

EAT WELL

STRESS & SLEEP

EXERCISE



The keys to changing your lifestyle

The PiLeJe Foundation operates under the aegis of the Fondation de France¹ as a non-profit, «general well-being» organisation to promote the links between diet, the management of stress & sleep, physical exercise and health. Its target audience is the general public. Its strategic direction is set by an Executive Committee, chaired by Dr Jean-Michel Lecerf (head of the Nutrition department at the Fondation-Institut Pasteur de Lille), whose members are drawn from a broad range of fields. Since it was founded in 2005, it has organised numerous conferences and public debates throughout France, in partnership with town halls, schools, associations and businesses. The aim of this educational booklet is to provide simple and practical advice to enable every reader to quickly make the lifestyle changes they need to improve their well-being and long-term health.



To find out more: www.fondation-pileje.com

1. A French organisation which promotes philanthropy.

The keys to changing your lifestyle to ensure long-term health

Key 1

EAT WELL

A taste of the
Mediterranean!



Key 2

STRESS & SLEEP

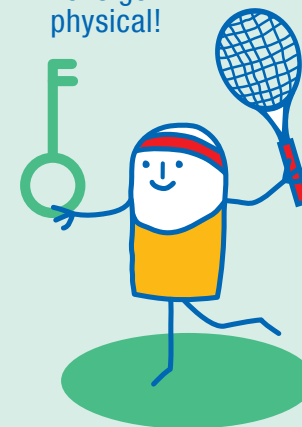
Banish the
stress demon.
Sleeping soundly.



Key 3

EXERCISE

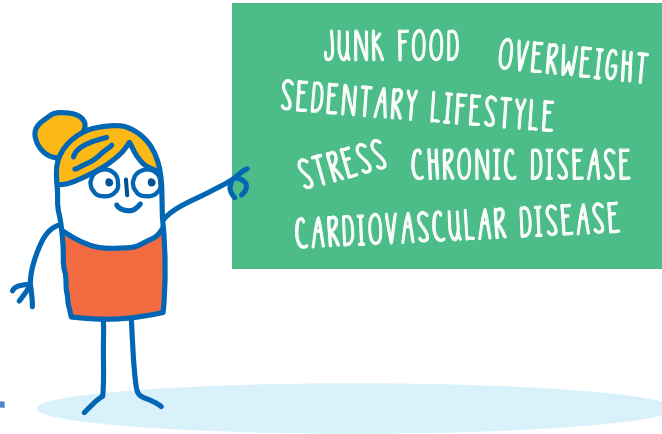
Let's get
physical!



The finger of suspicion points at... lifestyle

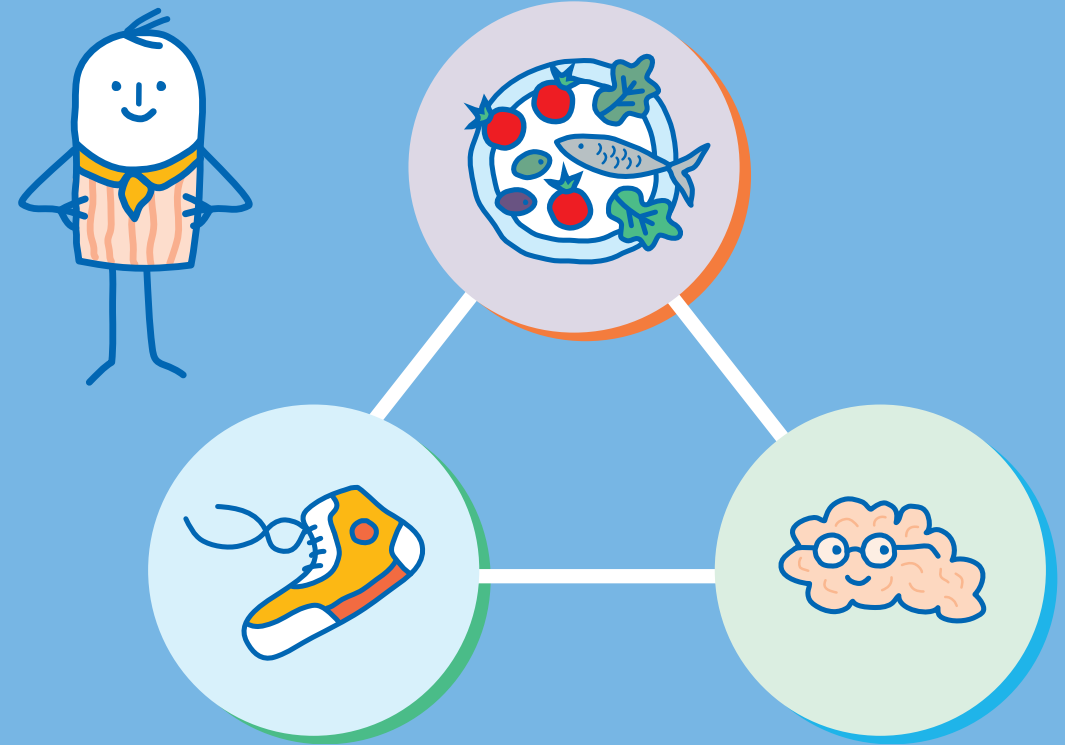
The role of diet, a sedentary lifestyle and stress in the development of overweight, obesity and of numerous chronic diseases such as cancer, cardiovascular disease, diabetes, etc. is now founded on sound scientific evidence. These diseases account for some of the main global causes of mortality and the number of people involved continues to increase.

In response to this situation, the French national health authority (**HAS**), in a report in April 2011, recommended the use of validated, **non-medicinal therapies** such as diet, the management of stress & sleep and physical exercise.



The three keys to changing your lifestyle

Eat well, stress & sleep, exercise



A taste of the Mediterranean!

The popular media is full of information about nutrition, some of which is contradictory. What good eating habits have a sound evidence base?

The Mediterranean diet, recognised for its health benefits

Many studies have now recognised the health benefits of the Mediterranean diet⁽¹⁾.

An international consensus based on recent scientific data on nutrition and health has prompted a revision of the diet pyramid developed specifically for the Mediterranean diet and first proposed by the team led by Dr Trichopoulou⁽²⁾.

(1) Psaltopoulou T, et al. Mediterranean diet, stroke, cognitive impairment, and depression: A meta-analysis. *Annals of Neurology*. 2013 Oct;74(4):580-91. Farinetti A, et al. Mediterranean diet and colorectal cancer: A systematic review. *Nutrition*. 2017 Nov - Dec;43-44:83-88. Galmes-Panades AM, et al. Lifestyle factors and visceral adipose tissue: Results from the PREDIMED-PLUS study. *PLoS One*. 2019 Jan 25;14(1):e0210726.

(2) Diet and overall survival in elderly people. (Antonia Trichopoulou 1995)



EAT WELL

1

A taste of the Mediterranean!

EVERY DAY

SMALL CHANGES, BIG DIFFERENCES



Three must-eat food groups

Grains: one or two portions per meal in the form of rice, pasta, couscous, etc., wholegrain if possible; sources of fibre and micronutrients (magnesium, vitamins, etc.).

Vegetables: two portions per meal, one of which should be raw (unless you have an irritable bowel) and **fruit:** one or two portions per meal which is a source of protective antioxidants and potassium.

Vary the colours and textures.

Prefer **in-season products grown locally** to protect the **environment** (organic, responsible farming practices, etc.).



Dairy produce: twice a day since they provide calcium and vitamin D. Choose from the various types of produce (yoghurt, cheese, milk).



Core aspects of the Mediterranean diet, **olive oil** (monounsaturated fatty acids), combined with **rape-seed oil** or **walnut oil** (omega-3): good for the heart and for the brain! Consume two to three tablespoons a day of a blend of rapeseed/olive or olive/walnut oil.



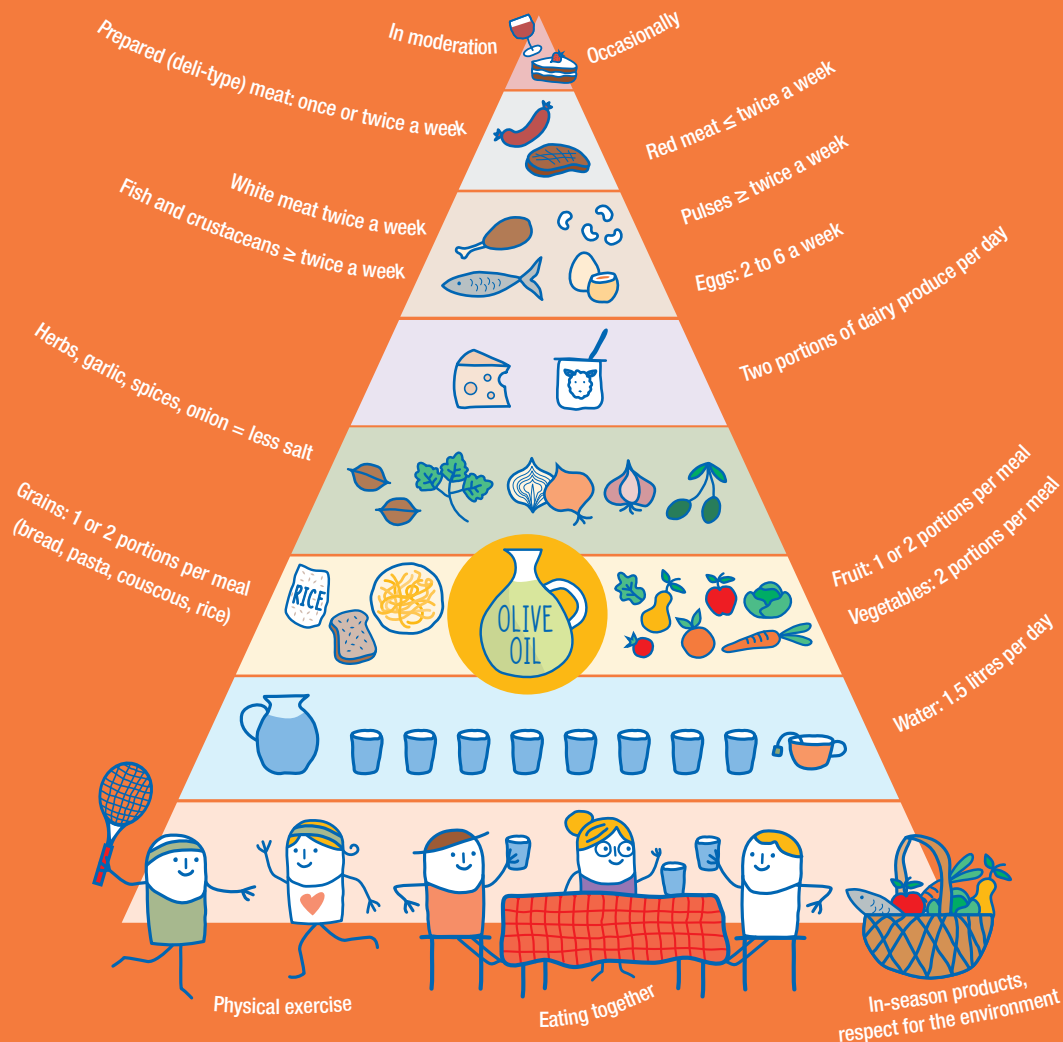
Olives, nuts, seeds, sources of fats, protein, vitamins and minerals.

Herbs, spices, garlic and onions, rich in antioxidants, also used to bring out the flavour in food and to reduce the amount of salt added.



Very moderate consumption of **red wine***, a source of resveratrol (antioxidant).

** The misuse of alcohol is dangerous for your health, drink in moderation.*



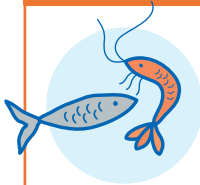
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EAT WELL

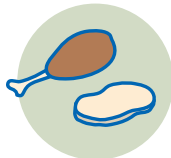
1 A taste of the Mediterranean!

SMALL CHANGES, BIG DIFFERENCES

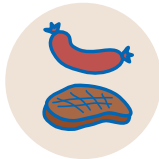
EVERY WEEK



Fish (or **crustaceans, molluscs, shellfish**): twice a week or more, since they provide protein and omega-3 (small oily fish, sardine, mackerel, herring, etc.).



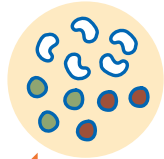
White meat: twice a week since it provides protein and has a low fat content.



Red meat, a source of iron: not more than twice a week; and **prepared (deli-type) meats**: once or twice a week.

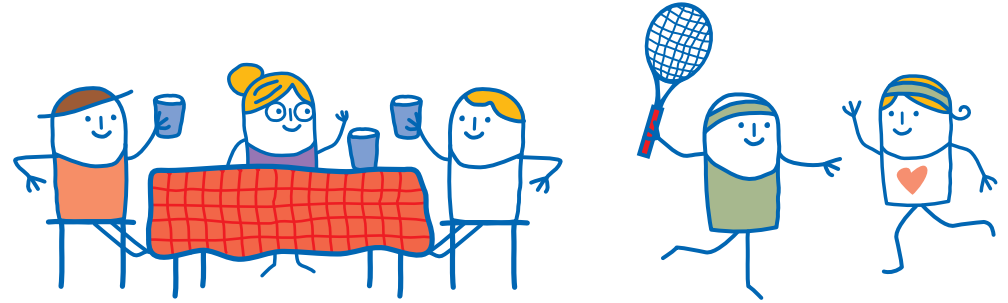


Eggs: two to six a week, rich in protein.



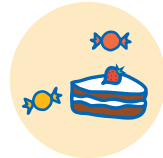
Pulses (**lentils, beans, peas, broad beans**): twice a week on average, combined with or instead of grains due to their low glycaemic index and their rich fibre and protein content.

Did you know? By forming symbiotic relationships with the bacteria in the soil around their roots, pulses fix nitrogen from the air and add it to the soil, thus forming one of the best natural fertilisers.



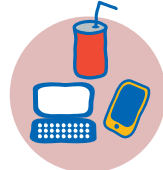
SMALL CHANGES, BIG DIFFERENCES

OCCASIONALLY



Foods very high in sugar (**sweets, cakes, pastries...**) in small quantities.

AVOID



Sugary drinks with a meal or away from meals. **Screens** (TV, tablets, mobile phones...) at the table.

AS OFTEN AS YOU LIKE



Cook at home to limit the number of processed, ready meals.



STRESS & SLEEP

2

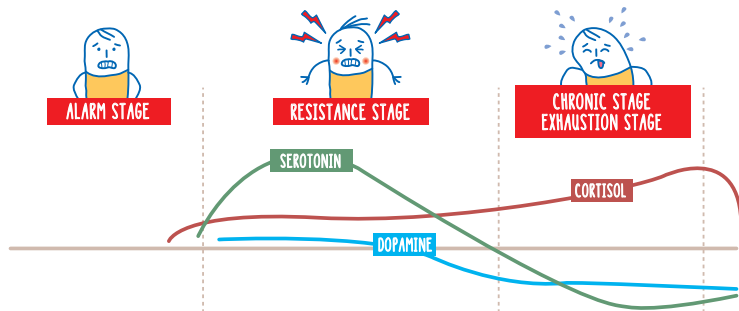
Banish the stress demon

Stress is the “**disease of the century**”. It disrupts the health of everyone who experiences stress by exhausting our reserves, and can result in the development of disease.

Whenever the body is stressed it responds by secreting **cortisol** to repair any lesions suffered and to restore the body's energy reserves.

In cases of **chronic (long-term) stress**:

- **cortisol** levels rise and disrupt the immune system and the metabolism of sugars and fats. Cortisol can also cause mood and sleep disorders and even impair the cerebral neurons.
- Levels of **serotonin**, the “serenity hormone”, ultimately collapse; followed by a drop in **dopamine**, the motivation hormone, and **cortisol** (this stage is known as “burn-out”).



Stress... Angel or demon?

“General adaptation syndrome provides a physiological explanation of the body's defensive response to any threat or stressful situation.”

Hans Selye, who pioneered research into stress

STRESS & SLEEP

Banish the stress demon



Serotonin and dopamine = neuromediators

They allow neurons to communicate with and transmit information to other neurons. They play a role in mood regulation and in the management of emotions.

Dopamine acts like an **ignition switch**: it stimulates motivation, helping you to get going in the morning and to complete projects. It also activates the pleasure sensation circuits.

Serotonin is the **serenity hormone**: it helps you to step back and see the bigger picture and controls urges to eat sugar, smoke or drink alcohol.



SMALL CHANGES, BIG DIFFERENCES

THERE ARE DIFFERENT WAYS OF MANAGING STRESS

Cognitive behavioural techniques such as **mindful meditation**.

Integrated techniques such as **hypnosis**.

Breathing and relaxation: **sophrology, yoga, cardiac coherence**.

CARDIAC COHERENCE: WHAT'S THAT?

Our heart rate varies depending on how we feel. Cardiac coherence is a breathing technique used to slow down heart rate and thus improve emotional well-being.

Benefits of cardiac coherence

- 📈 Cortisol (stress hormone)
- 📈 Heart rate
- 📈 Blood pressure
- 📈 Anxiety
- 📈 Melatonin (the "sleep" hormone)
- 📈 Digestive well-being
- 📈 Strengthening immune defences
- 📈 Emotional control
- 📈 Getting things in perspective



BASIC INSTRUCTIONS

- Sit down comfortably on a chair, with your feet firmly on the floor and concentrate on your breathing.
- Inhale for 5 seconds and then exhale for 5 seconds. Repeat for 5 minutes, three times a day.



Sleeping soundly

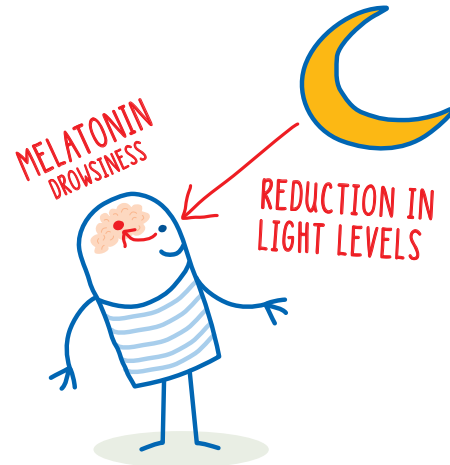
Sleep your way to good health!

Sleep lets the body regenerate its cells and store into long-term memory what has been learnt during the day. It plays a role in tissue and neuropsychic repair, in immune defence and in stabilising heart rate and blood pressure.

Melatonin, the master time-keeper

Secreted at about 8 pm in response to the absence of **light**, it reaches a peak at between 2 am and 4 am. Its production is inhibited by **light**.

Exposure to screens modifies its secretion, increases wakefulness and delays getting to sleep.



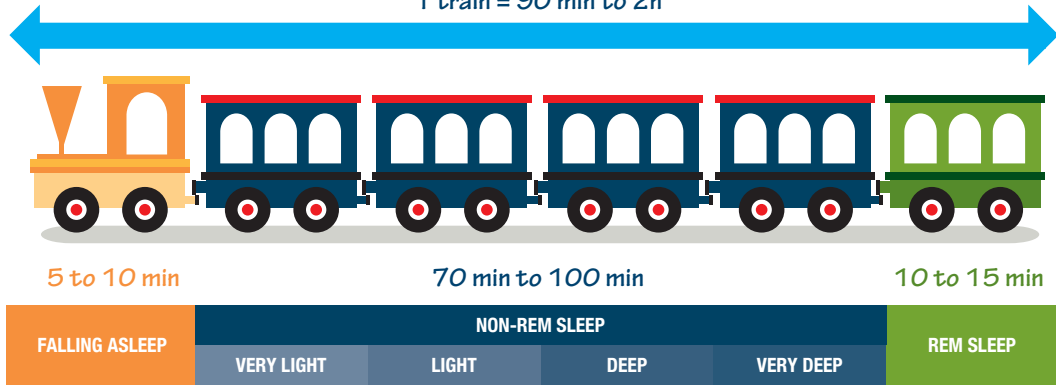
F STRESS & SLEEP

2 Sleeping soundly



The sleep train

1 train = 90 min to 2h



Sleep is made up of a number of phases, with specific physiological functions occurring during each phase.

Light non-REM sleep accounts for about 50% of total sleep time. It is a transition stage between being awake and being asleep.

During deep, non-REM sleep growth hormones are produced and body tissue is repaired.

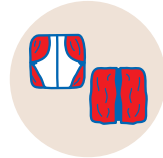
REM (rapid-eye movement) sleep is when you dream and perform neuropsychic repair processes:

- It helps the brain store acquired information in the long-term memory.
 - It lets you “do the filing”; sorting out the information received during the previous day.
 - Dreaming lets the brain relieve the tensions which build up during the day so that it can focus more effectively on acquired information.
- It is, in fact, true to say that **“Things always look better in the morning”!**



SMALL CHANGES, BIG DIFFERENCES

HOW TO GET A GOOD NIGHT'S SLEEP



Open shutters and curtains fully during the day to let in plenty of light, and close them fully in the evening to create the darkness essential for the secretion of melatonin.



Engage in physical activity during the day, preferably outdoors to make the most of the daylight, but not too soon before bedtime so as not to increase your body temperature.



Do not consume stimulants at the end of the afternoon or in the evening.



Watch out for sleep signals and when you spot them go to bed.



Avoid screen time in the last 2 hours before going to bed, and make sure you can't see or reach a clock from your bed.

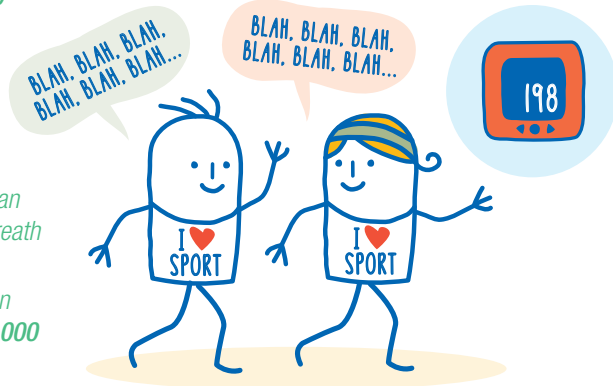


Let's get physical!

Exercise reduces the risk of developing osteoporosis, cardiovascular disease, type-2 diabetes and certain cancers. It also helps to prevent weight gain, makes you feel more relaxed and improves sleep quality¹.

Some guidelines

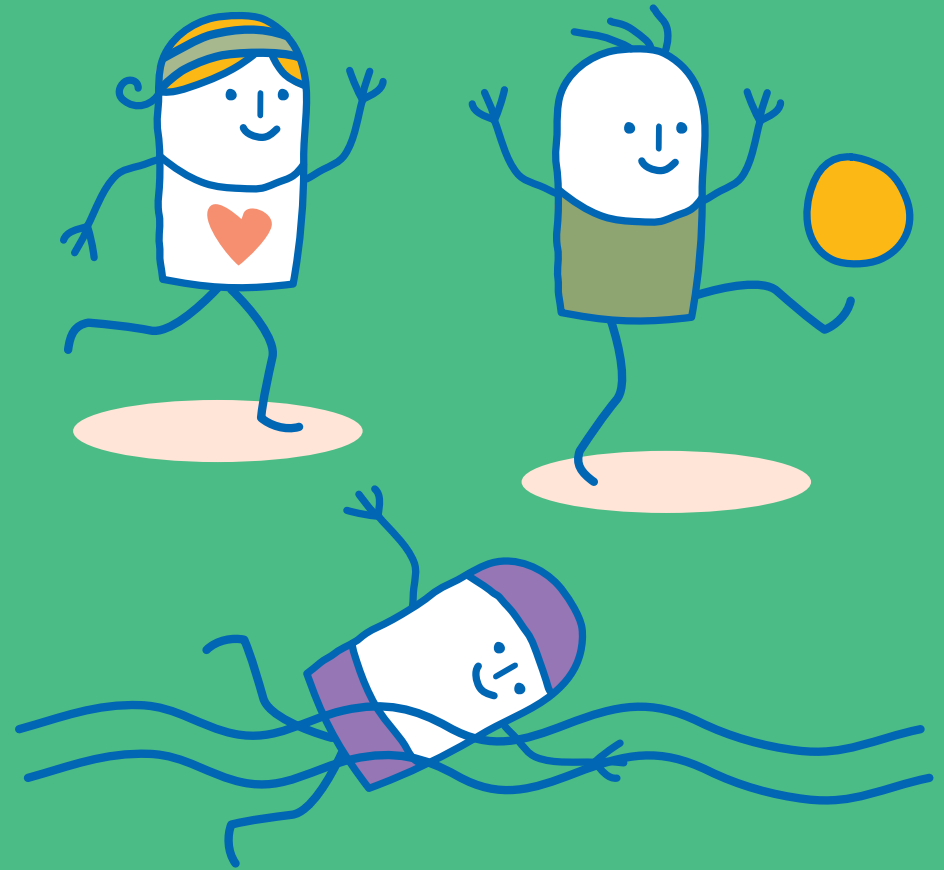
- "Regular" physical activity means: **30 min a day**.
- At a moderate pace (**slow and steady wins the race!**).
- In the morning on an empty stomach is the most effective.
- **More is not necessarily better!** Walk at a sustained but not intense pace, such that you can keep up a conversation without feeling out of breath
- **Get a pedometer:** it counts how many steps you manage in a day: less than 5000 steps is an indicator of a sedentary lifestyle; **the ideal is 7,000 to 8,000 steps a day as a minimum.**



(1) Lee, S., Kuk, J. L., Davidson, L. E., Hudson, R., Kilpatrick, K., Graham, T. E. & Ross, R. (2005) Exercise without weight loss is an effective strategy for obesity reduction in obese individuals with and without Type 2 diabetes. *J Appl. Physiol* 99: 1220-1225.
Dontas, I. A. & Yannakopoulos, C. K. (2007) Risk factors and prevention of osteoporosis-related fractures.

J Musculoskelet. Neuronal. Interact. 7: 268-272.
Paffenbarger, R. S., Jr., Blair, S. N. & Lee, I. M. (2001) A history of physical activity, cardiovascular health and longevity: the scientific contributions of Jeremy N Morris, DSc, DPH, FRCP. *Int. J. Epidemiol* 30:1184-1192.
Fonds mondial de recherche contre le cancer. Alimentation, nutrition, activité physique et prévention

du cancer: une perspective mondiale. 2007.
Lavie, C. J., Milani, R. V., O'Keefe, J. H. & Lavie, T. J. (2011) Impact of exercise training on psychological risk factors. *Prog. Cardiovasc. Dis* 53: 464-470.
World Health Organisation. Obesity: preventing and managing the global epidemic 2003.



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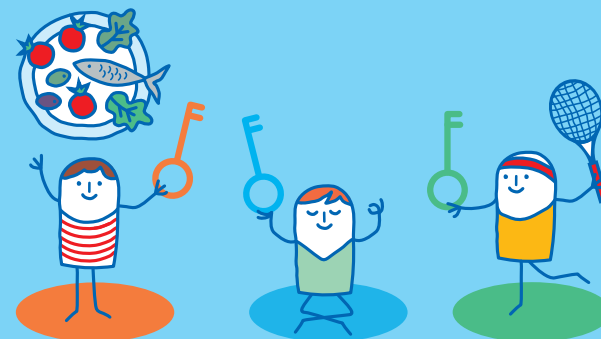
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The aim of the PiLeJe Foundation is to provide and promote knowledge and know-how about healthy living which individuals can apply both to help care for their conditions and to protect themselves from disease and poor health.

Right from the start, the Foundation has been supported by numerous partners operating in the health field who continually advance our shared understanding of lifestyle habits.

For information about the dates of conferences or public debates, advice and practical tips and even some recipe ideas...

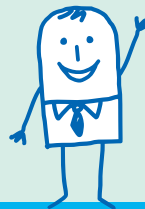
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The PiLeJe Foundation and the press department www.destinationsante.com have combined to make available a collection of health recipes created by leading chefs in addition to full-day health menus developed by a medical dietician.



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