

ROLE OF NUTRITION IN SPORT

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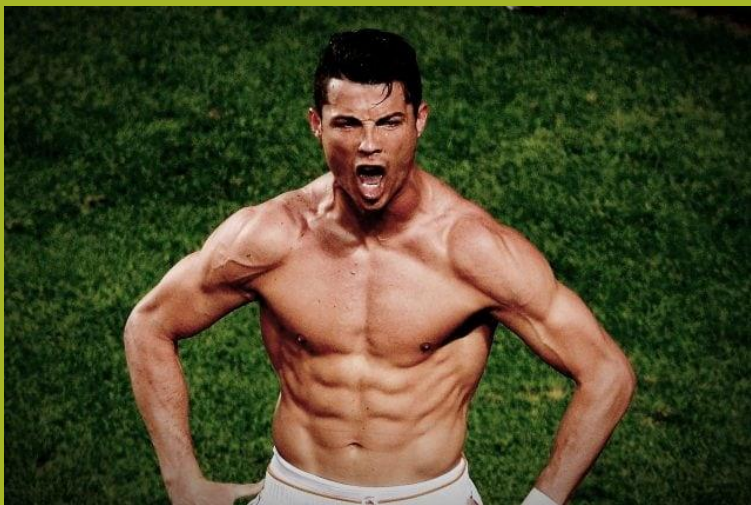


daylesford
ORGANIC FARM GLOUCESTERSHIRE

The logo for Daylesford Organic Farm Gloucestershire is displayed within a white rectangular box. It features the brand name 'daylesford' in a dark brown, elegant script font, with the words 'ORGANIC FARM GLOUCESTERSHIRE' in a smaller, dark brown, all-caps sans-serif font positioned directly below it.

“Good food choices don't make up a mediocre athlete a champion, but wrong foods choices can prevent the possible champion to realize his / her maximum potential ”[Ron Maughan]

RONALDO VS ADRIANO



36 years old



30 years old

LEBRON JAMES



19 Years Old

20.9 points
5.5 rebounds
5.9 assists
1.6 steals



36 Years Old

25.8 points
8.1 rebounds
8.0 assists
1.1 steals

NUTRITIONAL FACTORS THAT INFLUENCE SPORT PERFORMANCES



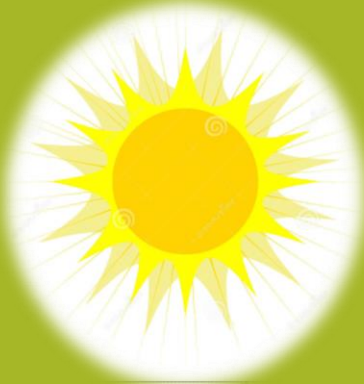
Carbohydrates



Energy
Balance



Proteins



Minerals &
Vitamins
supplements



Sleep



Gut



ENERGY BALANCE

It is the balance of calories consumed through eating and drinking compared to calories burned through physical activity.

- Foods
- Drinks
- Supplements



- Basal metabolic rate (BMR).
- Digestion
- Physical activity

- Age
- Sex
- Muscle mass
- Genetic factors



ENERGY BALANCE



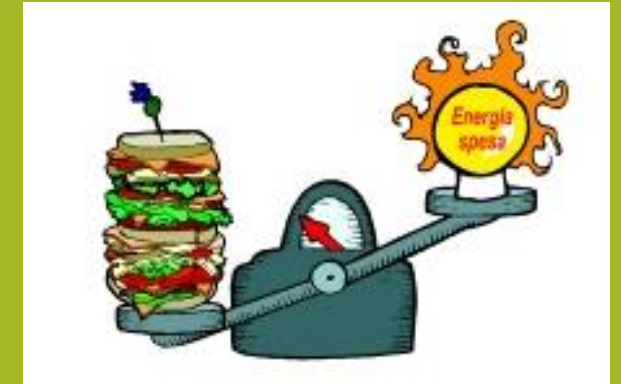
Negative balance

- Lack of energy.
- Risk of nutrients deficiencies.
- Used for some athletes that have to be in a restricted weight (boxers).



Balance = 0

Optimal conditions
in most of the
sports.



Positive balance

- Gain of weight (mostly fat).
- Good for some athletes that are underweight.



CARBOHYDRATES INTAKE

Carbohydrate are the most important energy source in almost all sports. In our body they are stored in our blood (Glycaemia) , liver and muscles (as glycogen, the most used during sport activity). The storage of carbohydrates in our body is limited so it is important to have a constant intake of this nutrient without exceed the amount.

Complex carbohydrates



Wholemeal pasta, bread, rice, quinoa ext. are the best carbohydrates sources. They should be used before and after a sport event.

Simple sugars



Simple sugars have an high impact in our glycaemic response, causing a fake felling of satiety and fat mass synthesis.



TIMING OF CARBOHYDRATES INTAKE

Days before the events



It is important to increase gradually the carbohydrates intake.

Hours before the events



The pre-event meals should be served few hours in advance and reach of complex carbohydrates.

During the events

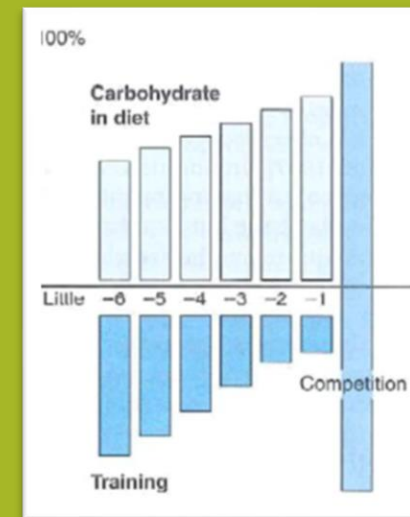


For sport events longer than 30 minutes, the consumption of sport drinks is advised to avoid drops in the glycaemic.

After the events



Recovery is very important, a snack in the first 30 minutes helps glycogen synthesis.





PROTEIN'S INTAKE

Proteins are like the " building blocks " of our body, especially our muscles, but they can also be used as a form of energy. The ideal quantity to consume them daily is linked to the body weight of a single individual and his physical activity; the higher they are, the higher the need for protein.

Sedentary people 0,8 g per kg/day.

Athletes 1,2-1,4g per kg/day.

Professional Athletes 1,6-1,7 g per kg/day.

Proteins from, vegetable sources, have a lower amounts of essential ammino acids and the presence of elements that may block their absorption. For people, who have a vegan diet, is advised to increase the protein intake of 10/15%.





ANIMAL PROTEIN SOURCES

food sources	proteins per 100g
lean chicken breast	32.1
lean pork chops	31.0
tuna	29.9
beef steak	28.7
salmon	27.3
parmesan grated	35.8
eggs	12.2
yogurt no fats	5.7

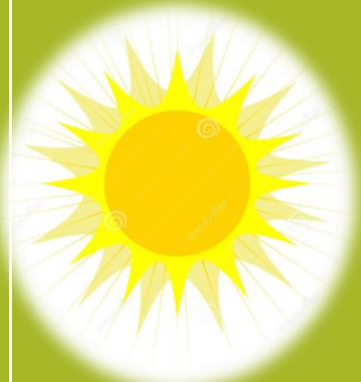




PROTEIN VEGETABLE SOURCES

food sources	proteins per 100g
pumpkin seeds	30.2
lentins	24.6
beans	21.6
almonds	21.1
tempeh	20.3
tofu	17.3
oats	16.9
quinoa	14.1





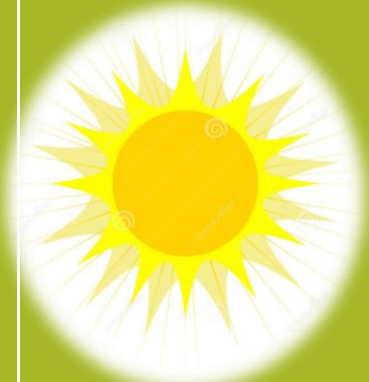
VITAMINS AND MINERALS SUPPLEMENTS

Food supplements are concentrated sources of nutrients (i.e. and vitamins) or other substances with a nutritional or physiological effect that are marketed in “dose” form (e.g. pills, tablets, capsules, liquids in measured doses)

Vitamins and minerals are considered micronutrients. They are not used as an energy source but they are part in many functions in our body.

Most of the Vitamins and minerals cannot be synthesized in our body, so we have to assume in our diet.

In case our diet presents a lack of one or more of these micronutrients, an adequate supplementation should be considered.



MOST COMMON AND LESS DESIRED MICRONUTRIENT DEFICIENCIES IN SPORT

Iron



- Present in our blood cells and muscles, helps the oxygen carrying.
- A lack , leads to a tiredness felling or more serious diseases.
- Avoid consumption of coffee and teas during meals, vitamin C helps iron absorption

Zinc



- Important in the protein synthesis, thus in the muscle growth .
- Lack of zinc is often overlooked in favor of calcium and iron.
- Common in vegans, vegetable sources are beans, wheat, pumpkin seeds, oats.

Vitamin D

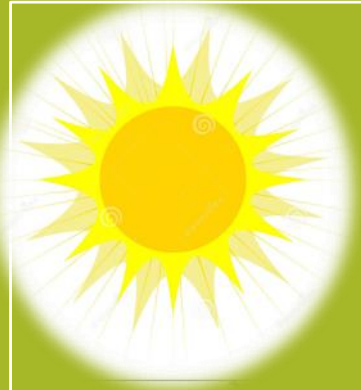


- Important for bone health, calcium absorption and other physiological processes.
- Consider the supplementation during wintertime.

Calcium



- Principal element of or bone.
- For vegans, millet, fortified soy (as tempeh), or fortified tofu.



SOME DAYLESFORD PRODUCTS

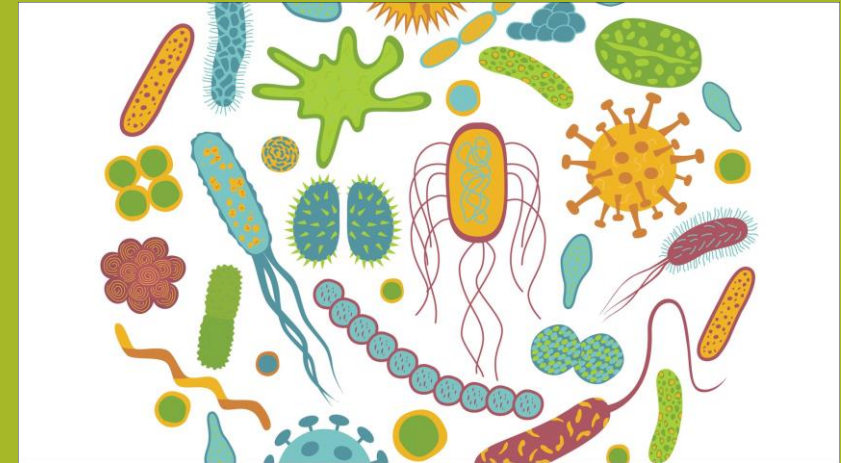




GUT MICROBIOME

The gut microbiome consists of the collective genome of microbes inhabiting the gut (symbiotic and pathogenic) including bacteria, archaea, viruses, and fungi.

- Control digestion.
- Benefits in the immune system
- May contribute to weight gain, high blood sugar, high cholesterol and other disorders.
- Protects pathogen bacteria.
- Synthesis of K group vitamins.



Intensive physical activity may stress our Gut causing pain, cramps, nausea or diarrhea.



SOME DAYLESFORD PRODUCTS





SLEEP

Resting period is important as much the training. It is important to sleep about 7/8 and following the natural time .

A lack of sleep can bring:

- Stress
- Decrease of muscle mass
- Increase of fat mass
- Higher Glycaemic response
- Lower metabolization of micronutrients as vitamins and minerals.



SOME DAYLESFORD PRODUCTS



OTHER FACTORS

- Heat Stress
- Immune system
- Hydration
- Fats
- Doping (in a negative way)



Some videos about the role of nutrition in sport:

<https://www.youtube.com/watch?v=2iriejQTgF0>

<https://www.youtube.com/watch?v=DBEJlgXBNzY>

THANK YOU FOR YOUR
ATTENTION

