIENTS

Supplement based on plant extracts with tonic-energizing action, such as Tribulus, Suma, Maca and Gynostemma. It is indicated for people who want to promote in a totally natural way the increase of muscle protein synthesis, tone, energy and endurance.

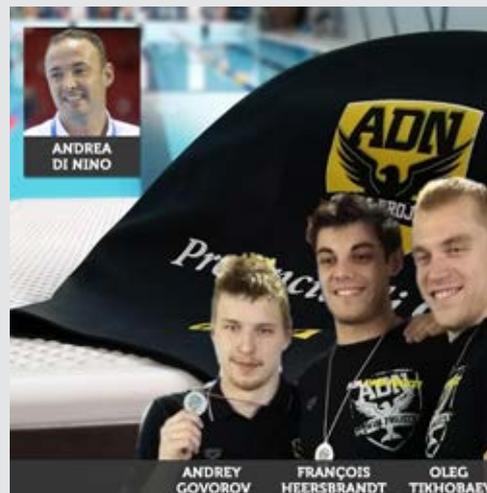
SYFORM SWIMMERS

Syform is the official supplier of the athletes of the **Team ADN Swim Project**, an Italian project created by Andrea Di Nino, one of the most prestigious international coaches. ADN includes world-leading international champions. During the past four years ADN has won over 30 prestigious medals, including an olympic silver and bronze.

Among the great champions ADN we remember:

- **JASON DUNFORD**
- **SERGEY FESIKOV**
- **BRUNO FRATUS**
- **EVGENY KOROTYSHKIN**
- **ANDREY GOVOROV**
- **VAN MIERLO**

ADN Swim Project with the **Positive to Health project** promotes the protection of the athletes' health, the prevention and the fight against doping.



SUPPLEMENTATION PLANS



DRY STRENGTHENING IN THE GYM

FOR 3 MONTHS

BREAKFAST 10 MIN. BEFORE	CITROFOS* 1 sachet in 150 ml of water TRIBOSID 2 tablet
DURING	BALANCE 2 scoops in 200 ml of water or low-fat milk
LUNCH BEFORE	TRIBOSID 2 tablet
TRAINING DURING	CARBO SPEED** 2 scoops dissolved in 250 ml of water
30 MIN. AFTER	BALANCE 2 scoops in 200 ml of water CARBO SPEED 2 scoops dissolved in 250 ml of water FRIRAM 5-8 tablet

* **CITROFOS** use it for cycles of 30 days, alternating with 30-day stop.

** **CARBO SPEED** use it only if you need energy to train and there are no problems of overweight..



LACTACID TRAINING ONLY FOR LACTACID WORKING DAYS

FOR 3 MONTHS

BREAKFAST 10 MIN. BEFORE	CITROFOS* 1 sachet in 150 ml of water
DURING	BALANCE 2 scoops in 200 ml of water or low-fat milk
TRAINING 30-40 MIN. BEFORE	NOLATTICO 2 scoops dissolved in 500 ml of water
DURING	REISPRINT** 1,5 scoops or 1 sachet in 500 ml of water
30 MIN. AFTER	BALANCE 2 scoops CARBO SPEED 2 scoops both dissolved in 300 ml of water FRIRAM 5-8 tablet
BEFORE BEDTIME	GL3 1 sachet ALKALIN 1 sachet both dissolved in 200 mg of water

* **CITROFOS** use it for cycles of 30 days, alternating with 30-day stop.

** **REISPRINT** use it only if you need energy to train and there are no problems of overweight..

SUPPLEMENTATION PLANS



AEROBIC TRAINING

< 1 HOUR AND A HALF

BREAKFAST
DURING

BALANCE

2 scoops in 200 ml of water or low-fat milk

TRAINING
DURING

VO2 aerobic

2 scoops dissolved in 500 ml of water to consume half 30 min. before, half during training

20 MIN. AFTER

CARBO SPEED

2 scoops dissolved in 500 ml of water

> 1 HOUR AND A HALF

BREAKFAST
DURING

BALANCE

2 scoops in 200 ml of water or low-fat milk

TRAINING
DURING

COMPETITION

2 scoops dissolved in 500 ml of water to consume half 30 min. before, half during training

20 MIN. AFTER

BALANCE 2 scoops
CARBO SPEED 2 scoops

both dissolved in 300 ml of water



TAPERING

BREAKFAST
DURING

BALANCE

2 scoops in 200 ml water or low-fat milk

LUNCH
DURING

DEPATIC 1 capsule
NOSENEX 1 tablet

TRAINING
DURING

CARBO SPEED

2 scoops dissolved in 500 ml of water to consume half 30 min. before, half during training
SYNERGY 5 tablet

20 MIN. AFTER

CARBO SPEED

2 scoops dissolved in 500 ml of water

DINNER
DURING

DEPATIC 1 capsule
NOSENEX 1 tablet

BEFORE BEDTIME

ALKALIN 1 sachet in 150 ml of water

SUPPLEMENTATION PLANS



COMPETITION

BREAKFAST
10 MIN. BEFORE

CITROFOS*
1 sachet in 150 ml of water

COMPETITION
2 HOURS BEFORE
40 MIN. BEFORE
20 MIN. BEFORE
20 MIN. AFTER

NOLATTICO 1 scoop in little water
SMARTY 1 vial
X-PLOSIV 1 single-dose in 200 ml of water
GL3 1 sachet

BEFORE BEDTIME

ALKALIN 1 sachet in 150 ml of water

* **CITROFOS** it should be taken for the whole week before the competition, only by athletes involved in short specialties, up to 200 m.

WARNING:

The supplementation plans that are illustrated in this guide are purely suggestive.

The first factor that has to be analyzed is the individual variability of response. The trainer and the athlete, in concert must constantly monitor the feelings that the training produces, in order to correct any negative symptoms (eg. fatigue, muscular acidosis, difficulty of recovery or properly resting), also using a supplementation plan that is different from the one proposed.

In this guide there is only a part of the wide range of Syform supplements.

You can download the complete catalogue at www.syform.com



SPECIFIC SUPPLEMENTATION

PHYSICAL DISORDER

RECCOMENDED PRODUCT

IRON-DEFICIENCY ANEMIA

EMAFOL

DEFICIENCY MULTIVITAMIN

MULTIVITAMIN

STRESS FROM OVERWORKING

NOSENEX

ARTICULARY INFLAMMATION

**EFA BLU
ARTICOL**

MUSCLE CRAMPS

MAGNESIO 3



SYFORM

SYFORM QUALITY

In a rather delicate and complex market situation, in the maze of tens of thousands commercialized supplements, Syform continues to base its philosophy on the concept of **Quality**, understood as a guarantee of the correspondence between the content of the product and what declared on the label, maintaining the security and healthiness of the same.

The quality of the product is always the first and most valid guarantee of competitiveness.

It is necessary, however, that the end user is informed of this in order to be able to freely choose the product that he consider most suitable for his needs, in relation to the selling price.

For this reason, we are beginning to make available to our resellers, specific technical information about Syform supplements.

In our opinion, we believe that this is the only way liable, today and in the future, to appreciate the important functionality of the dietary supplement.

In this way we aim also to protect our business partners and their professionalism.

TROVA FIND SYFORM SUPPLEMENTS IN:

- **CHEMIST'S AND PARAPHARMACY**
- **THE BEST SPECIALIZED SHOPS**

Stay tuned



SYFORM SERVICES

1) THE EXPERT ANSWERS

In the "LIVE" section on syform.com, you can have free access to our experts' answers to general questions on Syform supplements.

2) NUTRITIONAL ADVICE

In the "LIVE" section you may directly contact our experts to receive a customized nutritional advice service. This is a chargeable service.

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