



Erasmus+

ROUTINE FOR HEALTHY LIFE

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Healthy nutrition

to start a healthy life

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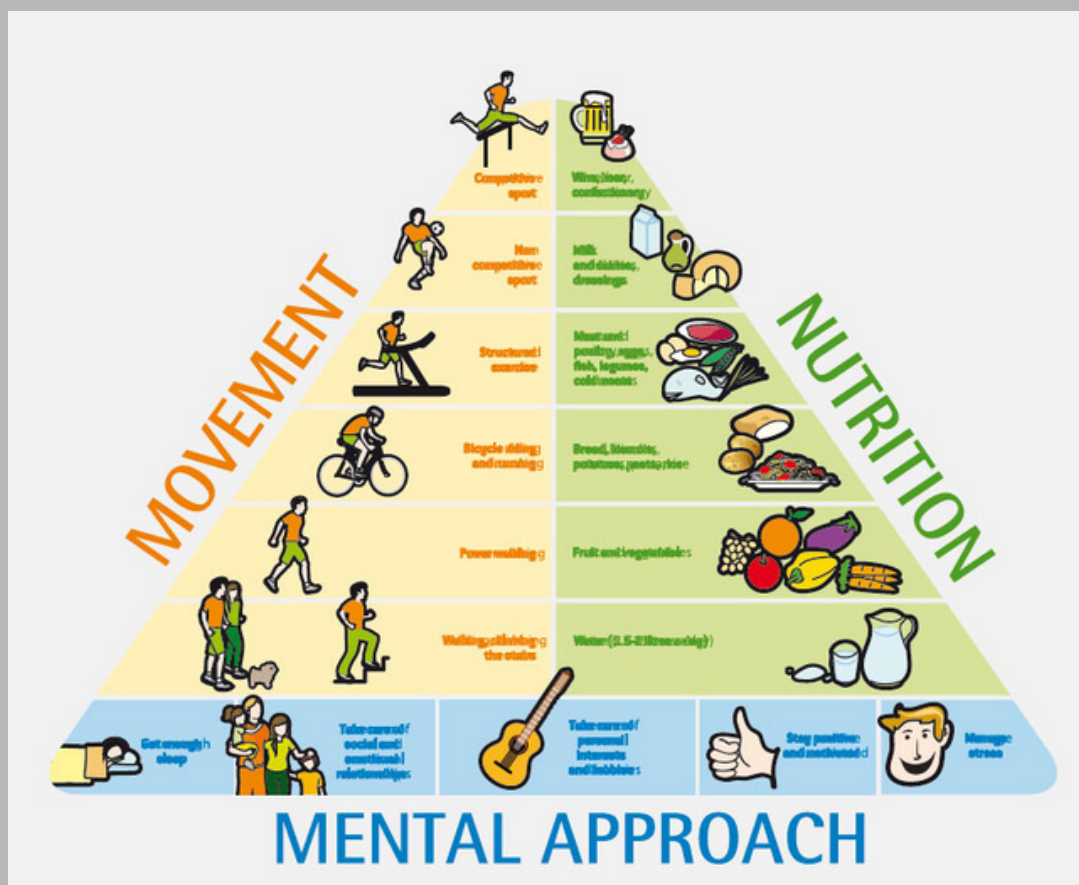
Diet and lifestyle, the Mediterranean Diet and the Healthy Eating Plate

Lifestyle

The **World Health Organization** defines the concept of **HEALTH** as "A state of complete physical, mental and social well-being and not merely the absence of disease".



Wellness pyramid



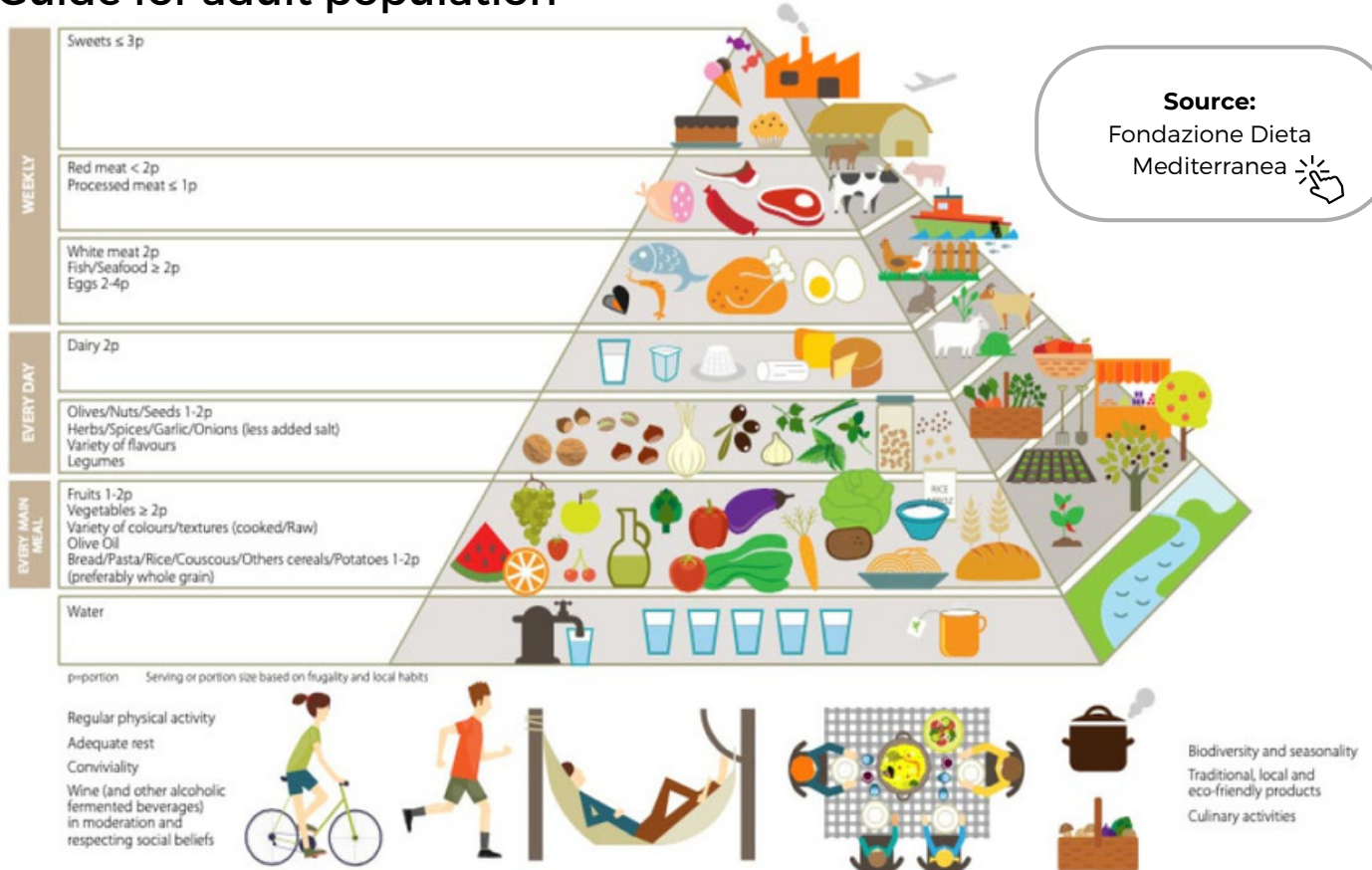
Source: Wellness pyramid, Wellness Foundation

<https://www.wellnessvalley.it/it/il-promotore/wellnessfoundation/>

At the basis of non-communicable chronic diseases there are risk factors related to lifestyle, such as unbalanced diet, tobacco consumption, alcohol abuse, sedentary lifestyle. So, **it is good to act on all aspects** to do prevention.

Mediterranea diet pyramid

Guide for adult population



As far as the nutritional aspect is concerned, scientific research has shown that favourable effects on health are obtained the closer the diet approaches the Mediterranean diet, characterized by a perfectly balanced combination of seasonal fruit and vegetables, fish, cereals and legumes, extra virgin olive oil, with a reduced consumption of meat, cheese and alcohol.

The food pyramid is an **educational strategy** with the aim of guiding the population towards healthier food choices. At the base of the pyramid, we find **physical activity** (which must be practiced daily), **conviviality**, the choice of **local products** and **seasonality** (especially fruit and vegetables). Going up, the frequency of intake of the various **food groups** is shown.

TEST YOUR ADHERENCE TO THE MEDITERRANEAN DIET

GO TO THE QUIZ!

You can measure your adherence to the Mediterranean Diet with this quiz (in English), created by adapting this tool:

A 14-Item Mediterranean Diet Assessment Tool and Obesity Indexes among High-Risk Subjects:

The PREDIMED Trial - Scientific Figure on ResearchGate. Available from:

https://www.researchgate.net/figure/Validated-14-item-Questionnaire-of-Mediterranean-diet-adherence_fig9_230699954



To learn more:

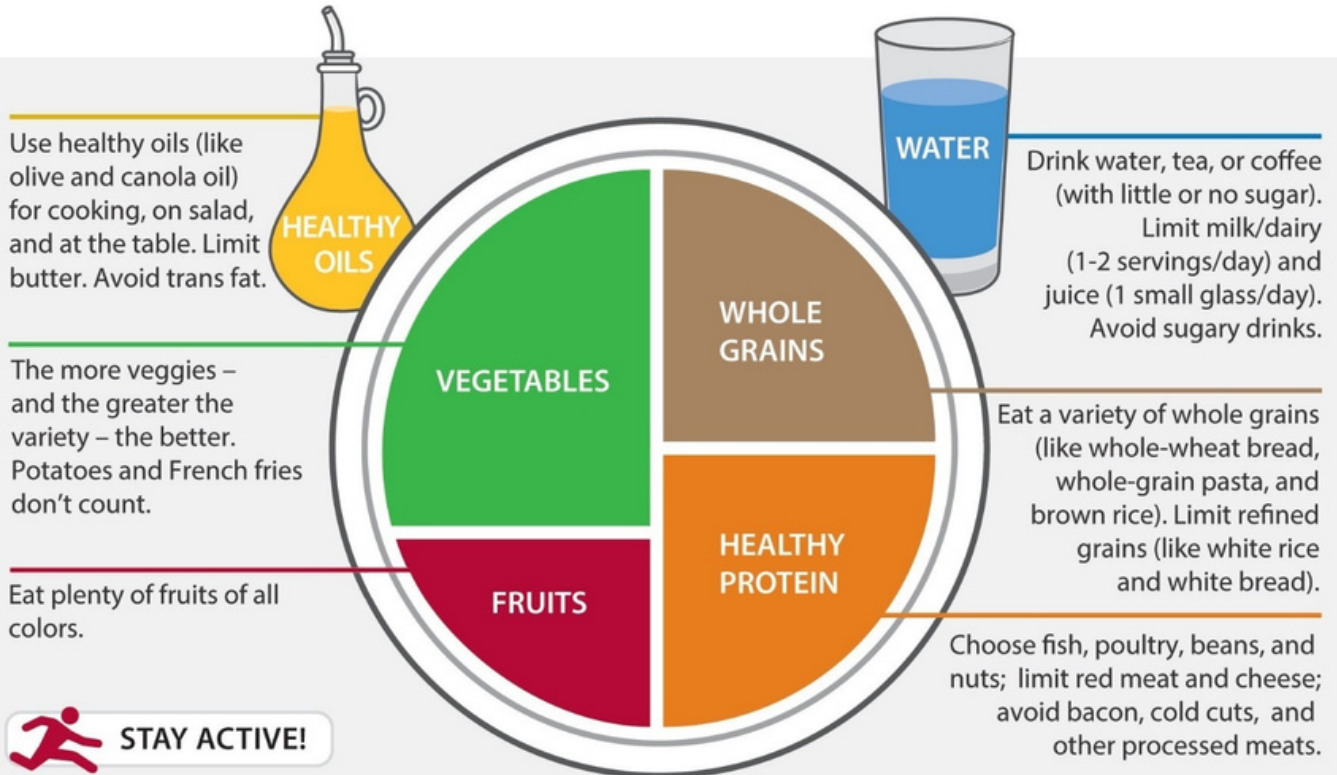
Visit the website: <https://www.fondazione dietamediterranea.it/dieta/la-piramide-alimentare/>

Transcultural Food Pyramid: <https://sip.it/2017/10/30/piramide-alimentare-1/>

The Healthy Eating Plate

The Healthy Eating Plate, created by nutrition experts at the Harvard School of Public Health is a **guide to creating healthy, balanced meals.**

HEALTHY EATING PLATE



 **STAY ACTIVE!**

© Harvard University



Harvard T.H. Chan School of Public Health
The Nutrition Source
www.hsph.harvard.edu/nutritionsource

Harvard Medical School
Harvard Health Publications
www.health.harvard.edu



Source: Copyright © 2011, Harvard University. For more information about The Healthy Eating Plate, please see The Nutrition Source, Department of Nutrition, Harvard T.H. Chan School of Public Health, www.thenutritionsource.org, and Harvard Health Publications, www.health.harvard.edu.

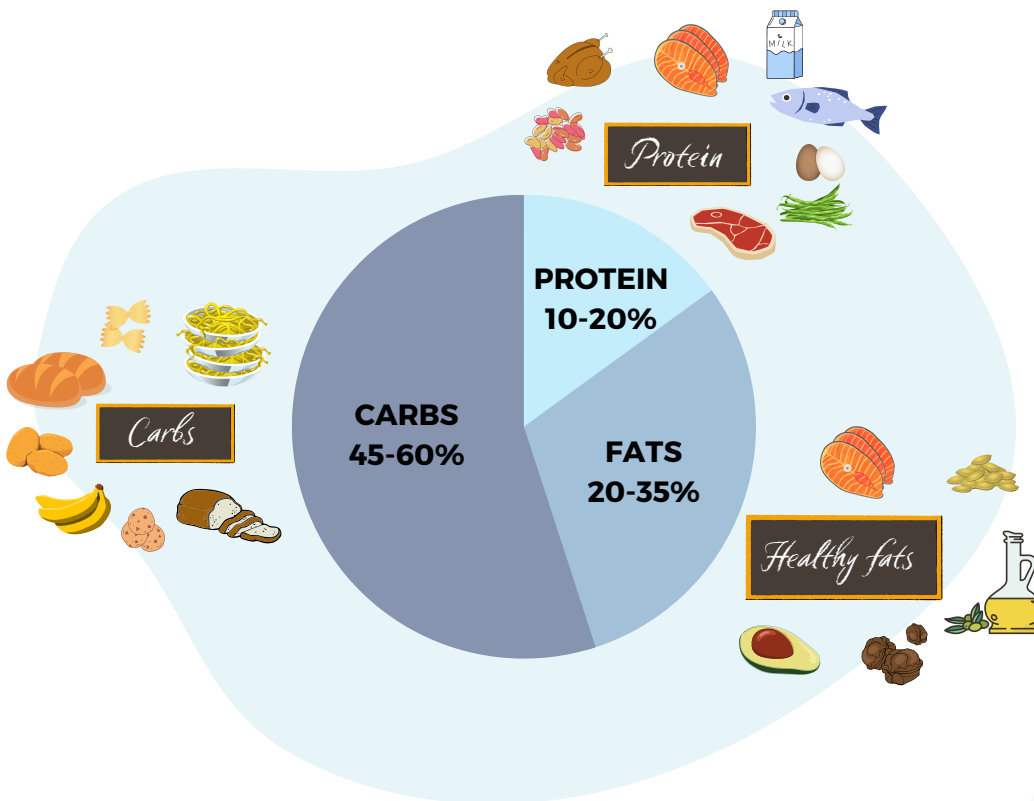


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Macronutrients (carbohydrates, protein, fats) and water

Daily calorie breakdown



The total amount of fats, proteins and carbohydrates consumed in the day through food represents the **daily caloric intake** of a subject.

As far as the **daily energy distribution** is concerned, the following subdivision is recommended, in order to have a balanced diet:

45-60% CARBOHYDRATES
preferring complex carbohydrates, preferably wholemeal richer in fiber, vitamins and minerals

20-35% LIPIDS
of which more than 50% represented by monounsaturated fats or given by olive oil, the protagonist of the Mediterranean diet

10-20% PROTEIN
for a healthy sedentary/ mildly active individual

Carbohydrates

How many?

They provide about **4 kcal per gram** and mainly perform an **energy function** since they supply glucose or the sugar used by the muscles and the brain.

4 Kcal/g

LARN - Dietary Reference Values for the Italian population: CARBOIDRATES AND DIETARY FIBRE

LARN PER CARBOIDRATI E FIBRA ALIMENTARE			
Componente	SDT Obiettivo nutrizionale per la prevenzione	AI Assunzione adeguata	RI Intervallo di riferimento per l'assunzione di macronutrienti
Carboidrati totali	Prediligere fonti alimentari amidacee a basso GI in particolare quando gli apporti di carboidrati disponibili si avvicinano al limite superiore dell'RI. Tuttavia, limitare gli alimenti in cui la riduzione del GI è ottenuta aumentando il contenuto in fruttosio o in lipidi.		45-60% En*
Zuccheri **	Limitare il consumo di zuccheri a <15% En. Un apporto totale >25% En (95° percentile di introduzione nella dieta italiana) è da considerare potenzialmente legato a eventi avversi sulla salute. Limitare l'uso del fruttosio come dolcificante. Limitare l'uso di alimenti e bevande formulati con fruttosio e sciroppi di mais ad alto contenuto di fruttosio.	nd	nd
Fibra alimentare	Preferire alimenti naturalmente ricchi in fibra alimentare quali cereali integrali, legumi, frutta e verdura. Negli adulti, consumare almeno 25 g/die di fibra alimentare anche in caso di apporti energetici <2000 kcal/die.	Età evolutiva: 8,4 g/1000 kcal (2 g/MJ)	Adulti: 12,6-16,7 g/1000 kcal (3-4 g/MJ)

Source:

IV Revisione dei Livelli di Assunzione di Riferimento di Nutrienti ed energia per la popolazione italiana (LARN), Società Italiana di Nutrizione Umana (SINU)



The IV revision of **DRV of Nutrients and Energy for Italian population (LARN)** is the document of the Italian Society of Human Nutrition (SINU) useful for nutritional research and dietary planning.

Which ones?

CEREALS (preferably wholemeal): ·Wheat (pasta, bread, breakfast cereals), brown rice, basmati rice, red rice, black rice, buckwheat, oats, millet, teff, amaranth, sorghum, quinoa, spelled, corn, couscous, barley, rye...

LEGUMES: lentils, chickpeas, beans, peas, legume paste, lupins, grass peas, broad beans

POTATOES and tubers

FRUIT/VEGETABLES (including green beans, chestnuts and squash)

SIMPLE SUGARS: common sugar (sucrose), dates, honey, maple syrup, sultanas, coconut sugar, dried fruits, fruit juices...

Protein

How many?

In addition to representing a source of energy (**with 4 kcal/gram**), they are involved in many activities within our body but the **main function** is **plastic**. The quantity for the sports person may vary.

4 Kcal/g

Which ones?

ANIMAL PROTEINS (50%)
Eggs, fish, meat and derivatives, shellfish, milk, yoghurt, cheese.

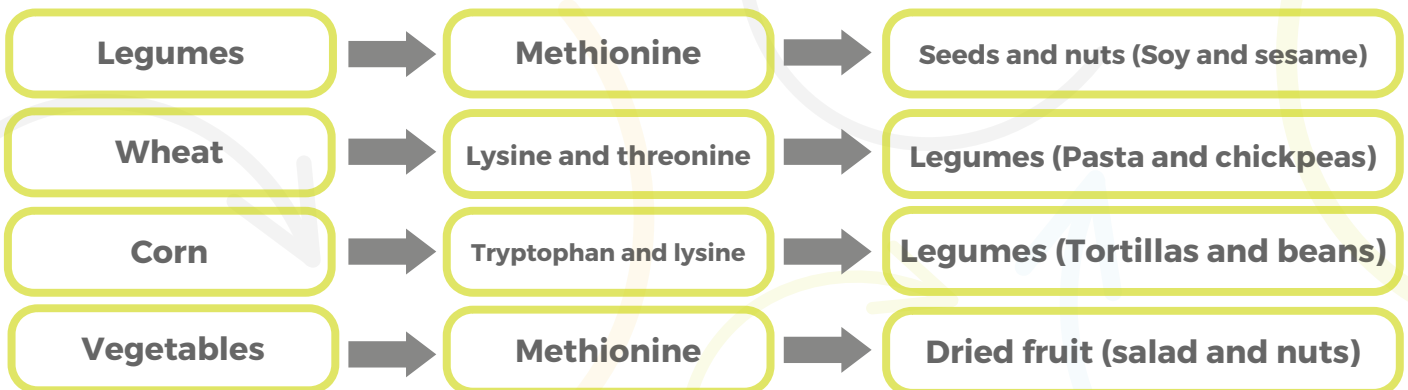
VEGETABLE PROTEINS (50%)
• Legumes and derivatives (tofu, falafel, tempeh, vegetable cheeses), dried fruit, oilseeds, cereal derivatives (seitan), dried fruit creams, dark chocolate >80%.

LARN - DRVs for the Italian population: PROTEIN

LARN PER LE PROTEINE								
		Peso corporeo (kg)	AR Fabbisogno medio		PRI Assunzione raccomandata per la popolazione		SDT Obiettivo nutrizionale per la prevenzione	
			(g/kg*die)	(g/die)	(g/kg*die)	(g/die)	(g/kg*die)	(g/die)
LATTANTI	0-12 mesi	8,8	1,11	9	1,32	11		
BAMBINI-ADOLESCENTI	1-3 anni	13,7	0,82	11	1,00	14		
	4-6 anni	20,6	0,76	16	0,94	19		
	7-10 anni	31,4	0,61	25	0,99	31		
Maschi	11-14 anni	49,7	0,79	39	0,97	48		
	15-17 anni	66,6	0,79	50	0,93	62		
Femmine	11-14 anni	50,7	0,77	39	0,95	48		
	15-17 anni	65,7	0,72	40	0,90	50		
ADULTI								
Maschi	18-29 anni	70,0	0,71	50	0,90	63		
	30-59 anni	70,0	0,71	50	0,90	63		
	60-74 anni	70,0					1,1	77
	≥75 anni	70,0					1,1	77
Femmine	18-29 anni	60,0	0,71	43	0,90	54		
	30-59 anni	60,0	0,71	43	0,90	54		
	60-74 anni	60,0					1,1	66
	≥75 anni	60,0					1,1	66

Source: [IV Revisione dei Livelli di Assunzione di Riferimento di Nutrienti ed energia per la popolazione italiana \(LARN\)](#), Società Italiana di Nutrizione Umana (SINU)

However, there are **vegetable protein sources** that are not 100% complete in their amino acid profile, so we can associate them with other sources to have a complete nutritional dish (examples in the diagram below).



Fats

How many

The latter are macronutrients which, in addition to representing a source of energy with **9 kcal per gram**, perform important biological/structural functions in our body.

9 Kcal/g

LARN - DRVs for the Italian population: LIPIDS

LARN PER LIPIDI				
		SDT Obiettivo nutrizionale per la prevenzione	AI Assunzione adeguata	RI Intervallo di riferimento per l'assunzione di nutrienti
LATTANTI	Lipidi totali	<10% En	40% En	5-10% En 4-8% En 0,5-2,0% En
	SFA			
	PUFA			
	PUFA n-6 PUFA n-3			
Acidi grassi trans	Il meno possibile	EPA-DHA 250 mg + DHA 100 mg		
BAMBINI-ADOLESCENTI	Lipidi totali	<10% En	EPA-DHA 250 mg 1-2 anni +DHA 100 mg	1-3 anni: 35-40% En >4 anni: 20-35% En*
	SFA			
	PUFA			
	PUFA n-6 PUFA n-3			
Acidi grassi trans	Il meno possibile		5-10% En 4-8% En 0,5-2,0% En	
ADULTI E ANZIANI	Lipidi totali	<10% En	EPA-DHA 250 mg	20-35% En*
	SFA			
	PUFA			
	PUFA n-6 PUFA n-3			
	Acidi grassi trans	Il meno possibile		5-10% En 4-8% En 0,5-2,0% En
Colesterolo	<300 mg			

Source:

IV Revisione dei Livelli di Assunzione di Riferimento di Nutrienti ed energia per la popolazione italiana (LARN), Società Italiana di Nutrizione Umana (SINU)



The **Omega3** and **Omega6** essential fatty acids (essential because we are unable to produce them) have recommended intake dosages which vary according to the special physiological state (e.g. during pregnancy they are essential for the development of the fetus). These intervene in the regulation of cardiovascular and immune processes and fight the inflammatory state.

Which ones?

VEGETABLE FATS:

Extra virgin olive oil (50%), seed oil, coconut, avocado, dried fruit, oilseeds, sesame butter, coconut butter, dried fruit creams, ghee, vegetable drinks, mayonnaise, olives, chocolate, cocoa...

ANIMAL FATS:

Cream, butter, lard, "fat" cheeses, oily fish, eggs, red meat / sausages...

Fats

Which ones?

The beneficial effects of olive oil on the cardiovascular system are scientifically proven!

SOURCES OF MONOUNSATURATED FATTY ACIDS	SOURCES OF OMEGA-3 FATTY ACIDS	SOURCES OF OMEGA-6 FATTY ACIDS
 <p>Extra virgin olive oil</p>	 <p>Nuts</p>	 <p>Cold pressed seed oils</p>
 <p>Hazelnuts</p>	 <p>Blue fish</p>	 <p>Various seeds (sesame, sunflower...)</p>
 <p>Avocado</p>	 <p>Linseed</p>	 <p>Dried fruits</p>

Source: CORonary Diet Intervention with Olive oil and cardiovascular PREvention study
ARTICLES| VOLUME 399, ISSUE 10338, P1876-1885, MAY 14, 2022

Long-term secondary prevention of cardiovascular disease with a Mediterranean diet and a low-fat diet (CORDIOPREV): a randomised controlled trial. Javier Delgado-Lista, MD *et al.

Published: May 04, 2022 THE LANCET

Water

How much?

Water is also a food regulated by several laws. It is found at the base of the food pyramid because it should be taken daily in varying amounts according to age, sex, special or pathological physiological state and physical activity practiced (see LARN).

0 Kcal/g

LARN - DRVs for the Italian population: WATER

LARN PER L'ACQUA (mL/die)					
		AR Fabbisogno medio	PRI Assunzione raccomandata per la popolazione	AI Assunzione adeguata	UL Livello massimo tollerabile di assunzione
LATTANTI	6-12 mesi			800	nd
BAMBINI-ADOLESCENTI					
	1-3 anni			1200	nd
	4-6 anni			1600	nd
	7-10 anni			1800	nd
Maschi	11-14 anni			2100	nd
	15-17 anni			2500	nd
Femmine	11-14 ann			1900	nd
	15-17 anni			2000	nd
ADULTI					
Maschi	18 -29 anni			2500	nd
	30 -59 anni			2500	nd
	60-74 anni			2500	nd
	≥75 anni			2500	nd
Femmine	18-29 anni			2000	nd
	30-59 anni			2000	nd
	60-74 anni			2000	nd
	≥75 anni			2000	nd
GRAVIDANZA				+350	nd
ALLATTAMENTO				+700	nd

nd: non definito.

Per le fasce d'età si fa riferimento all'età anagrafica; ad esempio per 4-6 anni s'intende il periodo fra il compimento del quarto e del settimo anno di vita. L'intervallo 6-12 mesi corrisponde al secondo semestre di vita.

Source:

IV Revisione dei Livelli di Assunzione di Riferimento di Nutrienti ed energia per la popolazione italiana (LARN), Società Italiana di Nutrizione Umana (SINU)



SEDENTARIANS

0,03 L x kg body weight

ACTIVE PEOPLE

0,04 L x kg body weight

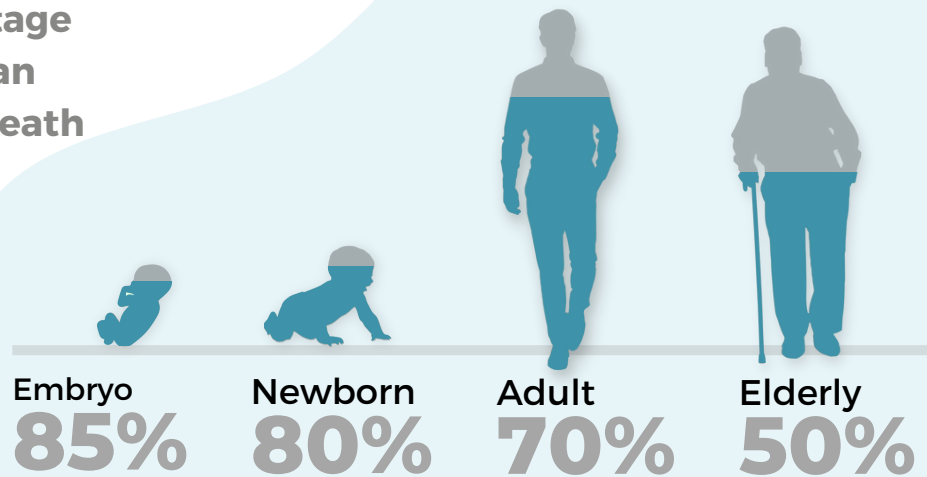


Water

Why is water so important?

It's so important because **our bodies are made up of about 60% water** (as well as fat, protein and other components) and it varies according to age and gender. It performs innumerable functions, keeps us alive and participates in the reactions of our metabolism.

Trend of the percentage of water in the human body from birth to death



Exogenous water (700/1500 ml):

still water, sparkling water, water contained in food (especially fruit and vegetables), herbal teas, infusions, tea, coffee, broths, milk, juices and drinks (including vegetable) with no added sugar, etc.

Endogenous water (600/700 ml):

produced by the metabolism of macronutrients within our body.

BEWARE OF DEHYDRATION! < 1%

Corresponds to the decrease in body water of more than 1% of body weight. The first symptoms are headache, loss of appetite, reddening of the skin, fatigue, muscle cramps, up to dizziness, nausea, vomiting, loss of consciousness, etc. 8% dehydration is seriously life-threatening. Subjects at risk are the elderly and athletes (with consequent worsening of performance).

Micronutrients: non-energy essential

MINERALS: sodium, potassium, calcium, phosphorus, chlorine, magnesium, iron, copper, zinc, selenium, iodine, fluorine manganese, chromium, sulfur
In all foods, including water!

LIPOSOLUBLE VITAMINS: A, D, E, K

Milk, cheese, egg yolk, liver, cod liver oil, salmon, squash, carrots, nuts, cereals, fruit, green leafy vegetables, oil, etc.

WATER-SOLUBLE VITAMINS: B1, B2, B3, B5, B6, B9, B12, C, BIOTIN

Legumes, cereals, fruits, vegetables of all colours, yeast, milk, meat, royal jelly, nuts, eggs, etc.



To find out the quantity of macro and micronutrients
in various foods, you can consult the database

www.bda-ieo.it

**Supplement only if necessary,
on the advice of a specialist**



EXERCISE YOURSELF!

**Combine the nutrients with the different
categories in this GAME!**

 **Play**

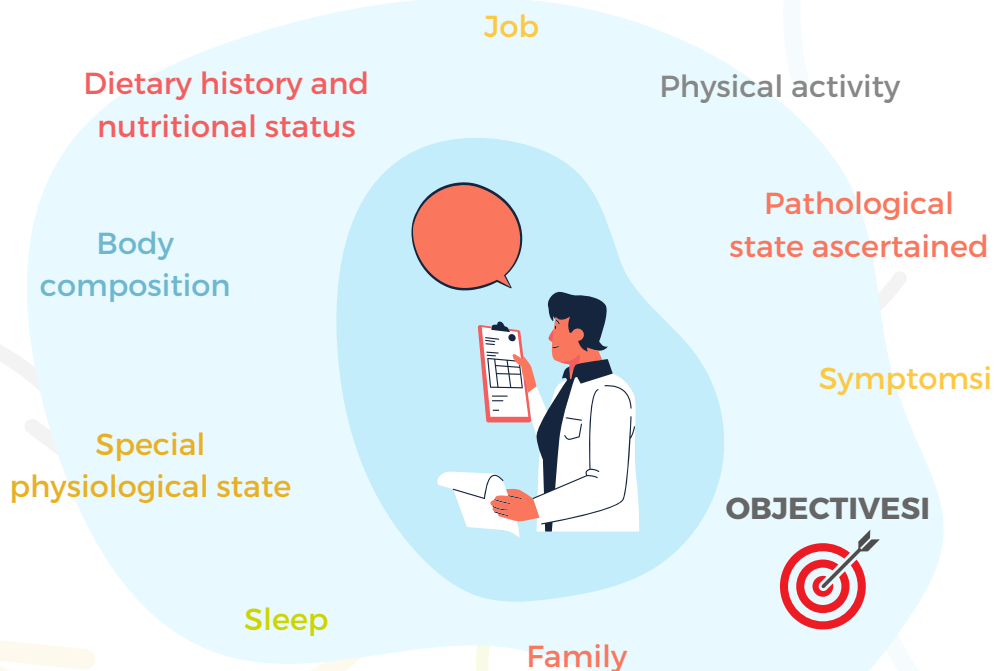
Objective: HEALTH

- **Your weight is mostly up to you.** It is not necessary to weigh yourself every day, but it is sufficient to do it approximately once a month, paying attention to any variations.
- If you are underweight or overweight, **consult your doctor** to evaluate your clinical conditions, carry out diagnostic tests and get the appropriate suggestions.
- **Strive to maintain your weight within normal limits** or gradually bring it back to normal, possibly by being followed by specialists with adequate experience in nutrition.
- **If you are overweight:** reduce your energy "income" by eating less and preferring low-calorie foods that are more filling, such as fruit and vegetables; increases and energy "outputs" by carrying out greater physical activity; appropriately distribute nutrition throughout the day starting from breakfast, which must not be neglected.
- **Get used to moving more every day:** walk, go up and down stairs, do small housework, etc.
- **Avoid very drastic diets of the "do it yourself" type,** almost always unbalanced in terms of nutritional intake (for example, single-food diets and those almost totally based on proteins) or exaggeratedly severe (for example, those based on meal replacements or prolonged fasts or semi-fasts) which if followed for prolonged periods, can be harmful to your health. A good slimming diet must always include all foods in as balanced a way as possible.

SPECIFIC MEAL PLAN FOR EACH PERSON

Source:
CREA – Linee guida per una sana alimentazione – Revisione del 2018

FACTORS TO BE CONSIDERED



Practical tips



Shopping list to avoid waste



Simple and short product ingredients list



Lowest possible sugar and saturated fat content



Pay attention to the salt content and additives (nitrites, sulphites, alcohol, etc.)



Prefer spices and flavourings over salt (use the iodized one)



Use raw extra virgin olive oil and/or lightly fried (for frying do not exceed 170 degrees)



Limit sugar (white or brown does not matter) preferring the sweetener based on stevia or erythritol



Seasonal fruit and vegetables

OPEN AND DOWNLOAD THE CALENDAR!



When possible buy organic



Prefer steam, stew, foil, oven, non-stick pan, boiling, grill, microwave cooking methods



Alcoholic beverages: as little as possible!

Up to 2 a.u. man
Up to 1 a.u. woman



Functional pantry



Fruits, vegetables, tubers and roots



Cereals and pseudo-cereals



Legumes



White and red meat



Fish, crustaceans, molluscs



Milk and derivatives



Organic free-range eggs (in the fridge in the summer)



Aromatic herbs and spices



Oily fruit and seeds



Unsweetened dehydrated fruit



Herbal teas in compostable filters or in bulk



Bitter cocoa, dark chocolate, natural vanilla



Condiments (evo oil, linseed oil, coconut oil, unpasteurized apple vinegar, red wine vinegar, sugar-free balsamic vinegar, olive paté, aromatic herb pesto, olives, unrefined salt, rose, iodized, etc.) and pickles



Coffee: prefer moka in stainless steel



Prefer homemade biscuits and cakes, even for daily use



Any sweeteners: stevia, erythritol, maple syrup, dates, honey, sultanas, muscovado sugar, coconut sugar, real fruit.



Prefer pots and pans made of stainless steel, cast iron, iron, ceramic, pyrex, earthenware. Use glass as a container (even for water)



Example of weekly menu

(For a moderately active healthy person)

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
BREAKFAST	<ul style="list-style-type: none"> Whole grain bread Veg drink or milk Jam with reduced sugar content 	<ul style="list-style-type: none"> Oat-based drink Muesli or granola 	<ul style="list-style-type: none"> Soy or milk-based drink Whole grain bread Jam with reduced sugar content Peanut butter 	<ul style="list-style-type: none"> Mandorle Bevanda veg Fette biscottate ai cereali Jam with reduced sugar content 	<ul style="list-style-type: none"> Oat-based drink Whole grain bread Peanut butter Jam with reduced sugar content 	<ul style="list-style-type: none"> Muesli or granola Protein drink 	<ul style="list-style-type: none"> Dark chocolate Soy or milk-based drink Rusks with cereals Jam with reduced sugar content
MID MORNING	<ul style="list-style-type: none"> Fruit/vegetable Almonds 	<ul style="list-style-type: none"> Fruit/vegetable Lean raw ham 	<ul style="list-style-type: none"> Fruit/vegetable Greek yoghurt 	<ul style="list-style-type: none"> Fruit/vegetable Lupins 	<ul style="list-style-type: none"> Bar Fruit/vegetable 	<ul style="list-style-type: none"> Wasa Light cheese Fruit/vegetable 	<ul style="list-style-type: none"> Fruit Whole grain bread Extra virgin olive oil
LUNCH	<ul style="list-style-type: none"> Pasta with tomato Parmesan cheese Mixed cooked vegetables Extra virgin olive oil 	<ul style="list-style-type: none"> Steamed chickpeas Creamy potato and leek soup Extra virgin olive oil 	<ul style="list-style-type: none"> Venus rice Shrimp Tomatoes Extra virgin olive oil 	<ul style="list-style-type: none"> Pasta Sauce with lean minced meat Extra virgin olive oil 	<ul style="list-style-type: none"> Caciottina (cheese) Mixed raw vegetables Steamed beans Whole grain bread Extra virgin olive oil 	<ul style="list-style-type: none"> Tortellini Mixed cooked vegetables Extra virgin olive oil 	<ul style="list-style-type: none"> First course, second course and vegetables
SNACK	<ul style="list-style-type: none"> Skimmed milk yoghurt Fruit 	<ul style="list-style-type: none"> Fruit Dark chocolate 	<ul style="list-style-type: none"> Wasa Fruit/vegetable Light cheese 	<ul style="list-style-type: none"> Whole grain bread Chicken rump 	<ul style="list-style-type: none"> Skimmed milk yoghurt Fruit 	<ul style="list-style-type: none"> Fruit/vegetable Almonds or olives 	<ul style="list-style-type: none"> Dessert 1 portion
DINNER	<ul style="list-style-type: none"> Lean veal Mixed salad Whole grain bread Extra virgin olive oil 	<ul style="list-style-type: none"> Chicken breast Verdure grigliate Wholemeal piadina Extra virgin olive oil 	<ul style="list-style-type: none"> Omelette Vegetables Whole grain bread Extra virgin olive oil 	<ul style="list-style-type: none"> Light ricotta Carrots Peas or green beans Extra virgin olive oil 	<ul style="list-style-type: none"> Sea bream Potatoes Extra virgin olive oil 	<ul style="list-style-type: none"> Pizza 	<ul style="list-style-type: none"> Omelette or mozzarella Mixed cooked vegetables Extra virgin olive oil

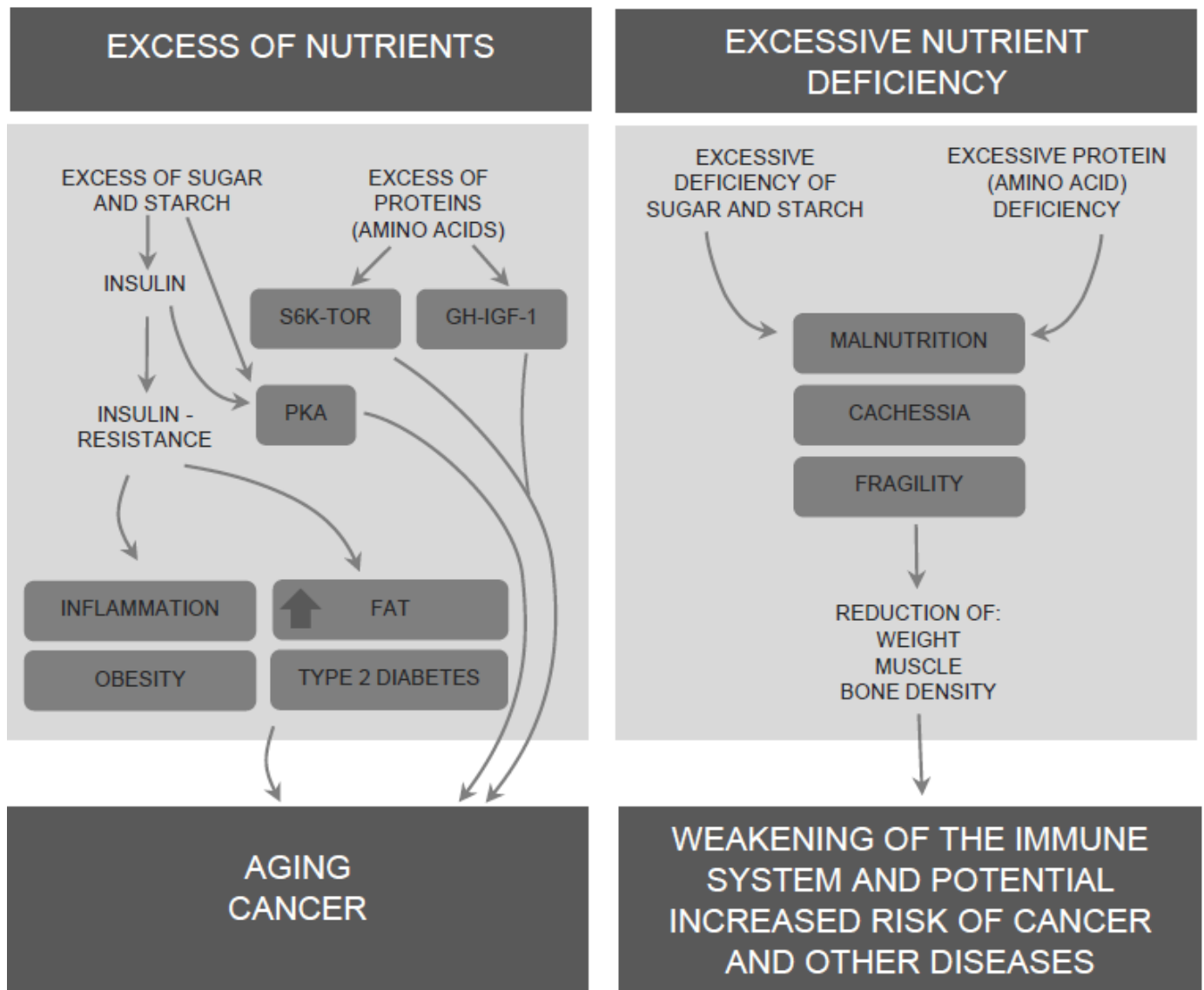


It is possible to have 3 main meals + 2 or more snacks as needed.



BEWARE OF PROLONGED FASTINGS!

Prevention better than cure!



Source:

Valter Longo, Il Cancro a digiuno, Vallardi Editore 2021



Both excess and deficiency of nutrients lead to a perturbation of health status and an increased risk of disease. It's good to rely on a professional to get a complete picture of your nutrition status and to do prevention through a healthy and balanced lifestyle.

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IV Revisione dei Livelli di Assunzione di Riferimento di Nutrienti ed energia per la popolazione italiana (LARN), Società Italiana di Nutrizione Umana (SINU)

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Il Cancro a digiuno, Valter Longo, Vallardi Editore 2021



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