LONG & HEALTHY LIFE

COORDINATION:
ANA RODRIGUES, HELENA CANHÃO, JAIME C. BRANCO, MARIA JOÃO GREGÓRIO AND RUTE DE SOUSA
Long and Healthy Life is a practical handbook that aims to promote healthy living habits and the maintenance of an active and healthy life. It can be useful to all ages, but because there is less information available, it is especially directed at adult and senior population. It consists of five introductory chapters that intend to raise the awareness of the reader to this issue. After that, we invite you to participate in a 12-week program towards a healthy lifestyle.

Every week we discuss a food theme (water, dairy, vegetables, pulses, among others) with advice from nutritionist Maria João Gregório, recipes from chef Justa Nobre and physical exercises from teachers Renato Lopes and Rita Fernandes.
To keep your mind sharp, we created weekly memory, language and math exercises, compiled by psychologist Rute de Sousa. We also present reminders and quizzes that will help you recall the previously addressed issues.

There is also “Expert Corner” with a specialist that will bring us a new topic with every chapter, all of them with great interest for seniors and their families. Safety, sleep, sociability, vision, sexuality, hearing, oral health and other topics are present in this handbook.

Renowned authors, that enrich significantly this healthy lifestyle-promoting program, have contributed to each of the discussed issues in this space.

We want this handbook to be informative, practical and helpful and that you enjoy it, preparing recipes and working out with the entire family.

Live better with more health!

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Introduction

START BY READING ABOUT WHAT IS A HEALTHY LIFE

DO IT TODAY!
European countries are facing, like other regions in the world, a new challenge, very different from everything that has been experienced until this moment – an ageing population.

There are several causes to this positive challenge: less tough work, better living conditions, better nutrition in the youthful years of the elderly, better treatment for many diseases, among others. All these factors appear to have contributed for the rising number of years we live, therefore increasing the number of seniors living in European countries.

The challenge is not so much the question of the ageing population, but the fact that with older age we anticipate a higher probability of increasingly worse health related to chronic illness and, in due time, frailty and vulnerability syndrome. Threats like those described above require new intervention tools. These new tools are new ways to think about health: we should invest in health promotion, health maintenance and disease prevention.
In fact, both health field stakeholders and the general population have been focused, for too long, almost exclusively in disease, and very little in health.

It is of the utmost importance, for the elderly and for the sustainability of European healthcare systems, to keep individuals healthy for as long as possible during old age.

Good health in seniors start with healthy living for all their lives. Promoting health in individuals, groups and societies seems to be the path to follow.

The concept of health promoting has been largely misunderstood or misinterpreted in many societies and different moments. In medical practice, we have been seeing health promotion being interpreted as an integral part of, or even as being identical to, disease prevention or similar to current preventive medicine. However, health promotion has little to do with disease. Health promotion is defined as a theoretical framework related to the process of keeping or improving good health.

Health is a social construction, more than a medical one. Over the last 30 years, especially after the creation of the Ottawa Charter, health promotion has gained its importance in the individuals’, groups’ and societies’ efforts to achieve a better health.
Several research studies in the last few years have shown that the relation between health and absence of disease is lower than what was previously thought. One example is a research work that demonstrates that women aged over 80 with an average of three chronical diseases claim to have good health. In the Ottawa Charter (1986), health promotion was defined as “the process of enabling people to increase control over, and to improve, their health”. Disease prevention has, on the other hand, been defined by Mosby as “activities designed to protect patients or other members of the public from actual or potential health threats and their harmful consequences”.

Disease prevention is, as described by its definition, a way to think based on the attempt to identify strategies that could be capable to remove the development of the disease, whereas health promotion is a way to help people in their way towards a healthy life. Thus, there is a significant difference both in theoretical thought and empirical research in the health promotion field, when compared to disease prevention; however, they can be considered important complementary ways to work in public health. Research in the prevention field has been evolving in a consistent way based in epidemiological research; health promotion, being a more recent field of study, has yet to achieve the same results.

The goal of health promotion research is to study the crucial factors to strengthen the individuals’ and populations’ health, as well as identify the resources that characterize people and societies that strive for their good health. Knowledge that surges from the research in this field will be applied in the strengthening of the individuals’ actions towards their health, regardless of their health condition.
Health promotion has become, based on knowledge, an important approach to health challenges the world faces today, and a crucial part in the process of political decision and creation.

Salutogenesis (salut from the Latin “health” and genesis from the Greek “origin”) was a tremendous step towards the theoretical foundation for health promotion and the understanding of how health develops.

Over the last few years, the body of evidence regarding how to work effectively in the area of health promotion to ensure positive outcomes, as well as the development of methods that allow the implementation of effective strategies, have expanded and are increasingly more accepted.

As the theoretical and empirical evidences that support salutogenesis grow, partly due to the formidable work developed by Lindström, Eriksson and their colleagues and considering their remarkable ability to simplify difficult concepts and constructions (Lindström and Eriksson, 2010) and to disseminate the concept worldwide (e.g. Hichikers Guide to Salutogenesis is already available in seven languages), this is probably the most well-known concept used in the context of health promotion.

The International Union for Health Promotion and Education (IUHPE)’s Global Working on Salutogenesis group has also been an important driving force.
Health promotion research and activities can be supported in a variety of theoretical contexts (e.g. positive deviance, capacity, self-efficacy) and can have different focus on the context of application, for example, in local activities and local work or in the scope of public policy.

However, the common framework to all the research in this field is the attempt to identify the underlying factors that keep or develop the individuals’, populations’ and societies’ good health.

In the same way, knowledge in the health promotion field helps to advise and direct democratic decisions in societies.

Successful activities for health promotion, in a society, appear to rely on local engagement and decisions made by local authorities (municipalities, for example), but the thought behind health promotion, currently, is applied to all situations where people live, work or are for longer or shorter periods of time (schools, hospitals, workplaces, etc.). The diverse use of the driving thought of health promotion has been an important and successful step forward.

The fundamental change in the mind frame regarding the concept and definition of health promotion is, today, present in the entire society.
The idea of health promotion and the research in this field are, with the rapid ageing of population around Europe, an almost inevitable way to think of a positive commitment to allow healthier choices and build a healthy elderly population in our region and everywhere else.
According to the report published in June 2016 by INE – National Institute of Statistics (Statistics Portugal), the total population of Portugal by the end of 2015 was 10,341,330 individuals. Compared to 2014, there was an increase of both natality (3.8%) and mortality (3.5%).

However, Portugal is still one of the most aged democracies in the world, and this scenario is getting worse. The average lifespan is also rising (Table 1).

Table I. Average lifespan in Portugal (in years). Source: INE, 2016.

<table>
<thead>
<tr>
<th>PERIOD</th>
<th>GENERAL</th>
<th>WOMAN</th>
<th>MAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003/2005</td>
<td>77,72</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2013/2015</td>
<td>80,41</td>
<td>83,23</td>
<td>77,36</td>
</tr>
</tbody>
</table>
Calouste Gulbenkian Foundation’s report – “The Future for Health in Portugal – Everyone Has a Role to Play” – published in September 2014 has revealed, along with many other results, that Portugal faces a huge increase of non-transmitted chronic diseases – diabetes, neurological diseases, rheumatic diseases, cardiovascular diseases – and that our elderly are among those with less health and the least amount of healthy life years (between 65 years and death) in Europe. These are the main problems the Portuguese National Health System (SNS) faces and one of the critical factors to its financial difficulties.

Therefore, old age is mostly associated with negative facts, like physical and mental disease, functional deficiency and correlated dependency, social disinsertion and economical insufficiency.

In this context, health and well-being conditions of the elderly must be evaluated and monitored bearing in mind its improvement and resulting increased quality of life.

If the concept of health is already well established, distinguishing between physical and mental health, the expression “well-being” is mostly subjective, broadly defined, subject to several influences and with multiple dimensions. In fact, well-being, as a synonym of happiness, can be studied with tools that evaluate quality of life.

The ageing process is responsible for many and profound shifts – physical, mental, social – and the ones that characterize old age are responsible for the biggest changes occurred during the life of an individual to whom it is demanded a huge adjustment to recent, and so often harsh, realities of life – widowhood, sickness, disability, poverty, institutionalization, insecurity, uncertainty, violence, etc.
The factors that influence well-being can be inherent to the individual – personality, habits, education, morbidity, age, gender, functional capacity – or external – housing, family, caregivers, economical capacity.

It is part of the ageing process the development of a number of chronic diseases (for example high blood pressure, diabetes, rheumatic disease) that, if well managed, don’t restrict the good organic functioning or the necessary functions necessary for the individual to think of himself as healthy. Furthermore, the perception of health in the senior is individual and dependent of many factors, namely the expectation that one has of that singular experience.

Even with no important and/or unbalanced diseases, the simple fact of getting old represents several declines: sensorial (sight, hearing, touch...), organic (for example, cardiovascular, musculoskeletal, respiratory), cognitive (attention, focus, memory, etc.) and vital functions (for example motor, intellect, perception).

These deficits undermine the ability to relate with others and the performance of physical and mental efforts, and impair the individual, more vulnerable to morbid events that threaten life (such as falls and infections).

A recent study from Age UK identified five different determinants to the mental health and well-being of the elderly:
1. Discrimination (due to age);
2. Participation (in civil, social, cultural, economic and political life);
3. Relations (with family, friends, neighbours);
4. Health (physical and mental, as well as access to good healthcare services);
5. Financial capacity.

These five variables are correlated and, when favourable, have a decisive impact in personal self-esteem and in good social integration and interaction. They are therefore crucial for seniors’ happiness and well-being.

The World Health Organization (WHO) pays, for more than three decades now, special attention to the world ageing tendency and seniors’ well-being. For this reason, five dimensions of well-being that must be evaluated globally and are intimately related were defined (see Table II, page 28).

These five dimensions – daily life activities, mental health, physical health, social support and financial status – must be included in all global evaluations of older individuals.
The senior individual’s health and well-being mostly depends on their independence, resulting of the functional capacity, which corresponds to their physical and mental conditions.

Other than the healthy lifestyles that each person should have throughout the years (for example smoking abstention, alcohol moderation, maintenance of a normal weight), in older ages there are some cautions related to health keeping that must be adopted to ensure more years of living with a good quality of life.
As a final note, seniors must, as much as possible, grow healthy lifestyles and keep themselves physical, mental and relationally actives. If so, they will have better health and well-being guarantees.
III. What are the challenges for a healthier diet?

Pedro Graça
Director of the Directorate-General of Health’s National Program for Healthy Eating • Professor at University of Porto’s Faculty of Nutrition and Food Science

Inadequate diet is the main factor for the healthy life years lost by the Portuguese population.

Healthy eating throughout the years means following some basic principles found in the food pattern of the Mediterranean people, our ancestors, that guaranteed them health and longevity. Meaning:

1. Eating only what is necessary and cooking simple meals, based in culinary preparations that protect the nutrients, such as vegetable soups, stews, casseroles and boiled dishes;
2. Consuming a larger quantity of vegetable products over animal origin ones, namely through the daily consumption of vegetables, fruit, good quality bread, unrefined cereals, fresh and pulses (beans, chickpeas, peas, lentils), nuts and oilseeds, such as almonds, walnuts or hazelnuts;

3. Eating locally grown vegetable products, fresh and in season;

4. Consuming olive oil as the main source of fat;

5. Consuming milk and dairy, such as yoghurt, in moderation;

6. Utilizing spices to season food, instead of salt;

7. Eating fish more frequently and moderating the consumption of red meat (pork and beef);

8. Lowering or moderating the consumption of wine, and only drinking it with your main meals;

9. Reducing the consumption of sweets (particularly pastries, confectionary products and sweet drinks) and foods or meals with excess salt;

10. Giving preference to water as your main drink throughout the day;

11. Encouraging the interaction and good mood around the table.
Other than this general principles, the eating of seniors can be adjusted to specific situations, such as difficulty swallowing (for example preferring porridges and soups or pureed food mixed with sauces to boost flavour), the lack of appetite (that can be fought using pleasant and stronger flavours – without resorting to excess salt – with soft textures and an adequate temperature) and also having different dishes during the week, with appealing colours and appearances.

During certain periods, oral supplements can be used, meaning, formulas with high calorie content, enriched and fortified with other foods and nutrients, such as vitamins and minerals. These supplements and the supply of highly nutritional foods are crucial to avoid malnutrition and weight loss, having as a general reference the non-intentional weight loss of over 5kg in six months.

Malnourished patients have a greater risk of falls, fractures and pressure sores, and, in general, must be admitted in hospitals and care institutions prematurely, and for long periods of time. In many cases, malnutrition can be prevented with small routines, easily adopted throughout the day.

Eating breakfast, consuming 2 or 3 pieces of fruit during the day and vegetable soup for the main meals, eating meat and fish, in particular “fat” fish, and having milk, dairy and mixed grain bread present in your diet are examples of important foods for senior individuals.
To all this, it is necessary to add some culinary skill, essential to overcome the lack of appetite without turning to sugary or overly salted foods.

Another problem, common in this age, is dehydration, with serious consequences in the quality of life and the arising of diseases.

The lack of willingness to drink water, which increases with age, can be halted with its consumption in flavoured drinks with infusions, spices (cinnamon, vanilla…) or fruit, or even with high water content foods.

Seniors have vast culinary knowledge, which is an intergeneration asset. That knowledge can be considered immaterial heritage of the families. The elderly, as bearers of memories associated with food and food tradition, are necessary to our society cohesion and well-being, in need of collective history and memories to survive.
Apart from healthy eating and regular physical activity as determinants of the quality of life, it is fundamental to minimize the consequences of chronic diseases that appear sooner or later, through the detection of risk factors and good healthcare services. There, early identification of metabolic changes, such as high blood pressure, excess blood sugar, high cholesterol, overweight or high abdominal circumference is made.

We can start treating these problems early on, mixing lifestyle changes with appropriate medication, with the support of professionals with proper training and particular sensitivity to this special population.

This will be the food and nutrition path for a more fraternal and healthier society where, above all, eating can act a connecting and friendship link among people of different generations.
The increase in the average lifespan, as consequence of a better quality of life, progresses in medicine and medical assistance, as well as the decrease of the birth rate, may have had an effect on the ageing of the Portuguese population, which resulted in a new reversed age pyramid. Diet has a central role in ageing well, but also in the increase of the well-being and health of the elderly, promoting a support for disease control and gain of healthy life years.

Healthy eating is an investment to insure independence and a safe transition to old age. The concept of healthy eating can vary among individuals, being necessary to remember that today’s seniors lived with social customs very different from those we have today, which may affect the way they understand “eating well”. This concept can be, for some, represented by abundant eating with sugar, salt and fat rich foods.

On the other hand, some seniors understand that eating well means eating according to their physiological condition, and that sometimes it may be associated to a change in cooking.
The number of meals we eat throughout the day has a physiological impact. Dividing the food in an adequate number of meals is associated with cholesterol reduction, improvements in glucose tolerance, better weight control and a decrease in the tendency to fat deposition. An adequate number of meals along the day is also linked to a better diet quality in seniors.

Thus, eating distribution throughout the day is recommended for the multiple diseases prevalent in the elderly, such as type 2 diabetes. It should be noted that it is important that this eating does not exceed one’s daily energy needs, so it must be supervised by a dietitian. There are several factors that influence the number of meals eaten during the day, such as cultural, physiological and socio-economic, among others.

Meals are part of a social and cultural context, and among the seniors in Europe, the number of daily meals varies from 3 (Poland and Hungary) to 6 or more (Switzerland and the Netherlands).

Traditionally in the southern European countries, namely Portugal, the largest proportion of energy is consumed at lunch.
Lunch and dinner are fundamental moments for the interaction between family members, and it is important that the elderly has company in these.

Eating in a calm and comfortable environment, accompanied by others (family, friends or caregivers), brings more joy and increases the appetite.

Other than lunch and dinner, breakfast is considered the most important meal of the day.

Daily consumption of breakfast, in seniors, is associated with a better diet quality and lower risk of developing type 2 diabetes, and a better control of appetite and blood sugar throughout the day. The absence of breakfast, with prolonged periods of night fasting, can raise the resistance to insulin (factor that may be associated with diabetes) as a response to food intake in the next meal, as well as the risk of obesity.

The period in which the meals are eaten can influence the cardiometabolic risk, namely in hormonal regulation and metabolism, thus the number of meals and their distribution along the day must be adapted to the specific needs of the elderly’s physiology.

Traditionally, one should have 3 main meals: breakfast, lunch and dinner, along with 2 or 3 light meals. Having 5 daily meals is also associated, in a significant way, to a higher fluid intake, decreasing the risk of dehydration. It is also important that regular meal schedules, which contribute to a higher comfort and appetite regulation of the elderly, are established.
An adequate diet has the power to promote health in the elderly and to give more life to life years.

Therefore, the main practical recommendations are:

1. To distribute daily eating into 3 main meals, mixed with 2 or 3 lighter ones, and avoid being more than 3h30 without eating;
2. Establishing regular meal schedules;
3. To drink water throughout the day – at least 8 glasses per day;
4. Having your meals in a calm and comfortable environment, accompanied by family, caregivers or friends, if possible.
It is established that an active lifestyle offers more health and quality of life. Several studies show that exercising regularly improves health and physical condition, helps in weight control and increases vitality.

To these benefits, some others – very important for mental health (anxiety, stress and depression reduction) – are added. They help overcome the worries of present times and increase self-esteem – the sense that one has of himself, which is fundamental to accept some changes dictated by age on his body or health and to not pay attention to negative judgments that others may have.

But we can profit even more if we are physically actives, since the probability of developing some diseases is lower – heart conditions, high blood pressure, cancer, osteoporosis, osteoarthritis and diabetes. There are also evidences of the role of exercising not only in the prevention, but also in the treatment of many old age diseases.
Physical activity consists in any body movement made by skeletal muscles, from which results energy spending in levels higher than the ones in rest, such as walking, swimming, gardening and doing chores. Physical exercise is part of physical activity and involves a structured and repetitive plan aiming to keep or improve one or more aspects of physical fitness.

So, what are the main types of physical exercise? Aerobic exercise, muscular strength, flexibility and balance, that are describe in table III (page 42).
Table III. Main types of physical exercise

<table>
<thead>
<tr>
<th>TYPE OF EXERCISE</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td><strong>AEROBIC</strong></td>
<td>Rhythmic exercises that mobilize a large part of muscle groups, strength the heart and help improving lung efficiency. They boost stamina and enable you to work for longer without getting tired as quickly. They help with weight control. The most benefic exercises are walking, running, swimming, hydrogymnastics and biking.</td>
</tr>
<tr>
<td><strong>MUSCULAR STRENGTH</strong></td>
<td>Exercises that involve the displacement of a body part or resistance (free weights, elastic bands) through muscular contraction. These exercises help you keep or increase muscle strength, necessary to move loads (grocery bags, climbing stairs), maintain articular stability and protect your joints by cushioning the impact when you walk, run or jump.</td>
</tr>
<tr>
<td><strong>FLEXIBILITY</strong></td>
<td>Stretching exercises that maintain or increase the range of articular movement, contributing to the increment of articular mobility, necessary to perform some day-to-day activities.</td>
</tr>
<tr>
<td><strong>BALANCE</strong></td>
<td>This kind of exercise is very important because it stimulate the sensors that “warn” us in situations of imbalance, avoiding the risk of falls and, therefore, of lesions and fractures.</td>
</tr>
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</table>
For muscular strength exercises in which we use the lower limbs, there are two important examples, but with distinct characteristics: doing it with your foot free or with both feet on the floor (Figure 1). In the first case, you can place a weight in your ankle (for example a pack of rice) and stretch your leg, strengthening the muscle(s) that act on that joint – in this case, the muscle in your anterior tight region, that extends the leg. You are working that muscle not only when stretching (concentric contraction) but also when flexing the leg, in a controlled way back to its initial position (eccentric contraction).

This type of contraction is very important for you to be able to stop the movement of your body especially when descending stairs or ramps, because with age comes a rapid decrease of strength. As for the exercises with your feet on the floor, you need to contract the muscles that act on several joints (hip, knee and ankle) in a coordinated manner, developing what is called functional strength, necessary to daily activities such as sitting or getting up from a chair and climbing/descending stairs.
The exercise program in this book presents you with plans to do at home throughout **12 weeks**.

**How to start?**

First, before starting, we suggest that you talk to your doctor to see if there is any contraindication. If you have any illness, its symptoms may be an obstacle to exercise.

For example, if you have a heart condition or high blood pressure, although these are low-intensity exercises, you will need advice from your doctor. He or she may suggest measuring your blood pressure before and after each workout session to control your effort.

If you have arthritis or arthrosis, pain may cause fear that you aggravate the pathology. You can select the exercises, avoiding the ones that aggravate it, and keep a pain register in the beginning and ending of the exercise.

Other deterrent to exercise is the lack of time, but, in general, people that make exercise a priority find the time and have a better management of their daily lives.

Because the benefits for your health aren’t immediate, you can begin by feeling excited but, to keep the program until the end, you'll need a strong will and discipline. So, make a commitment, first with yourself and then with us, that are committed that you live a long and healthy life.
Focus on the advantages that you will “harvest” in the long run and not on irrelevant obstacles others may point out (examples: you’ll sweat, mess up your hair, etc.). Some barriers may be overcome if you are organized.

Plan your week and mark on your calendar the day and time of your exercise. Chose a day when you don’t have demanding activities planned, such as going to the supermarket and lift heavy bags or taking care of someone.

As for time of day, some people prefer to exercise in the morning, before showering, and other in late afternoon, when they feel more energized. We recommend you chose a time of day when you’ll have plenty of time and won’t be interrupted.

Now that you’ve started your workout, we want to give you some important advice. Be on the lookout for “warning signs”. If you feel any chest pain, shortness of breath or dizziness, contact your doctor immediately. If you have a muscle pain or cramp, gently massage the area and stretch the muscle. During the exercise, you shouldn’t hold your breath, but instead breath normally.

You should pay special attention when doing strength exercises, inhaling when you relax your muscles and exhaling when you contract them. When working out, you should stop if you experience any acute pain or if you feel a stronger pain than usual in your joints.
After exercising, it is normal to feel some muscular pain or articular discomfort, but if after the workout the pain is very intense and extends for more than 2 hours, you have probably done too much, and you will have to do a smaller number of repetitions or sets next time.

Effort is always rewarded, but sometimes we don’t value it enough because we consider our achievements meaningless. If you gain the habit of keeping a record of your small accomplishments, you will see that in the end, the results were successful. Thus, in the beginning of the program, make a list with your physical limitations or incapacities and your mood. Keep a regular record of your progress. Write not only what you accomplished, but also how you felt.

Here are some examples:

“I’m already in week 5 and I’m strictly following the plan! Never thought it would be possible”; “Today I managed to go up and down the stairs without having to stop and my hearth didn’t beat as fast” or “Great! I went to the supermarket and was able to lift a heavy bag without feeling any hip pain”.

Reward yourself, celebrating each small achievement. These are some of the tools that’ll help you stay motivated throughout the program. In the end, make another list and compare it with the first one.

You’ll be surprised by making it to the end and by all the successes!
“My body is a garden, my will is the gardener.”

William Shakespeare
Something that characterizes humans is our access to language, the ability to create and retain images of the world, even when it isn’t immediately accessible to our senses. Understanding the function of objects, establishing relations and building our life story. With neurodevelopment, we increase our ability to resolve problems; through logical reasoning, we expand our memory of facts and phenomena, populate it with characters, always using language, which we diversify and enrich, translating and creating the complexity of life itself, social relations and work.

All of this allows us to better adapt to our environment. We use our senses to relate to the world, but that wouldn’t be enough to give it any meaning. Sensations and perceptions are organized in complex mental frames, that integrate different times, in coded learnings, in memory traces, mixed in feelings and always rebuilt, through new acquisitions and experiences.
That is how our cognition works, developing throughout our life, in a never-ending process. Like all process, cognition is dynamic, taking place from childhood to old age. But if we don’t exercise our faculties, what happens is they weaken, stop working and eventually become extinct.

Thus, the first golden rule is to always practice, never neglect what we know how to do, use our mind in an active and deliberate way in problem solving, whether in a game or in life relevant aspects.

The lack of use of our abilities doesn’t explain all the losses we may suffer, but explains a big part of them, and that one is clearly avoidable. We can’t stop the thinking process and we always learn by establishing new relations, between the things we already know and what it is new, what we look for and what we find, even if we don’t mean it.

Our identity, what defines us, are personality traits, but also our cognitions, the memory of ourselves, the memories of others we have in ourselves, what we know, what we think, our more or less diversified language, what we communicate, what we understand about others and the world, what assures us the autonomy we fought so many years to achieve.
There is no autonomy without thinking, without reasoning ability, without appreciation of us and of what surrounds us, and that is a supreme value of each life, it is the value of life we don’t want to lose.

Memory, language, the ability of making decisions, are values worth preserving and actively treasure. How can we do it?

First, we should understand our own attitudes towards ageing: what it is and what happens to our cognitive ability. Our beliefs create preventive or risky behaviours, according to whether we believe we can age with quality, with minor ability losses, even if the processes may get slower or, by contrary, we believe that the decline, namely in cognitive functions, is inevitable. In this case, motivation to assume pro-health and prevention behaviours is low and (avoidable) decline installs.

When we think of activities that help us increase or maintain cognitive ability, there are two big alternatives: the first is to participate in organized cognitive stimulation programs, with planned exercises that stimulate several aspects of cognition; the second is to enrich our daily life with meaningful activities that stimulate those same aspects.

Mixing the standard programs and the enrichment of daily activities is a third path that may be very fruitful.
“LONG AND HEALTHY LIFE” is a good example of the first alternative, which consists of specific programs. Filling your daily life with fulfilling activities, in which each one of us must be the programmer and the target, searching meaningful activities, is the goal for the second alternative. There are simple things you can do, such as writing letters, that can be emails or stories, reports of your intimate life or of trivial subjects, cooking recipes or deep thoughts: putting letters together, giving them a purpose, finding meanings and synonyms.

We should diversify our activities and behaviours, because there are always alternative paths. Doing the same repeatedly only makes us better at that task and does little to help us in what really matters, applying what we learned in all the domains of our life. Do you like movies? Go to the cinema or watch them on the TV, but summarize the movie when talking to your friends, or do it for yourself, in writing. More of a reader? Do it with the short stories, or the novels, or your life stories. Everybody loves a good story, whose reality is irrelevant, as long as it lives in our imagination and we can share it.

Find pleasure in completing puzzles, doing cross-words or sudoku. What about doing a complex embroidery (a small one, so you don’t get bored!), following a design, or daring to create whatever comes to mind? You no longer must prove anything to anyone, you only answer to yourself and, believe us, you are the lead actor of your life. Your ageing process is mostly your responsibility.
Bet on self-determination: keeping control of our life is the key task of the ageing process.

Regarding cognition, try to do the things you like, because those are the most pleasurable and sustainable activities to perform throughout time. Taking care of your mind is taking care of yourself.

Ageing brings you a heritage of things, good and bad, as well as the distance that gives us perspective about memories. But for that to happen, it is necessary that we are mentally active, that we recognize ourselves as willing subjects – in the past, present and future – of our life. That is the main point of the cognitive exercise.

Remembering where we put our home keys, if we already took our medication and more elaborate and deep behaviours about people or events is part of our daily lives.

Take notes, register events – the big ones, but also the small ones –: that helps with your memory, practices writing and language, exercises visual perception and fine motor skills, and helps you organize, with a disciplined and active mind. And, every time you need them, your notes will be there.

There is another essential dimension of the process: social activity. Cognitive exercising in a group or community context, sharing opinions and conversations, joys but also worries, explaining what you feel in our common humanity – even if we make individual choices, based on our unique history and reasoning, expressed in our language.
Let’s cultivate our mind, our attitudes and our values in front of our life and the world we should observe, express, defend, in our community, as subjects of word, in this time that is ours:

Remember yourself to remember, to write, to speak out, because that is the only way of preserving your being.
The concept of innovation can be scary and makes us imagine a lab with people in white coats, mixing fluids and/or creating futuristic robots, as we see in sci-fi movies.

However, if we get out of his lab and look around us, we can debunk that concept and see that one doesn’t have to be a scientist or be surrounded by highly technological equipment to innovate. Innovate means to create something new or to change something that already exists, making it more efficient or functional.

Our interest and research focus on a specific branch of innovation, where the innovator is not the usual “suspect”, meaning that it’s not the researcher, the scientist or the engineer.
The innovator is a demanding consumer that adapts or creates a product that deals with a personal need. Recent research, in the innovation area, shows the users or consumers are pioneers in multiple innovations in several areas of the industry.

Each individual, facing a difficulty or disability, can innovate by creating a utensil or adapting a tool that helps him overcome the problem.

In the last couple of years, we have been working in identifying patients and non-professional caregivers that developed solutions to overcome an obstacle posed by an illness and/or health condition.

Up until now, we have found more than 650 solutions developed by citizens with diseases and needs that found solutions that allowed them to better deal with illness, improve their life quality and, in some cases, save their own lives.

As we listen to their stories, we saw the massive advantage of information and communication technologies in the quick access to sources of information in the most diverse areas.

These patients and caregivers used the internet to learn how to personalize electronical devices, such as wheelchairs or crutches, communicate with other patients to exchange ideas and support those who found themselves in the same situation.
Our premise is that the patients and their caregivers aren’t passive individuals in society, but resilient and proactive individuals that seek answers to their problems and don’t give up until they find a solution.

Products developed were surprising and, because of that, we interviewed more than 500 patients with rare diseases and caregivers, in Portugal, and asked them if they had ever created a solution to deal with their health condition.

The result motivated us and has captured the attention of both academics and the society: 40 (8%) of the individuals developed solutions, classified as innovative by medical specialists, for themselves. If we extrapolate that fraction to a world perspective, patients and caregivers are a big source of innovation in the health and well-being fields.

Patient Innovation platform, available online and with free access (https://patient-innovation.com) in Portuguese, English and German, works as a universal library of solutions developed by and for patients and their caregivers.

It is a space reserved to the exchange of knowledge, regardless of its inherent technological level, and its goal is to give more importance to the role of the patient and their caregiver, both in managing and in treating their disease.
From the multiple solutions available in our platform, we decided to share two as an example.

1. KANGAROO CUP

The first is the Kangaroo Cup. It was developed by a 12-year-old girl name Lily Born. The story begins when Lily noticed that her grandfather, who has Parkinson’s disease, would spill his drinks and got frustrated about it. She asked her father for help and developed a ceramic cup with three legs, which would allow her grandfather to drink without spills.

The solution is called Kangaroo Cup alluding to kangaroos, who use the two back legs and their tails to balance themselves.

Lily shared her solution online, creating a crowdfunding campaign to get her solution to the market. Once she gets there, her innovation will be available to anyone in the world.
Another example is the solution developed by Graham, a patient diagnosed with arthritis when he was only 17 years old. He underestimated the disease for a few years until he had to quit his job, when the symptoms began to show more intensely. Graham always loved to cook.

For him, it wasn’t a necessity or an obligation, but an enjoyable hobby. It was what made him happy, making everyone else happy too: selecting, chopping and seasoning the food and then serving it and share a meal with his family.

Progressively, the disease started affecting his movements, and his hands didn’t allow him to hold and chop food in the same way.

The thing that once made him happy was starting to get him weak and frustrated.

“Pain you can treat, for me it was the sense of loss that was the hardest to deal with” the inventor observed. But Graham didn’t give up and decided to design a cutting board and some kitchen knives that would allow him to execute the tasks and, at the same time, compensate the pain and weakness of his muscles and joints. These tools allow him to chop vegetables without so much pain and with the same precision than before.

These and other examples shared by the members of the Patient Innovation community can urge others to better deal with less favourable health conditions.
CHALLENGE

Think about your daily routine, since you get up until you go back to bed. Have you ever modified an object or created one that helped you and/or allowed you to perform a task or activity?

If so,
Or if you aren’t sure, tell us about it in the webpage dedicated to the exchanged of knowledge we created (https://www.patient-innovation.com) and/or send us an email to info@patient-innovation.com.

If not,
There’s no problem, go to https://www.patient-innovation.com (our webpage) and help our patient innovators improving their solutions or simply give them your opinion. Your problems can be the same as others’ who already developed solutions to handle them.
Program for a healthy lifestyle in 12 weeks

START TODAY!
Several factors determine the health state of an individual: non-modifiable (age, sex, genetics); socioeconomics (poverty, employment, social exclusion); environmental (air quality, water quality, social environment); access to services (education, health, social, transportation); and lifestyle (diet, physical activity, tobacco, alcohol).

In the last few years, lifestyle assumed a very important role all around the world, because they are an important cause for the development of chronic diseases (high blood pressure, diabetes, dyslipidemia, heart diseases, respiratory diseases). In fact, chronic diseases are getting more prevalent, particularly in old age, and represent about 60% of all causes of death.

Unhealthy diet, physical inactivity, smoking and excess alcohol intake explain, for the most part, this growing trend in the increase of chronic diseases, and are equally involved in avoidable premature deaths and disabilities.
However, changing lifestyles as an adult is a challenge!

During our adult life we create dietary habits and routines that become firmly rooted and are very difficult to modify, even if we know they are not the best options for our health.

Saúde.come’s team built a healthy lifestyle promotion program, thinking of you, who are in a stage of your life in which your body and mind are suffering some changes (grey hair, less agility and more memory losses), you feel your health is more fragile and life is a precious asset.

We decided to share the program here, in the “Long and Healthy Life” book, but we consider that this program can be made available in a variety of formats, TV, mobile apps, online, etc. We are in fact testing the validity of this program as a mobile app currently, and the results are promising.

Our 12-week program intends not only to help you modify your lifestyle but also to improve your memory, sight, hearing, sexuality and access to healthcare, among others, so that you can have a healthy life.
It can be used for those who already suffer from chronic diseases and want to have a better control over them, but also for healthy individuals. Before beginning this program, you should consult with your doctor to see if light exercise is contraindicated for you or if you have any restriction or allergy that prevents you of eating any food.

We want to improve several aspects of your health and that’s why we built this program, educational and motivational, in the form of a “Long and Healthy Life” program that qualifies you for a Diploma of Merit and has a duration of 12 weeks.
Each week we will talk about a different topic associated with a healthy diet.
This “course” has 5 subjects:

“Nutrition Tips” are theoretical classes, where dietitian Maria João Gregório will teach you how to have a healthy, varied and low-cost diet. Each week we’ll talk about a different topic related to healthy eating.

“Cooking Healthy” are practical classes. Chef Justa Nobre created these recipes thinking about you and wants to teach you healthy, cheap and easy to make meals.

“Move your body” are practical classes designed by gym teachers Renato Lopes and Rita Fernandes that were reviewed and validated by physicians. Each week you’ll find a group of exercises that must be done and repeated three times in different days of each week.

“Exercise your brain” is also a practical subject. We want to keep your memory, language and focus sharp, so each week we deliver some fun games you should play, with no apprehension. These games were created by psychologist Rute de Sousa.

“Expert corner” is a theoretical subject where we’ll address several topics that are fundamental for health, such as sight, hearing, sexuality, sleep, safety and access to healthcare, having invited several experts in the area.
During this program, “Long and Healthy Life”, you will also have 3 moments of self-evaluation that aim to test the knowledges you acquired and to validate if you did the changes in your lifestyle that we suggested.

In the end, you’ll have access to a Diploma of Merit!

No matter the reason that motivates you to read the next pages of this book, we want to remind you that you have an entire team (doctors, dietitians, physical therapists, psychologists, chef, gym teaches, etc.) supporting your decision!

We know you’ll be successful and we hope that this success brings you a lot of health!
“Long and Healthy Life”

PROGRAM PLAN
Shall we begin?
We support you!

The Editorial team
Week 1

VEGETABLES YOU SHOULD EAT, SO THE GOOD SHAPE YOU CAN KEEP

- **Nutrition Tips:** Vegetables
- **Cooking healthy:** Cauliflower and Carrot Cream Soup
- **Move your body**
- **Exercise your brain:** Language Exercise
- **Expert corner:** The importance of socialization, combat to isolation and leisure activities

Week 2

8 WATER GLASSES A DAY KEEP THE DOCTOR AWAY

- **Nutrition Tips:** Water
- **Cooking healthy:** Strawberry Lemonade
- **Move your body**
- **Exercise your brain:** Body scheme Exercise
- **Expert corner:** Live Safely – advice from the National Republican Guard

Week 3

FROM BABIES TO GROWN-UPS, MILK HAS PLENTY OF ADD-UPS

- **Nutrition Tips:** Milk and Dairy
- **Cooking healthy:** Crème Brûlée with Reinette Apple
- **Move your body**
- **Exercise your brain:** Calculation and arithmetic Exercise
- **Expert corner:** Have a good night’s sleep
FOR A DINNER OF GOOD STUFF, A DROP OF OLIVE OIL IS MORE THAN ENOUGH

Nutrition Tips: Olive Oil

Cooking healthy: Codfish and Broccoli Millefeuille

Move your body

Exercise your brain: Memory Exercise

Expert corner: Lifelong Sexuality

THEY SAY TO EAT FRUIT FROM THE SEASON... AND THEY HAVE ALL THE REASON!

Nutrition Tips: Fruit

Cooking healthy: Fresh Fruit and Yoghurt Bowl

Move your body

Exercise your brain: Memory Exercise

Expert corner: Oral Health

PLENTY, JUST ENOUGH, MAYBE, SALT IS A TRICKY ENEMY

Nutrition Tips: Salt

Cooking healthy: Stewed Grouper with Peas

Move your body

Exercise your brain: Attention Exercise

Expert corner: Ageing and sight
### Week 7

**SWITCH BETWEEN MEATS, EGGS AND FISHES AND CREATE BEAUTIFUL DISHES**

- **Nutrition Tips:** Eggs
- **Cooking healthy:** Stewed White Beans with Poached Egg
- **Move your body**
- **Exercise your brain:** Attention Exercise
- **Expert corner:** Ageing and hearing

### Week 8

**VEGETABLES SOUP AT DINNER AND LUNCH IMPROVES YOUR WELL-BEING A GREAT BUNCH**

- **Nutrition Tips:** Vegetables soup
- **Cooking healthy:** Farmer’s Soup
- **Move your body**
- **Exercise your brain:** Memory Exercise
- **Expert corner:** Falling and fracture prevention

### Week 9

**EAT VEGETABLES PLENTY, KEEP YOUR BODY WEALTHY**

- **Nutrition Tips:** Fruit and Vegetables
- **Cooking healthy:** Roasted Vegetable Salad with Autumn Flavors
- **Move your body**
- **Exercise your brain:** Attention Exercise
- **Expert corner:** Polymedication and therapeutic adherence
### A Proper Stew Is a Decent Meal... or Two!

**Nutrition Tips:** Stews  
**Cooking healthy:** Rabbit Stew  
**Move your body**  
**Exercise your brain:** Language Exercise  
**Expert corner:** Warnings for periods of extreme temperatures: heat waves

### So My Health I Can Improve, Sugar From My Life I’ll Remove

**Nutrition Tips:** Sugar  
**Cooking healthy:** Oat and Flaxseed Curd with Cinnamon  
**Move your body**  
**Exercise your brain:** Language Exercise  
**Expert corner:** Food safety and Hygiene

### A Plate Full of Beans to Feel Like When We Were Teens

**Nutrition Tips:** Pulses  
**Cooking healthy:** Squid “Feijoada” (Bean Stew)  
**Move your body**  
**Exercise your brain:** Body Scheme Exercise  
**Expert corner:** Ageing in Europe – an overview
Vegetables you should eat, so the good shape you can keep
Here you will find 12 suggestions to help you make your diet healthy. This week, we will drive you to the wonderful world of vegetables.

**Vegetable products are fundamental to a healthy diet.** The daily consumption of adequate quantities of vegetables helps us to reduce a series of diseases, such as diabetes, high cholesterol, cardiovascular diseases, some types of cancer, but also overweight and obesity, since they are excellent suppliers of vitamins (A, C, K, vitamins of B-complex), minerals (calcium, iron, potassium, and magnesium) and fiber, and yet poor in fat and calories. Its consumption also helps to regulate the intestinal transit.

**Prevents:**
- Diabetes
- High cholesterol
- Thrombosis
- Obesity
- Intestinal transit problems

Therefore, the number one rule for a healthy diet is to consume vegetables in adequate quantities.
According to the Food Wheel (see figure 1), it is recommended a daily intake of 4 vegetable portions (one portion is equivalent to two cups of raw vegetables or one cup of cooked vegetables) for the general population.

**To reach this goal, you can simply start every lunch and dinner with a rich vegetable soup, and always include a salad or other vegetables as a side dish for the two main courses.**

Figure 1.
However, remember that one of the golden rules of a healthy diet is to know how to vary between the different foods of this group since each has a different nutritional composition. Only by changing things up can we make the most of their properties.
For each of the 12 selected weeks, there will be a simple, cheap, healthy and easy meal. Today we have for you a delicious cauliflower and carrot cream soup.

ATTENTION!
Do not forget that soup is an excellent way to include vegetables in your diet.

**INGREDIENTS**
- 1 LITER OF WATER
- • 500g OF CAULIFLOWER
- • 100g OF SHREDDED CARROT
- • 1 SMALL TURNIP
- • 1 SMALL ONION
- • 1 GARLIC CLOVE
- • 4 TEASPOONS OF OLIVE OIL
- • 1 TEASPOON OF SALT
1. Cook all the ingredients (except for the olive oil and carrot) for 20 minutes with 1 teaspoon of salt.

2. After that, add the olive oil and blend the soup until it becomes creamy.

3. In the end, add the shredded carrot, previously boiled for 30 minutes.

Nutrition Information per portion (300g)

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<tr>
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<tr>
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<td>4.25g</td>
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<tr>
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<tr>
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<td>3.06g</td>
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Part of the secret of longevity is to maintain an active life. Fatigue, aches, and even age are often excuses not to do physical exercise, but regular physical activity is crucial to prevent some diseases and ensure flexibility and mobility, improve balance, maintain good energy levels and good mood.

As time goes by, it becomes even more important to have an active lifestyle, because the older you are, the more your need to keep your muscles strong for everyday life activities. The exercise plans in this book were designed with the goal of improving joint mobility, muscle strength, marching speed and balance. These are very simple exercises that can easily be done in your home. If any of the exercises cause pain or discomfort it should not be performed.
DO YOU KNOW THAT...

The practice of physical activity should always be carried out with comfortable clothes and suitable footwear, to facilitate the movements and the realization of all the exercises in the best conditions. The footwear should preferably have a flat and non-slip sole and should provide full foot support to help maintain balance.

DO NOT FORGET TO SEE THE DOCTOR BEFORE STARTING THE EXERCISE PLAN!
WARM-UP EXERCISES

The workout always starts with some warm-up exercises. The warm-up exercises are necessary to guarantee a good performance of any workout.

**Perform warm-up in circuit mode (2 series of 4 exercises).**

- **Exercise 1**
  4 front steps (forward / backward). Repeat this exercise 4 times.
  ![Exercise 1](image1)

- **Exercise 2**
  4 lateral steps (lateral march to both sides). Repeat this exercise 4 times.
  ![Exercise 2](image2)

- **Exercise 3**
  March in place and raise your arms up as you inspire for 1 minute.
  ![Exercise 3](image3)

- **Exercise 4**
  Body rotation for 1 minute.
  ![Exercise 4](image4)

Rest for 30 seconds

Repeat the whole series of warm-up exercises one more time.
TRAINING PLAN

⚠ ATTENTION!

For your safety, make sure the chair or sofa is on a flat surface. The height of the chair or sofa should allow you to sit with both feet on the floor and knees bent at 90 degrees. The chair may have support for the arms.

EXERCISE 1

1. Sit down on the chair or the couch and put your feet on the floor;
2. Lift both heels 15 times, as far as possible, keeping the toes on the floor;
3. Rest for 1 minute;
4. Repeat the whole exercise (that is, a series of 15 repetitions).

EXERCISE 2

1. Still on the chair or couch, put both feet on the floor;
2. Stretch and gently lower your right leg without lifting your thigh from the chair, 15 times;
3. Then, repeat the exercise with your left leg;
4. Rest for 1 minute;
5. Repeat the whole exercise (that is, a series of 15 repetitions with the right leg and then with the left one).
EXERCISE 3

1. Sit down on the chair or on the couch and put your feet on the floor;
2. Stretch and gently lower the right and left leg, alternately, without lifting your thigh from the chair, 15 times each leg.
3. Rest for 1 minute;
4. Repeat the whole exercise (that is, do one more series of 15 repetitions).

EXERCISE 4

1. Sit down on the chair or the couch and put your feet on the floor;
2. Raise your right leg to your chest 15 times, as if you wanted to bring your knee closer to your chest;
3. Then repeat the exercise with your left leg;
4. Rest for 1 minute;
5. Repeat the whole exercise (that is, 15 more repetitions with the right leg and then with the left one).

EXERCISE 5

1. Sit down on the chair or the couch and put your feet on the floor;
2. Raise the right and left legs alternately towards your chest, 15 times each;
3. Rest for 1 minute;
4. Repeat the whole exercise (that is, a series of 15 repetitions).
STRETCHING EXERCISES

For the training to be complete, it is necessary to stretch the muscle groups that have been worked.

› Exercise 1
FRONT THIGH STRETCHING: raise your heel towards your gluteus with the knees together.

REST FOR 30 SECONDS

› Exercise 2
STRETCHING OF THE POSTERIOR THIGH: stretch out the knee, directing your toes up.

REST FOR 30 SECONDS

Have you already finished the exercises?
Now, don’t forget to stretch.

EXERCISE 6
1. Stand in front of a chair, with your back to it;
2. Slowly lower the pelvis toward the chair seat as far as you can, not sitting down;
3. Slowly return to the starting position;
4. Rest for 1 minute;
5. Repeat the whole exercise (that is, a series of 15 repetitions).
Exercise 3
STRETCHING THE BACK: entwine your hands forward with your arms stretched out and let your chin approach your chest.

REST FOR 30 SECONDS

Exercise 5
SHOULDER STRETCHING: stretch one arm, trying to get near the elbow of the opposite shoulder. Pull with the help of the other arm.

REST FOR 30 SECONDS

Exercise 6
ARM STRETCHING: with the hand behind the neck, pull the elbow down and inwards.

REST FOR 30 SECONDS

Exercise 4
CHEST STRETCHING: raise and open your arms, up to the ears.

REST FOR 30 SECONDS

Practice at least 30 minutes and a minimum of 3 times a week.
The exercises featured in this chapter are a workout to your brain! Don’t worry if you experience difficulties completing some exercises! It is normal that some feel more difficult than others. Are you ready?

Regarding the first word presented mark the word that means the same and the one that represents its opposite.

**Beautiful** – pretty – ugly

**Horrible** – appealing – awful

**Talk** – speak – hush

**Difficult** – complicated – easy

**Tired** – exhausted – energetic

**Winner** – loser – champion

**Wealthy** – rich – poor

**Small** – big – tiny
<table>
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<td>chilly, warm</td>
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<tr>
<td>Fast</td>
<td>slow, quick</td>
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<td>stay, flee</td>
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<td>same, different</td>
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Begin – finish – initiate
Ferocious – aggressive – docile
Love – hate – worship
After – before – later
Sweet – sugary – salty
Right – wrong – correct
Close – separated – attached
Solid – rigid – liquid
Busy – free – unavailable
Question – query – answer
Inhabited – populated – empty
Expensive – pricey – cheap
Wet – dry – soaked
Strait – narrow – wide
Laugh – smile – cry
Above – under – over
Make – destroy – build
Hit – guess – fail
Polite – rude – educated
Shy – outgoing – introvert
Buy – acquire – sell
Guilty – innocent – responsible
Tidy – messy – organized
Curly – straight – wavy

GOOD LUCK!
Rute de Sousa
| KEY: |
|---------------------------------|---------------------------------|
| Curly - straight - wavy         | Expensive - cheap - cheap       |
| Tidy - messy - organized        | Inhabited - populated - empty   |
| Quality - incorrect - responsible | Question - weak - answer       |
| Buy - acquire - sell            | Busy - free - unanswerable      |
| Shy - outgoing - introvert      | Solid - rigid - liquid          |
| Police - rude - educated        | Close - separated - attach      |
| Hit - guess - fail              | Right - wrong - correct         |
| Make - destroy - build          | Sweet - sugary - salty         |
| Above - under - over            | After - before - later          |
| Laugh - smile - cry             | Love - hate - worship           |
| Straight - narrow - wide        | Ferocious - aggressive - docile |
| Wet - dry - soaked              | Begin - finish - initiate       |
| First - initial - last          | Slow - fast - gentle            |
| Long - short - lengthy           | Near - far - close              |
| Slim - thin - fat               | In - out - interior             |
| Night - nocturnal - day         | Strong - robust - weak          |
| Open - close - start            | Dark - clear - murky            |
| Soft - tender - hard            | Loud - silent - noisy           |
| New - recent - old              | Sadness - joy - sorrow          |
| Man - male - woman              | Equal - same - different        |
| Risky - safe - dangerous        | Escape - stray - flee           |
| Happy - glad - sad              | Fast - slow - quick             |
| Clean - dirty - neat            | Cold - chilly - warm            |
| Bitter - sour - sweet           | Good - kind - bad               |
| Small - big - tiny              | Wealthy - poor - rich           |
| Winner - loser - champion       | Tired - overworked - exhausted  |
| Difficult - complicated - easy  | Talk - speak - hush             |
| Horrible - appealing - awful    | Beautiful - pretty - ugly      |
Human beings are storytellers, of theirs and others’ stories. And it’s through stories we communicate, give meaning to life events, resolve issues and conflicts.

If we pay close attention to our daily routine, we spend a good portion of our time telling events in the form of short stories. The story of the person who drove carelessly and almost caused an accident, the one about your colleague who doesn’t cooperate in the project, the other at lunchtime when the waitress drop the plate and messed up your jacket, the one about the colleague’s son that got a job abroad, the one about the mother who calls worried about a symptom we showed the day before, and so many others. By the end of each day, we go to bed full of stories, each with its own emotions associated. Some will keep living in our dreams, disturbing our sleep, scaring us with nightmares, others are sweet and hopeful and help us rest.
And then we get up for a whole new day of stories. We are born, and the story, the history, gains a name: “Once upon a time... Jane, John...”. We cross-check our history with all the others in the world and, in that way, we learn so many behaviours and what is expected from us.

Stories are examples of behaviours and their “moral lessons” teach us about good and bad, about obstacles and resilience. The great stories of humankind are catalogues of behaviour possibilities, and the great writers anchored them in the classic works.

Stories are, thus, small moments of our lives, with more or less emotion, that are part of a bigger repertoire preserved in memory.

With this library we give meaning to our experiences and to our life, we try to understand how something happened to us, we search in others’ stories comfort for our sorrows, we compare them with our families’, friends’, acquaintances’ and even with the stories of people we don’t know. Remember yourself of a moment when, waiting for an appointment at the doctor, you started telling the story of your illness, and immediately other stories emerge, like duplicated stickers we offer to our companions of misfortune.
Happy stories are milestones in people’s lives. They are the ones we want to keep for future memory.

But all of them are part of life, our birth’s, that we were told and retold others, our childhood’s that reach us through our parents and family, and the ones we created from the moment we learn how to form words and sentences and to give meaning to the world and our experiences.

And around us there is no lack of stories, the stories of others and of the entire news world that chases us in permanent screens, of multiple sizes, from our mobile to the panoramic TV. Followed by images to make them more believable and replacing each other at an impressive speed. The news (meaning, the story) age in a few minutes. Our attention span jumps from one story to the next, combines them with our own and does all this without losing itself. And we also have the cinema, the movies, the TV shows, in an endless universe of stories of love, disaffection, war, relations, that we follow and that mark us in an imperceptible way, that constitute our entire universe of ways of being and doing.

And, despite all the novelty available, we can run out of stories to tell, or tell the same stories repeatedly.

We stop participating and we stop having events to tell, we bore ourselves or others, that already know everything we have to say. When stories die or are always the same they create habituation, no one wants to listen them, everyone knows them by heart. We get repetitive or, worse, boring.
That’s why it is so important to do activities that allow this story creation. We probably keep relationships so we can tell stories. We need someone to hear us and be a witness of our life, whether being the husband, the wife, friends, family or even the man in the coffee shop.

So, when we don’t get in touch with others, we stop telling stories, we isolate ourselves, we remain closed in our own moments with no one to listen. The space around us keeps getting shorter, our movements are smaller, we even suffer physically with this decrease of space and interaction.

The exercise of listening to others’ stories, whether directly or through the news, makes us feel and think, amazes us, move us and puts us judging the story. That exercise stimulates thinking, brings us to new dimensions. And we decide to believe in that story, or we get suspicious because of the way it was told or by who told us. Either way, we participate in our community, that comprises the other storytellers around us.

But we need to be careful about the stories we want to listen, and not pay attention to just one kind. If we only pay attention to crime and threat stories we end up convincing us they are more frequent and closer than what they really are, and fear holds us at home or in a limited life.
It is good to pay attention to happy stories, ours’ and others’, to small and big joys. From the person we helped with their groceries in the morning to the child that comforts a fan of a losing club.

The world is full of good moments that deserve to be told, and it is with those moments the world moves forward. It is the human nature to live in this community of stories we tell every day, and to discover, with our actions, new stories to tell.

Yes, it is necessary to live in order to tell, and not to forget that by telling, we live.
1. Get involved in the life of the people around you, whether they are family, friends, neighbours or just acquaintances from the coffee shop, health centre or other place.

2. Tell stories and listen to others’ stories and talk about them – daily events or something of your life. Share, according to your comfort level and intimacy with the person in question.

3. Your family photo albums can help you tell your happy stories, share them.

4. Use the knowledge of your family’s important stories, of resilience and accomplishment moments, as examples of behaviour or wisdom.

5. Pay attention to positive stories.

6. Put negative and catastrophic stories into perspective – after all they are not that frequent, and they are news because they cause a stir and create fear.

7. Discover what is new around you, whether it is a newly opened shop, a neighbour who moved in or a restaurant with a special menu.
8. Physical activity is a great way to interact with others and create stories, but for that to happen you can join a group of people or sign up to a club. And don’t confine yourself to classes, arrive early, be with your classmates, share the way home with someone who goes in the same direction, arrange schedules, join the shared events.

9. Dance. It is an effort that pays off, you’ll have music, a date, interaction. But dance for pleasure, don’t make it another evaluation moment. And you’ll see practice makes perfection.

10. Take care of your own business. Go shopping every day, if you can. Not only you’ll get the fresh produce, you’ll have fresh stories and news.
Week 2
8 water glasses a day keep the doctor away
It would not be news to you if we say that water is the main component of our body and is essential for life. However, would you know the amount of water that you should drink every day?

In fact, water is well represented in the Food Wheel. In this food guide, water is in the center of the wheel, precisely because it is essential for our health and to symbolize that water is present in every food.

We know that the daily recommendations for water intake vary between 1.5 and 2 liters.

Nevertheless, these recommendations vary according to innumerable factors such as age, gender, physical exercise, environment temperature and disease situations where there is a presence of vomiting, diarrhea or fever. The consumption of water-rich products, such as vegetables, fruit, soup and milk, also help.
Don’t forget that sodas and other sugary drinks, like fruit juices, although rich in water, are also lacking nutrients and are rich in sugar.

SO, THROUGHOUT THE DAY, ALWAYS GIVE PREFERENCE TO WATER!

We also know that with ageing comes, usually, a reduced feeling for thirst, which is why we should be more aware of dehydration signs such as the look of urine (intense color and smell), fatigue and headaches. All of these symptoms can be related to an insufficient intake of water.
A good way to monitor your hydration status is to check how you urine looks in the morning, which must be as close as possible to the look of water – colorless and transparent.

Lastly, do not forget to increase your water intake in periods of intense heat, even in heated environments during the winter.
RECOMMENDATION OF DAILY WATER INTAKE:

8 PER DAY

2 GLASSES FOR LUNCH AND DINNER

1 GLASS DURING BREAKFAST, MID-MORNING, MID-AFTERNOON AND SUPPER

Maria J. Gregório

EAT WELL!
The infusions, lemonades, and flavored waters are a good way to increase your water consumption. Make these drinks at home, without adding sugar. That way you are saving your money and protecting your health.

**INGREDIENTS**
7 GLASSES OF WATER • 1 GLASS OF LEMON JUICE • 1 GLASS OF PUREED STRAWBERRIES • 2 MINT SPRINGS • SWEETENER TO TASTE • ICE CUBES TO TASTE

1. Add all the ingredients in a jar, mix them and refrigerate.

**Nutrition Information per portion (200ml)**

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
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<tr>
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<tr>
<td>Protein</td>
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</tr>
<tr>
<td>Carbohydrates</td>
<td>6.84g</td>
</tr>
<tr>
<td>Sugars</td>
<td>6.70g</td>
</tr>
<tr>
<td>Fat</td>
<td>0.41g</td>
</tr>
<tr>
<td>Saturated</td>
<td>0.00g</td>
</tr>
</tbody>
</table>
In this week, we want to promote balance and muscular strength. Try these exercises.

WARM-UP EXERCISES

The workout always starts with some warm-up exercises. The warm-up exercises are essential to guarantee a good performance of any workout. See page 85 to guide your warm-up.

TRAINING PLAN

EXERCISE 1

1. Standing, bending the knee, tap the heel of one of your legs on the back of the thigh, maintaining this position for 30 seconds, then gently lower it. You can help hold the leg with the help of your hand;
2. Repeat the exercise with the other leg;
3. 🕒 Rest for 30 seconds;
4. Repeat the whole exercise (that is, do one more series of 30 seconds).

NOTE: You can hold the leg with the help of your hand.
EXERCISE 2

1. Standing, bending the knee, tap the heel of one of your legs on the back of the thigh, then gently lower it, 15 times;
2. Repeat the exercise with the other leg, 15 times;
3. Rest for 30 seconds;
4. Repeat the whole exercise (that is, do one more series of 15 repetitions).

EXERCISE 3

1. Standing with your arms in front of your thighs, raise your hands above head level and go back down to the starting position, always keeping your elbows straight;
2. Repeat this move 15 times;
3. Rest for 30 seconds;
4. Repeat the whole exercise (that is, do one more series of 15 repetitions).
EXERCISE 4

1. Standing, raise your right arm up to the level of your head and gently lower it to the initial position. Keep your arm straight;
2. Repeat the movement, now with your left arm;
3. Repeat the previous two exercises alternately, 15 times for each arm;
4. Rest for 1 minute;
5. Repeat the whole exercise (that is, do one more series of 15 reps for each arm).

EXERCISE 5

1. Standing, lean your right hand on your left knee, bending your legs slightly. Then, in a diagonal movement, stretch the arm over your head. Make this move 15 times;
2. Repeat this movement, now touching with your left hand on your right knee;
3. Rest for 30 seconds;
4. Repeat the whole exercise (that is, do one more series of 15 repetitions for each hand).
EXERCISE 6

1. Standing, take your right arm to your left knee and your left arm to your right knee, simultaneously bending your legs a bit;

2. In a diagonal movement, stretch your arms above your head. Make this move 15 times;

3. Rest for 30 seconds;

4. Repeat the entire exercise (that is, do one more series of 15 repetitions).

Drink water during and after your workout.

STRETCHING EXERCISES

Now that the training is complete, it is necessary to stretch the muscle groups that have been worked. See page 88 to guide your stretching exercises.

GOOD TRAINING!
Rita Fernandes
Use your body to execute the following instructions.

- Clap with your eyes closed;
- Point to your eyes;
- Touch your left elbow with your right hand;
- Point to your mouth;
- Show your teeth;
- Rise your left hand then your right hand;
- Touch your left ear with your right hand;
- Touch your left knee with your right fist;
- Close your eyes and use both hands to cover your face;
- Frown.

GOOD LUCK!

Rute de Sousa
Did you know that the intervention of the Republican National Guard (GNR), in protection the population, starts with a policing model adequate to current challenges?

GNR, as a **human, close and strong force**, has been adjusting its intervention by placing the defence of citizens’ rights as its priority, involving them in choosing their own fate.

Through the **“Support 65 – Seniors Safety”** program, GNR has been trying to guarantee better safety and tranquility conditions to the elderly. In this context, GNR has been developing a group of actions of awareness to the senior population, yearly, through personal contacts and meetings, aiming to advise them about safety procedures, namely in scam situations and home robberies, to promote a sense of safety in this population, who is the most affected by this type of criminality.
Thus, it helps to develop the knowledge of safe behaviours that allow the seniors to gain the necessary trust for an active life, which will contribute to reduce the social isolation and increase their sense of security.

**HOW THE SCAM ARTISTS OPERATE:**

Their operation is simple and effective: they are well-dressed people (suit and tie), with calm and friendly voice and a captivating and convincing story leading the victims to do what they don’t want.

Some claim to be representatives of a social support service who want to help the seniors, being available to exchange money because the bills lost their validity or are being taken out of circulation. Others say they are bank employees and are there to replace the debit card for a new one. After having the card in their possession, they ask for the pin and run away.

There are also some that present themselves as family and, justifying the approach with the delivery of packages, demand money in return. It is also frequent for scammers to inform the victim he/she has won a prize, or that they possess powers that can get the evil away. In most situations, these individuals have accomplices that help with the research that will be used during the scam.
ADVICE FROM THE GNR TO AVOID BEING VICTIM OF A CRIME:

1. When at home, keep your doors and windows closed. If possible, place an inspection window and safety chain in your door. Don’t let suspicious people or strangers get in.

2. All the employees of official collecting services of water, insurance, etc., have proper ID cards. Check the photo. Don’t trust well-spoken strangers with good intentions.
3. Don’t show that you are home alone, even if there is no one in the house. Don’t hesitate in calling a close family member, because that will make every scammer go away.

4. Don’t show signs of having possessions, money, gold or other valuables at home.

5. Don’t share any information about you, your neighbours or acquaintances with strangers – it may be used in other crimes.

6. Try to grow relations in your neighbourhood. Mutual support between neighbours can help in suspicious or urgent situations.

7. Never provide personal data or sign any document without reading it and fully understand it.

8. Bills won’t go out of circulation. The circulation of new bills doesn’t devaluate old bills and there is no need to exchange them.

9. When outside, carry with you only the necessary cash. Avoid using valuables and keeping your wallet in your hand or pocket in a visible way.

10. Always keep phone numbers by hand in case you need to communicate with someone – especially GNR’s.

11. Keep yourself informed about new types of scams. When in doubt, don’t let anyone in and report the situation, immediately, to GNR.
HOW TO ACT WHEN CONFRONTED WITH THIS KIND OF SITUATIONS:

1. If you are threatened or grabbed, try to cause a stir by yelling.

2. Always keep your calm, don’t rush yourself, don’t show signs of being nervous and try to write down the license plate, model and brand of the vehicle.

3. Memorize the number of individuals and their appearance (height, sex, race, hair, eye colour, moustache, beard, glasses, clothing, etc.).

4. Pay special attention to specific details (tattoos, moles, piercings, disabilities, etc.), to accents and/or nationality.

5. Press charges immediately.

GNR is always available to help you but remember that Safety is a common responsibility and starts with you. Don’t give crime a chance, prevent it!
Week 3
From babies to grown-ups, milk has plenty of add-ups
From an early age, we hear about how milk helps us grow. How about its other benefits?

In fact, with increasing age, there is a diminishment of the bone density and, at the same time, a reduction in calcium absorption, which causes an increasing need for calcium.

Dairy products are also important sources of protein. Milk and its products, such as cheese and yoghurt, are the main source of calcium.

Not only are they rich in calcium but also provide the type of calcium that is better absorbed of all our diet.

EAT WELL!

Maria J. Gregório
Do not forget to drink about three glasses of milk, or an equivalent, such as cheese of yoghurt, every day.

However, remember that you should always choose the milk, cheese, and yoghurt with the least amount of fat (reduced-, low- or non-fat).

PREVENTS AND DELAYS THE PROGRESSION OF:

- OSTEOPOROSIS
- CANCER
- CARDIOVASCULAR DISEASES
- DIABETES
- IMMUNE SYSTEM VULNERABILITY
Every once in a while, we also deserve a sweet dessert! Learn how to do a delicious recipe of crème brûlée with reinette apple.
1. Peel the apples and cut them into matchsticks. Boil them in a small amount of water.

2. From the 1/2 liter of milk, put aside a small part into a bowl and then add the sugar and oat flour to it.

3. After the apples are cooked, add the remaining milk and the mixture of sugar and oat flour. Let it cook for two more minutes, and never stop stirring.

4. Plate it into small serving bowls, with a sprinkle of cinnamon.

<table>
<thead>
<tr>
<th>Nutrition Information per portion (200g)</th>
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<td>Fat</td>
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<tr>
<td>Saturated</td>
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</tbody>
</table>

INGREDIENTS
2 BIG REINETTE APPLES • 1/2 LITER OF REDUCED-FAT MILK • 2 TABLESPOONS OF SUGAR • 2 TABLESPOONS OF OAT FLOUR
Move your body
30 MINUTE WORKOUT PLAN OF PHYSICAL EXERCISE
(REPEAT 3 TIMES THIS WEEK)

This week, we want to improve your joint mobility, muscle strength and march speed.

WARM-UP EXERCISES
The workout always starts with some warm-up exercises. The warm-up exercises are essential to guarantee a good performance of any workout. See page 85 to guide your warm-up.

TRAINING PLAN

EXERCISE 1

1. Stand in front of a chair, with your back to it and with stretched arms;
2. Slowly lower the pelvis toward the chair seat, as far as you can, without sitting down;
3. Raise the pelvis again, stretching your legs until you return to the initial position, standing again. Make this movement 15 times;
4. Rest for 1 minute;
5. Repeat the entire exercise (that is, do one more series of 15 repetitions).
EXERCISE 2

1. Standing, walk without leaving the same place, raising your feet about 10 cm from the ground for 30 seconds;
2. Rest for 30 seconds;
3. Repeat the whole exercise (that is, do one more series of 30 seconds).

EXERCISE 3

1. Standing, raise your right leg 15 times, flexing your knee;
2. Then repeat the movement with the left leg;
3. Rest for 1 minute;
4. Repeat the entire exercise (that is, do one more series of 15 repetitions for each leg).

EXERCISE 4

1. Standing, raise your right and left legs alternately, 15 times each, flexing the knees;
2. Rest for 1 minute;
3. Repeat the entire exercise (that is, do one more series of 15 repetitions).
**EXERCISE 5**

1. Standing, raise both heels 15 times as far as you can;
2. Rest for 30 seconds;
3. Repeat the whole exercise (that is, do one more series of 15 repetitions).

**EXERCISE 6**

1. Standing with your arms in front of your thighs, raise the two hands above the level of the head and lower them again to the initial position without ever bending the arms;
2. Make this move 15 times;
3. Rest for 1 minute;
4. Repeat the entire exercise (that is, do one more series of 15 repetitions).

---

**ATTENTION!**

If any of the exercises causes pain or discomfort it should not be performed.

**STRETCHING EXERCISES**

For the training to be complete, it is necessary to stretch the muscle groups that have been worked. See page 88 to guide your stretching exercises.
“These exercises have greatly improved my mobility.”

Manuel Luta

“LONG AND HEALTHY LIFE” PROGRAM PARTICIPANT
Exercise your brain

ARITHMETIC AND CALCULUS EXERCISES

YOU WILL NEED A PENCIL/PEN

Arrange the numbers...

... from smaller to larger (ascending order):

3 4 5 2 0 1

4 2 7 9 6

45 11 23 55 24 89 65

OR
... from larger to smaller (descending order):

3  9  7  5  8  2  6  4

14  65  34  98  67  56  87  45  23  78

GOOD LUCK!
Rute de Sousa

SOLUTIONS

... from smaller to larger (ascending order)

98  87  65  56  45  34  23  14  11  1

... from larger to smaller (descending order)

89  78  67  56  45  34  23  14  11  1
With old age come several changes: in body systems (cerebral, life rhythm, endocrinal), psychological, occupational and existential, that directly interfere in the sleep-wake cycle. Therefore, sleep cycle suffers changes throughout the 24 hours.

On the other hand, the significative growth in sleep perturbations and medical, neurological and psychiatric diseases, along with polymedication (the use of a lot of medicines), that comes with ageing, increases the already referenced consequences.

More than half of the senior population (57%) has complaints related to sleep: 45% has periodical sleep movements, 24% has sleep apnea (respiratory arrest), 29% suffers from insomnia and about 10-12% has restless leg syndrome.

Sleep perturbations, other than more prevalent in the senior population, pose a significant decrease in quality of life and have been associated with a higher mortality.

Next, we present you with some rules to improve your sleep quality:

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**Expert corner**

**HAVE A GOOD NIGHT’S SLEEP**

**GUEST EXPERT:**

Teresa Paiva
Sleep Medicine Center – CENC • ISAMB, University of Lisbon’s Faculty of Medicine
1st RULE: KEEP YOUR BRAIN ACTIVE

Although there is no defined pattern of the cognitive changes of the elderly, they are associated with some memory changes, slower response times and lower cognitive or thinking complexity.

The lower use of cognitive processes (reasoning, memory, calculus, etc.) associated with retirement aggravates these symptoms and the isolation and abandon of social interaction and daily tasks work in the same direction. It is important to add that the fear of dementia is often present, even if not explicitly mentioned.

Occupation and cultural differentiation have a protective effect over the cognitive deterioration of the elderly. Thus, a retired individual should keep a cognitive activity, playing games such as the ones in “Exercise your brain” or board games. We also suggest that you create theme gatherings with your friends, sign up for a senior university or join a coral group.

2nd RULE: REGULAR BEDTIME

With age, the circadian cycle rhythm (wake up/sleep) amplitude and the melatonin production, a substance that influences sleep, decrease; sleep rhythm becomes polyphasic (you sleep more than once a day) and there is an advance in sleep phase, which means that you grow a tendency to go to sleep and wake up earlier.
The tendency towards advancing the sleep phase can strike highly pathological aspects, for a couple of reasons:

1. Some seniors, by falling asleep between 20h and 22h will wake six or seven hours later, meaning between 2 and 5 in the morning, having the feeling they don’t sleep. Advice: go to bed later or use ultra-shining light in the night and don’t take any pills.

2. For some seniors there is, on the contrary, a significant delay in bedtime, that goes in to the late hours of night or early morning hours, for several reasons: the fear of dying in their sleep or being alone at night, having games, social media or tv as nocturnal entertainment or having old nocturnal habits, that accentuate when there are no morning appointments.

   Advice: avoid stimulating activities or drinks at night, create the routine of going to bed early and darken your room when going to bed.

Sleeping outside of normal hours brings some health risks and should be treated by a specialist.
3rd RULE: STIMULATE THE CIRCADIAN SYSTEM ACTIVATORS

Retirement and isolation change in a significant way the “zeitgebers” (the circadian time regulators) because you lack schedules and obligations.

Many seniors have low sun exposure – in nursing homes and a lot of seniors’ houses there isn’t enough light – so the circadian system that recognizes night and day, sleeping and waking up, is not stimulated. The solution, in this case, is protected sunlight exposure (going outside or hanging by a sunny window) and the change of some daily habits (go out, talk, interact).

4th RULE: ACCEPT THE CHANGES OF AGEING AND UNDERSTAND THAT MANY ALTERATIONS ARE NORMAL

Sleep fragmentation is the most frequent change. There is an increase on the number of waking ups to about 15 per hour, even when there are no respiratory changes during sleep.

There is also a diminution of the slow profound sleep and an increase of the time of superficial sleep to about 5.5 to 7.5 hours.

On the other hand, there are wrong beliefs: the elderly believe that little sleep is bad, that staying awake in bed is boring, that they wish they sleep like when they were young, and that sleep must be continuous, without waking ups. In this case, sleep hygiene depends on accepting as “normal” a situation that was “pathological” before.
5th RULE: DON’T SLEEP DURING THE DAY IF YOU SLEEP LITTLE AT NIGHT, NOR TRY TO STAY A LOT OF TIME IN BED TO COMPENSATE

Sleep is like a glass of water: you can drink it in one go or in little sips, without managing to increase the total amount. Thus, those who sleep little shouldn’t nap or fall asleep in the couch. Snooze throughout the day shouldn’t also be done, because it reduces the need for sleep during the night – falling asleep later and sleeping poorly.

Along with this, excessive time in bed has some major risks, both for health and survival.

6th RULE: IF THE BODY GETS OLD, SO WILL SLEEP

With age, the body gets less agile and more fragile, the heart and lungs have less capacity, the kidneys and liver don’t work as well and there is an increased sensitivity to medicines.

If sleep guarantees survival and homeostasis of several physical, metabolic, cognitive and emotional functions, the decrease in all of them will have as consequence a lower need to sleep.

This means a senior can sleep well, but he/she will never have the same sleep of when they were young.
7th RULE: TO SLEEP WELL YOU MUST EAT WELL AND BE CAREFUL ABOUT WHAT YOU DRINK AT THE END OF THE DAY

The senior that lives alone tends to eat poorly, in quantity, quality and in the daily organization of meals. Sleep will resent of the abundant dinners and suppers, of the long fasting and of the poverty of the diet. What you drink is also important: drinking a lot at the end of the day, having stimulant or alcoholic drinks. Caffeinated drinks will make falling asleep harder, for most people, and alcohol will affect your nightly breathing, aggravating snoring and sleep apnea and deteriorating sleep quality.

Nocturia (urinating frequently during the night) deserves a special mention, because it is also a symptom of a lot of diseases frequent in seniors (Benign prostatic hyperplasia, Cardiac Insufficiency, etc.). Nocturia can be caused by ingesting too many liquids during or after dinner. It can be the milk or tea you drink to sleep better or even the water to take your meds. Besides the fact that it increases the risk of falling, seniors have difficulties falling asleep after waking up in the middle of the night, that can, for this reason, aggravate the sensation of insomnia or trigger an insomnia inexistent until that moment.

Sleeping problems have been associated, independently, to the risk of falls, which in this population are a concern, having in mind that they increase mortality and morbidity, with personal and economic implications.
8th RULE: EXERCISE

Physical ability decreases naturally, but a large national epidemiological study, done with independent seniors and with measurements of the actual motor activity, for 4 days, proved that the individuals with higher levels of physical activity had better sleep quality, and that low levels of physical activity were predictors of poor sleep quality. So, stay physically active, by walking every day and/or doing the exercises we suggest in the “Move your body” chapters.

9th RULE: AVOID POLYMEDICATION

Polymedication (taking lots of medicine) can cause problems and be difficult to approach. Other than the risks for the patient, that will have a lower physiological depuration (purification of the medicines) with greater risk of intoxication and higher risk of pharmacological interactions, most medicines have sleep interactions and its suspension can aggravate pre-existent illnesses. This aspect must be approach with extreme precaution and clinical sense, avoiding the risk of going from one end to the spectrum to the other. Consult your doctor regarding this matter.

Sleep problems can result or be aggravated by the use of hypnotics (sleep inducing meds), which, if prolonged, increases the risk of cancer and early death. It is recommended the discussion of these aspects with your physician.
10th RULE: TRY TO BE HAPPY

Seniors face multiple circumstances that can be unfavourable: the death of the spouse/friends/coworkers of the same age; isolation from the family and general society; lower physical and intellectual activity and being dependent of others; feelings of depreciation with loss of self-esteem; difficulty in understanding social changes, etc. So, search for activities that will promote your well-being and make you feel happier!

LIVE HEALTHY AND BE HAPPY!
Week 4
For a dinner of good stuff, a drop of olive oil is more than enough
Did you know that olive oil has always been the most common fat in cooking in the Mediterranean countries?

It is true; olive oil is the preferred fat in the Mediterranean diet, a food pattern recognized for its benefits for our health. Olive oil has a high content of monounsaturated fatty acids, which are more resistant to oxidation. Because of that, olive oil can perform better under the high temperatures reached when we are cooking.

This composition of monounsaturated fat is, in fact, one of the main responsible for the benefits of olive oil for human health, namely in the reduction of total and LDL cholesterol, the “bad cholesterol”, and the increase of HDL, the “good cholesterol”.

Therefore, to cook and to season food, always choose olive oil over other types of added fat, such as margarine, butter, and lard.

Nutrition Tips
OLIVE OIL

REDUCES
ARTERIAL PRESSURE

PREVENTS
CANCERS

STRENGTHENS
IMMUNE SYSTEM
The protective effect of olive oil is also related with the anti-inflammatory properties of the phenolic compounds providing it with the ability to reduce arterial pressure, prevent some types of cancer and strengthen the immune system.

However, albeit all its benefits, we cannot forget that olive oil is a fat and it is important to moderate its consumption.

A drizzle of olive oil will certainly be enough to season your salads and improve the flavor of your cooking.
Whenever you receive guests, serve them a codfish and broccoli millefeuille!
See how it’s done!

35 min  4 people
1.50€/person  Easy

Nutrition Information per portion (300g)

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<tr>
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</table>
1. Cook the codfish; remove skin and bones and reserve.

2. Cook the peeled potatoes, quartered. When boiled, remove them from the water and puree them. Add the milk (warm), the olive oil, the pepper and the nutmeg, stirring with a wooden spoon until the mashed potatoes are fluffy.

3. Chop the onions into half-moons and finely chop half the amount of garlic; make a stew, adding olive oil and a little water. Cook the codfish here.

4. Cook the broccoli and sauté them with the remaining olive oil and garlic.

5. In a deep Pyrex, layer the different mixes: first the codfish, then the broccoli, then the mashed potatoes. Put it in the oven at 170°C until brown (not dried).

INGREDIENTS
1kg OF PEELED POTATOES • 1/2 LITER OF MILK • 650g OF CODFISH • 3 GARLIC CLOVES • 150g OF ONIONS • 8 TEASPOONS OF OLIVE OIL • 400g OF BROCCOLI • SALT AND PEPPER AS NEEDED • NUTMEG TO TASTE

ENJOY YOUR MEAL!

[Signature]
Move your body

30 MINUTE WORKOUT PLAN OF PHYSICAL EXERCISE
(REPEAT 3 TIMES THIS WEEK)

This week we have a challenge for you! **We will improve your coordination doing these exercises.** Have a great workout!

**WARM-UP EXERCISES**

The workout always starts with some warm-up exercises. The warm-up exercises are essential to guarantee a good performance of any workout. **See page 85 to guide your warm-up.**

**TRAINING PLAN**

**EXERCISE 1**

1. Standing, put your hands on your waist;
2. Raise your right leg sideways as far as you can and lower it gently, 15 times;
3. Repeat the exercise with your left leg;
4. Rest for 30 seconds;
5. Repeat the entire exercise (that is, do one more series of 15 repetitions for each leg).
EXERCISE 2

1. Sit comfortably in a chair or sofa;
2. Get up from the seat;
3. Then raise the right leg laterally as far as you can and lower it gently;
4. Sit down again;
5. Repeat this movement 15 times;
6. Make the same movement with the leg left, also 15 times;
7. Rest for 30 seconds;
8. Repeat the entire exercise (that is, do one more series of 15 repetitions).

EXERCISE 3

1. Standing, put your arms stretched laterally at shoulder height;
2. Without lowering or folding your arms, join your hands in front of you;
3. Return to starting position;
4. Make this movement 15 times;
5. Rest for 30 seconds;
6. Repeat the entire exercise (that is, do one more series of 15 repetitions).
EXERCISE 4

1. Standing, place your arms extended laterally at shoulder height;
2. Without folding your arms, put your hands together above your head;
3. Return to starting position;
4. Make this move 15 times;
5. Rest for 30 seconds;
6. Repeat the entire exercise (that is, do one more series of 15 repetitions).

ATTENTION!

For your safety, make sure the chair or sofa is on a flat surface. The height of the chair or sofa should allow you to sit with both feet on the floor and knees bent at 90 degrees. The chair may have support for the arms.

EXERCISE 5

1. Sit down on a chair or sofa, slightly forward with your hands on the seat, the body leaning backwards, and the legs stretched;
2. Bend one of the legs, bringing the heel close to the opposite knee;
3. Alternate the leg with which you are doing the exercise, until you do the movement 15 times with each leg;
4. Rest 30 seconds;
5. Repeat the entire exercise (that is, do one more series of 15 repetitions for each leg).
EXERCISE 6

1. Sit on a chair or sofa, slightly forward with your hands on the seat, the body leaning backwards, and the legs stretched;
2. Lift your legs and do the movement of pedaling a bicycle for 30 seconds;
3. Rest for 30 seconds;
4. Repeat the whole exercise (that is, do one more series of 15 repetitions).

NOTE: If you can’t do this exercise repeat the previous one.

STRETCHING EXERCISES

For the training to be complete, it is necessary to stretch the muscle groups that have been worked. See page 88 to guide your stretching exercises.
Let’s continue exercising your brain! **Ready?**
Don’t worry if you experience difficulties completing some exercises!

**YOU WILL NEED A PENCIL/PEN**

Get to know the following families...

**FAMILY 1**

Laura’s father is called Gerome.  
Peter is her grandfather and Caroline her sister.  
Caroline is 10 years old and Laura is 8.  
Oh! And her mother’s name is Mary and she is 28 years old.

**FAMILY 2**

Jimmy is 65 years old and is married to Sarah, who is 60 years old.  
His oldest son is Arnold and he’s 28 followed by Maggie who is 24,  
his youngest daughter is 18 and is called Eva.  
From his three kids, only Maggie is married.  
She married John five years ago on her birthday.
Do you think you know this families already?

QUESTIONS ABOUT FAMILY 1:

1. How old is Laura?
   A: ____________________________

2. What is her father’s name?
   A: ____________________________

3. What is her grandfather’s name?
   A: ____________________________

4. What is her sister’s name and age?
   A: ____________________________

5. What is her mother’s name? How old is she?
   A: ____________________________
QUESTIONS ABOUT FAMILY 2:

1. What is Maggie’s father name? How old is he?
   A: 

2. Who is Maggie’s father married to?
   A: 

3. With who did Maggie married? How old is she?
   A: 

4. How many siblings does Maggie have? How old are they and what are their names?
   A: 

GOOD LUCK!
Rute de Sousa
KEY:

Answers about Family 1.

1. Laura is 8 years old.
2. Laura’s father is Gerome.
3. Laura’s grandfather is Peter.
4. Laura’s sister is named Caroline and she’s 10 years old.
5. Laura’s mother is Mary and she’s 28 years old.

Answers about Family 2.

1. Maggie’s father is Jimmy and he’s 65 years old.
2. Maggie’s father is married to Sarah.
3. Maggie’s father is married to Sarah.
4. Maggie has two siblings. They are called Arnold and Eva and they are 28 and 18 years old.
First let’s get our words straight. So:

**SEXUALITY, WHAT IS IT?**

If we used the term as a synonym for sex, what would be its purpose? I suggest we use the World Health Organization’s (WHO) definition:

“Sexuality is an energy that motivates us to find love, contact, affection and intimacy; it is part of how we feel, move, touch and are touched, it is being sensual and, at the same time, being sexual. Sexuality influences thoughts, feelings, actions and interactions and, thus, it also influences our physical and mental health.”
It is clear that the WHO is talking about much more than a physical action – it is a constellation of feelings, affections and contacts that target the communication between people and are part of our path, from birth to death. And I would like to pay special attention to that last sentence – “... it also influences our physical and mental health”. Meaning that, by taking care of it, we take care of ourselves at all levels.

**Seniors – Who are we?** (Yes, because I’m already sixty-seven...).

The simplest – and fake – way is to surrender ourselves to number: after sixty-five we are seniors; the night before we aren’t. But how many of us wake up that day and feel like they’ve crossed a border with no return? How many people discover in themselves, in front of the mirror and by reflection, physical and psychological features profoundly different because the ID card says so? Let’s be honest – not one. Why? Because we aren’t old – the word never intimidated me –, we keep getting older. It is important that we don’t lose sight of that – age is a continuous process that begins well before sixty-five. And I didn’t write “continuous” by accident, such adjective means that the changes we see, both in the physical and mental levels of sexuality, happen little by little, in a natural way – just like the ones that affect the joints or the memory.

Now that we know about what and who we are talking, will I be able to give you some advice about ways for us to “nurture” our sexuality? I’ll try. It begins by monitoring your overall health. That means paying regular visits to your family doctor or attending, and following their indications about our lifestyles, so that we can control several aspects such as blood pressure, blood sugar or cholesterol.
Without forgetting about our mental health – we’ve known for a long time that depression and anxiety, for example, also have influence in sexuality.

Another reason for us to approach health professionals. I understand that for us, older people, it can be hard to talk about our intimate life, after all we grew up in environments where no one talked about “that”.

Times have changes and we should think that having good health is not only to have normal lab results, seeing and hearing clearly and walking without problems, but feeling well.

Thus, to bring a sexual complaint to our doctor is as natural and necessary as talking to them about the joint that insists on creaking or your persistent headaches.

Do these kinds of complaint increase over time? Not necessarily, but some factors play against us. As we get older, the probability of developing chronical diseases is bigger.
Some of them, by themselves, can hurt the physical aspect of sexuality, such as:

- Diabetes
- Rheumatisms
- Cardiovascular diseases
- Cancer

Let’s not forget that many of the medicines we take have unwanted side effects. Some are:

- Hypertension medications
- Anti-depressants
- Chemotherapy

Meaning: diseases and medications threaten a gratifying sexuality, which makes even more important an open dialogue with health professionals, so that it is possible to determine the effective doses with the minimum side effects possible. Other than those caused by medication, other problems can appear. I’ll give you too examples related to cancer:

**Breast** – Although the treatments can have a major effect on sexuality, the most frequent complaints are related to self-image problems. Some women are afraid they’ll become less desired by their partners, even after reconstructive surgery. These are delicate situations, because doubts can be so deep-rooted that they infect an erotic relationship that, in fact, hasn’t changed.
Prostate gland – In this case, the men subject to some therapies suffer some side effects, such as incontinence and erectile dysfunction (impotence). That’s why medicine, today, as a more conservative approach, trying to avoid as much as possible surgeries that imply a high risk of these outcomes.

Psychologically, anxiety and depression present similar problems, mostly in difficult times as those we are living, with high unemployment rates and so many seniors forced to help, financially and affectively, their children and grandchildren. There are multiple sexual dysfunctions that can be developed, and obviously the affective quality of relationships is endangered. And, speaking of relationships, let’s remind ourselves that a situation of chronical illness can entail role changes in the daily life of a couple – one of us needing care and the other providing it – and that can have consequences in our erotic life: taking care and being cared and desire and being desired are words that generate some “ghosts” and fears in our mind (“what if he/she doesn’t desire me and is doing it just out of pity or simple affection?”). Here, open dialogue is the only solution to avoid misunderstandings and erotic and affective distance.

Generally speaking, and what concerns sexual response, changes that are most frequently mentioned are:

- Low desire
- Difficulty in having erection or lubrication
- Low orgasmic intensity
- Reduction of the frequency of the erotic act
I purposely left the reduction of frequency to the end. We can’t confuse quantity with quality, in erotic life as well as life in general. In reality, several studies mention senior people being more satisfied with their sexual relationship than in previous stages of their lives. There are many and logical reasons for that: diminution of taboos, greater intimacy with the other, less fear of giving themselves to the other, acceptance that “normal” for everyone doesn’t exist, but instead the pacification that allows satisfying sex.

As a couple or by yourself, we should remind ourselves that autoeroticism, mostly masturbation, is also a form of sexuality that we find throughout our lives, including in seniors.

We already underlined the subjective character of the word “normal”, and in a sex-saturated society by commercial reasons – it’s easily sold and makes several products more appealing, just turn on the TV... –, it is necessary to remind that there are people for whom sex, pure and simple, keeps losing importance, leaving the stage open for affection, gentleness, affective complicity.
If that happens without suffering or nostalgia, nothing allows us to say those are “abnormal” life paths. Enough to say that there is no direct relation between sexual problems and couples’ happiness; many claim to be happy and present obvious sexual dysfunctions; others don’t mention any difficulties with the sexual act but are unhappy with the overall relationship.

Because we mentioned dissatisfaction, and remembering the definition of the WHO, today we age in diverse ways, we are less willing to give up what we consider essential to feeling alive and not only surviving. Look around: there are divorces, people getting married for the first time, remarrying, living together, living alone but not lonely, having relationships with people the same age or much younger.

Families with children from one or both members of the couple. Failed or accomplished, what do those new paths of life say? The clear statement of the right to (try to) be happy, despite the numbers on the ID. What shouldn’t surprise us, after all, life expectancy is growing, and the challenge is to make sure the years we gain are quality ones.

And, despite all, we live in a world where, at all levels, old (and I use this word on purpose) people are treated with hubris and discriminated, from the personal to the affective spheres. It is good to remind ourselves that stereotypes about seniors are just that – stereotypes.
Technology, for instance: instead of accepting being considered some kind of new analphabets because we don’t dominate all the possibilities of computers and mobiles, let’s demand an increased technological research that could allow us to fight one of the biggest scourges of autumn and winter in our lives – loneliness.

Our affective life doesn’t end with our beloved children and grandchildren, that sometimes even give themselves the right to direct it – by jealously, prejudice or even economic interest. It is our job to defend our autonomy with tact but resolution, under penalty of later asking ourselves the terrible question:

– “what if?”

Assuredly I tell you:

Life is a miracle too precious not to enjoy it until the end. A satisfying sexuality is a mandatory companion of our journey!
Self-evaluation

In the last 4 weeks I’ve reached the goals of this program.

I’ve worked out for 30 minutes 3 times per week

I’ve increased my water, milk and vegetables intake

I understand my sexuality, my sleep, the importance of socialization and how to keep myself safe better

Place here the sticker that certifies that you have reached this goal.

Place here the sticker that certifies that you have reached this goal.

Place here the sticker that certifies that you have reached this goal.

Note: you can find the stickers on page 385.
CONGRATULATIONS!

WE ARE PROUD THAT YOU’VE MADE IT THIS FAR. WE HOPE TO CONTINUE HELPING YOU IMPROVE YOUR LIFE AND YOUR HEALTH.

STAY WITH US IN THIS ADVENTURE!

The Editorial team
Week 5
They say to eat fruit from the season... and they have all the reason!
Did you know that the daily consumption of fruit helps to prevent diabetes, high cholesterol, cardiovascular diseases (heart attacks, thrombosis) and some kinds of cancer?

Eating 3 pieces of fruit per day is necessary to meet the recommendations. Include, for example, a piece in your breakfast and at the end of your lunch and dinner.

In fact, **fresh fruit is an excellent option for your main meals’ dessert but try to include it also during breakfast and as a mid-morning or mid-afternoon snack.** Once again, remember that the main thing is to vary.

Vary and choose different types of fruit during the day, throughout the week and according to the season. Vitamin C has an important role in strengthening your immune system and important anti-inflammatory properties.

Prefer whole fresh fruits, since reducing a fruit to only its juice also means reducing its richness in fiber and vitamins. Still, if you opt for a juice, always choose a natural fruit one, made to order, instead of the 100% juices and fruit nectars.
VITAMIN C-RICH FRUITS:

- ORANGE
- KIWI
- TANGERINE
- STRAWBERRIES
Cooking healthy
FRESH FRUIT AND YOGHURT BOWL

See how much fun you can have with fruit!
Learn how to prepare a delicious bowl with fresh fruit and yoghurt.

INGREDIENTS
4 NON-FAT PLAIN YOGHURT • 1 SLICE OF PINEAPPLE • 2 ORANGES
• 150g OF STRAWBERRIES • 2 TABLESPOONS OF HONEY • 2 TABLESPOONS OF SLICED ALMONDS • MINT LEAVES TO TASTE

NOTE: You can use other fruits, to taste.

1. Start by chopping the fruit into small pieces.
2. In a bowl, place the chopped fruit and add the yoghurt, honey and mint leaves on top of it.
3. Sprinkle with the almonds

⚠️ ATTENTION!
Honey is, for the most part, sugar, so it should be used in moderation.
### Nutrition Information per portion (218g)

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**ENJOY YOUR MEAL!**

Izutia Noble
This week we propose you a challenge. Let’s improve your coordination and marching speed by doing these exercises. Have a great workout!

**WARM-UP EXERCISES**

The workout always starts with some warm-up exercises. The warm-up exercises are essential to guarantee a good performance of any workout. See page 85 to guide your warm-up.

**TRAINING PLAN**

**EXERCISE 1**

1. Sit on a chair or sofa;
2. Get up;
3. Raise the right leg by flexing the knee, and lower it gently;
4. Sit down again;
5. Do this movement 15 times;
6. Then repeat the exercise with your left leg;
7. Rest for 30 seconds;
8. Repeat the entire exercise (that is, do one more series of 15 repetitions).
EXERCISE 2

1. Sit on a chair or sofa;
2. Get up;
3. Then raise your legs alternately and gently lower them, 15 times to each leg;
4. Rest for 1 minute;
5. Repeat the entire exercise (that is, do one more series of 15 repetitions).

ATTENTION!

For your safety, make sure the chair or sofa is on a flat surface. The height of the chair or sofa should allow you to sit with both feet on the floor and knees bent at 90 degrees. The chair may have support for the arms.

EXERCISE 3

1. Standing, walk without leaving the same place for 30 seconds, raising your feet about 10 centimetres off the floor;
2. Rest for 30 seconds;
3. Repeat the entire exercise (that is, do one more series of 30 seconds marching).
EXERCISE 4

1. Standing, take 5 walking steps without leaving the same place, raising the feet about 10 centimetres off the floor;
2. Next, put your arms straight next to the body, continuing marching;
3. Raise the stretched arms sideways, putting your hands above your head; do this exercise 5 times while continuing marching;
4. Repeat this movement 15 times;
5. Rest for 1 minute;
6. Repeat the entire exercise (that is, do one more series of 15 repetitions).

EXERCISE 5

1. Standing, take 5 walking steps without leaving the same place, raising the feet about 10 centimetres off the ground;
2. Next, put your arms straight next to the body, continuing marching;
3. Raise your arms straight up to should height 5 times and keep your pace;
4. Repeat this movement 15 times;
5. Rest for 1 minute;
6. Repeat the entire exercise (that is, do one more series of 15 repetitions).
Very well! For the training to be complete, the stretches are missing! Do not forget to repeat these exercises 3 times per week!

**STRETCHING EXERCISES**

For the training to be complete, it is necessary to stretch the muscle groups that have been worked. *See page 88 to guide your stretching exercises.*
Read the following lies!

- Oranges are green.
- Trains are slower than horses.
- Americans follow the Mediterranean diet.
- Printers function with hydraulic energy.
- Gold rings smell like bananas.
- Chocolate cakes make you fatter than fruits.
- Elephants have seven fingers in each paw.
- Water with sugar has a salty taste.
Complete each sentence with the information you read before.

- Oranges
- Trains
- Americans
- Printers
- Gold rings
- Chocolate cakes
- Elephants
- Water with sugar

GOOD LUCK!

Rute de Sousa
KEY:

- Oranges are green.
- Trains are slower than horses.
- Americans follow the Mediterranean diet.
- Printers function with hydraulic energy.
- Gold rings smell like bananas.
- Chocolate cakes make you fatter than fruits.
- Elephants have seven fingers in each paw.
- Water with sugar has a salty taste.
The first step any senior should take regarding their oral health is to forget the myth that, throughout the years, we lose our teeth and the future means a dental prosthesis.

Teeth, like the other human organs, can present some signs of use, but if well taken care of, you can keep them throughout your life. A good diet is essential for teeth maintenance.

Fiber and non-sugary foods favour the oral health the most. In your mouth, sugar degrades into acid. It attacks the enamel, which is the external organ that protects the teeth. Exposing the inside of the tooth allows its colonization by bacteria that cause dental decay. Sugar present in the food that adheres to the dental surface, such as toffees, is especially dangerous, since they keep the sugar in contact with the teeth for longer periods of time. Foods with a high fiber content, other than contributing for a good oral health, also help with dental hygiene, since most of them require prolonged chewing.
The best way to keep your teeth clean is to brush them. You should do it at least three times a day, after your main meals.

To brush your teeth properly you need time (three minutes at least, for every brushing), technique (that can be learned and practiced with the help of an oral hygienist) and an adequate brush (soft, with synthetic bristles, a proper handle and replaced often). With age, brushing movements can become limited by the lack of agility.

There are some brushes adapted to people with lower agility already available in the market – these have varied formats and adaptations. Before buying a brush, ask to test its handling with samples that are available. The electric toothbrush can be a good alternative. It usually has a larger and more ergonomic handle and makes the brushing movements easier.

We can’t forget that electric brushes demand the same care as the manual ones (the active heads should be changed frequently and kept clean between brushings).

Teeth have a singular anatomic shape, keeping between them a good contact point that prevents the food build-up in interdental spaces. With natural wear, these contact points shun, and food accumulates between the teeth.
Accumulated food between the teeth causes bad breath and decay, often difficult to diagnose and treat. Cleaning the space between the teeth can be done with the help of dental floss and/or pipe cleaners. Using dental floss can be difficult, even more when there is a diminution of manual dexterity. In the pharmacies, you can find dental floss applicators that make this task easier.

Pipe cleaners are small brushes, with a similar shape to old bottle brushes, and are very easy to use, being effective in cleaning the teeth. Because there are different sizes, your dentist can help you choose.

Bad breath can be caused by gastric changes or upper airways infections, but it often develops because of the presence of bacterial plaque in the mouth, including the tongue. When brushing your teeth, don’t forget to gently brush your tongue, using the same toothbrush.
If you wear a removable denture, you should also brush the gum and palate before putting it on and after removing it.
With time, gums tend to recede, leaving some roots exposed. Dental root doesn’t have enamel (the protective organ of our teeth) and can get damaged easily, making the nerve, that you can find in the interior of the tooth, more superficial. This proximity of the nerve triggers dental sensitivity, with pain, when ingesting hot, cold, acidic or sweet foods.

Seek the advice of a dentist as soon as possible to discard the possibility of tooth decay (that is also more frequent in worn areas). If there is no decay, the initial treatment is the use of a desensitizing toothpaste or gel. In a very high percentage of cases, the situation gets better.

Even in patients with no cavities, you can see the loss of teeth due to gum diseases. Gums start to present inflammation, bleed during brushing and the teeth start to show some mobility. Even though there are some other causes (namely systemic diseases, “heredity”), the main cause is bad oral health.

A frequent error is to stop doing oral hygiene when gums present some bleeding. Even if that happens, you should not stop brushing your teeth. In general, by keeping a proper brushing, the bleeding decreases.

Before consulting your dentist or oral hygienist, don’t start using oral rinses. Some of them are alcoholic solutions that can cause complaints (for example mouth burn) when used for some time. Consult your oral hygienist or dentist so that he guides you in the treatment. Many of these situations are reversible with proper treatment.
The feeling of dry mouth is very unpleasant and very frequent as age increases. The lack of saliva worsens the mouth's self-cleaning and the risks of mouth infection increases.

Salivary glands are responsible for the production of saliva and, with age, their saliva production capacity decreases. Anxiety, depression, sleeping and even blood pressure, diabetes and other medication can cause dryness of the mouth.

Thus, if there is mouth dryness, you should contact your physician and try to find one of these causes. Sometimes it is possible to change your medication to other with lower effects on the saliva. If after controlling these causes, you still feel your mouth dry, you should increase the consumption of water, chew some free sugar gum, to stimulate saliva production, or use saliva substitutes you can find in the pharmacy. Also in this case, you shouldn’t use alcohol disinfectants, because they aggravate clinical complaints.

Many seniors have already lost their teeth and use artificial ones (either attached or removable). Removable prostheses are the most common and can be made of acrylic or metal/acrylic (skeletal). In both cases, they should be seen by the dentist when inadequate and/or replaced every 5 years.

Many people have questions about the hygiene of the prosthesis, but in fact, though it is a process that can demand some patience, it obeys a very simple group of rules: place the prosthesis under water so that all the bigger residues come off; after that, brush the denture with a soft brush and mild soap or a specific product; rinse under water; in the end, check to see if the prosthesis is completely clean.
Toothpastes shouldn’t be used to clean prosthesis, because they can damage the material. Before going to bed, place your denture in a proper disinfectant liquid or in fresh and clean water. Prosthesis should never dry completely. Sometimes, due to loss of bone or changes in oral tissues, prosthesis can become very mobile, compromising not only eating, but social life. There are some products (prosthesis adhesive) that help with adherence, making them more comfortable. Always chose certified products without flavour additives so they don’t interfere with the flavour of food.

Implants came to resolve the inconvenience of removable prosthesis. The implants themselves are small hollow screws that replace the root of the teeth. Usually they are made of titanium, so they don’t cause allergies or prevent you from doing any head or neck radiological exams.

Over the implants, dentists can place dental crowns or structures with several teeth.

It is very important to know that, to replace a full set of teeth, one doesn’t need as many implants as teeth.

On the other hand, people often associate implants to completely attached teeth that can only be removed by the dentist. In fact, we can use implants to fixate pre-existent removable prosthesis, greatly improving comfort when chewing and talking, with much lower costs than those of totally attached teeth.
In these cases, removable prostheses are inserted in the implants, with special techniques, doing the same job as attached ones, but can be removed by patients.

The biggest obstacles to placing implants are not age (they can be placed in any age), but the presence of bone that can support them and some systemic diseases that, because of its severity, don’t allow for implants to be placed (tumours, radiotherapy, chemotherapy, etc.).

Before getting implants, always consult your attending and stomatologist. They can inform you whether you are a good candidate for implants. Luckily, with modern techniques, the limitation for lack of bone is increasingly less frequent.

Many people are convinced that implants don’t require any maintenance and/or visits to the stomatologist.

**Implants are very sensitive to lack of hygiene, that should be done carefully and periodically with the help of an oral hygienist. Bad oral hygiene or a poorly constructed prosthesis leads to the early loss of implants.**
In any age, we should observe, daily, in front of the mirror and in good lighting, our mouth. White or dark spots, wounds, dental ulcers, swollen gums or tissues, as well as changes not previously there that last longer than 15 days should be observed by a stomatologist. Although most of these lesions are benign and don’t have a significant meaning, they can be sign of oral cancer. It is a serious disease that, with an early diagnosis, can be cured. A good diet with fibers, no sugars and no tobacco or alcohol also decreases the risk of this disease.

In short: healthy eating and a good oral hygiene cause our teeth to accompany us for all our life. When you lose teeth, you should replace them, improving eating, talking and social contact. Prostheses, whether attached or removable, should be carefully maintained and, finally, the self-observation of your mouth is essential to prevent serious diseases of the mouth.
Week 6
Plenty, just enough, maybe, salt is a tricky enemy
High salt intake is one of the main responsible for high blood pressure and, therefore, for cardiovascular diseases.

The Health World Organization recommends an intake of salt of less than 5g per day (1 teaspoon of salt per day).

All foods contain sodium in their composition; ideally, you would not need to add any salt during the preparation or cooking of your meals.

The use of various herbs (rosemary, spring onion, coriander, oregano, mint, bay, parsley, and others), spices (saffron, curry, pepper, nutmeg) and other condiments (lemon, vinegar, etc.) for meal preparation helps us reduce the amount of salt without losing on flavor.

**less than 5g a day**

= **1 teaspoon**
A big part of our sodium intake comes from processed food, such as pre-cooked meals, canned food, delicatessen products, food stocks, sauces (for example soy sauce), butter and margarines with salt, cheese, chips and other snacks, breakfast cereals and some biscuits, among others... when buying, a close reading of the nutrition labels is fundamental to choose the food with the less amount of salt in it.

EXCESSIVE INTAKE OF SALT CAUSES:

• CANCER
• IMPAIRED KIDNEY FUNCTION
• CARDIOVASCULAR DISEASES

LOW SALT CONTENT:
less than 0.3g of salt per 100g or 100ml of product
Do you know how to reduce the amount of salt in your meals without losing on flavor? Simply use a lot of spices, herbs, and other condiments.

Nutrition Information per portion (220g)

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<tr>
<td>Fat</td>
<td>5.86g</td>
</tr>
<tr>
<td>Saturated</td>
<td>0.95g</td>
</tr>
</tbody>
</table>
1. Cook the peas in salted water and cool them immediately to keep them green.

2. In another pan, make a stew with the chopped onion, the minced garlic, the crushed tomatoes, the bay leave, some water and the olive oil. Season with salt, pepper, and ginger, and add the white wine. Let it cook and reserve.

3. In the pan of the stew, add the grouper, the cooked peas, the thinly sliced pepper and some coriander. Let it cook for the fish to get that stew flavor. Serve with white rice.

**INGREDIENTS**

4 GROUPER STEAKS • 300g OF FROZEN PEAS • 300g OF TOMATOES • 1 ONION • 2 GARLIC CLOVES • 8 TEASPOONS OF OLIVE OIL • 1/2 RED PEPPER, SLICED • 1 BUNCH OF CORIANDER • SALT, PEPPER AND GINGER TO TASTE • 1 BAY LEAVE • 1/2dl OF WHITE WINE

**NOTE:** You can substitute the grouper for hake, ling or forkbeard.

Enjoy your meal!

[Signature]
Move your body

30 MINUTE WORKOUT PLAN OF PHYSICAL EXERCISE (REPEAT 3 TIMES THIS WEEK)

The exercises proposed this week will improve the strength of your arms and legs. Good training!

WARM-UP EXERCISES

The workout always starts with some warm-up exercises. The warm-up exercises are essential to guarantee a good performance of any workout. See page 85 to guide your warm-up.

TRAINING PLAN

EXERCISE 1

1. Standing, put your hands on a stable surface, such as a table, countertop or furniture, with your legs apart at the width of your hips;

2. Squat down slightly, as far as you can, flexing the knees and keeping your back straight;

3. Raise the pelvis back to the starting position, standing;

4. Repeat this movement 15 times;

5. Rest for 30 seconds;

6. Repeat the entire exercise (that is, do one more series of 15 repetitions).
EXERCISE 2

1. Standing, put your hands on a stable surface, such as a table, countertop or furniture, with your legs apart at the width of your hips;

2. Step forward with your right leg and bend your knees, getting your left knee close to the ground (kneeling position);

3. Extend your knees, returning to the starting position. Make this move 15 times;

4. Then repeat the exercise, now stepping with one your leg and approaching the right knee to the floor. Do this move 15 times;

5. Rest for 30 seconds;

6. Repeat the entire exercise (that is, do one more series of 15 repetitions for each leg).

EXERCISE 3

1. Standing, walk without leaving the same place, with your feet about 10 centimetres off the floor;

2. Raise your arms extended above your head;

3. When the arms are above your head, flex them back. Making the opposite movement, bring your arms gently to the initial position;

4. Make this move 15 times;

5. Rest for 30 seconds;

6. Repeat the entire exercise (that is, do one more series of 15 repetitions).
ATTENTION!

For your safety, make sure the chair or sofa is on a flat surface. The height of the chair or sofa should allow you to sit with both feet on the floor and knees bent at 90 degrees. The chair may have support for the arms.

EXERCISE 4

1. Sit comfortably on a chair or sofa with your feet flat on the floor;
2. Lean your body slightly forward and cross your arms in front of your chest;
3. Keeping the body leaning forward, raise your arms at shoulder height;
4. Make this move 15 times;
5. Rest for 30 seconds;
6. Repeat the entire exercise (that is, do one more series of 15 repetitions).
EXERCISE 5

1. Sit comfortably on a chair or sofa with your feet flat on the floor;
2. Raise your arms laterally at shoulder height;
3. In a continuous movement, turn your body to the right side and stretch the right leg;
4. Return to starting position;
5. Make the same move, now to the left side;
6. Do the two previous movements alternately, 15 times each side;
7. Rest for 30 seconds;
8. Repeat the entire exercise (that is, do one more series of 15 repetitions).

STRETCHING EXERCISES

For the training to be complete, it is necessary to stretch the muscle groups that have been worked. See page 88 to guide your stretching exercises.

GOOD TRAINING!
Rita Fernandes
Read the words alternately to form meaningful sentences.

EXAMPLE:
THE TOMORROW COMPUTER I HAVE IS
AN BROKEN EXAM

KEY:
- Tomorrow I have an exam;
- The computer is broken.
1. THE I CAR GET IS UP PARKED EARLY

2. PETER THE EATS GIRL POTATO HAS CHIPS A FOR RED DINNER SKIRT

3. TOMORROW I WE’LL WRITE GO WITH TO A THE BLUE ZOO PEN
4. I IT’S HEAR ALWAYS RADIO SNOWING EVERY ON DAY CHRISTMAS

5. I’M THE AFRAID GREEN TO APPLE JUMP HAS ON A THE WORM TRAMPOLIN

GOOD LUCK!
Rute de Sousa
KEY:

1. – The car is parked.

2. – Peter eats potato chips for dinner.

3. – tomorrow we’ll go to the zoo.

4. – I hear radio every day.

5. – I’m afraid to jump on the trampoline.

6. – It’s always snowing on Christmas.

7. – The green apple has a worm.

8. – I write with a blue pen.

9. – The girl has a red skirt.
Ageing is associated with complex functional changes that often lead to deterioration of vision, which can be translated in multiple ways.

In this chapter, we will address the most frequent changes or illnesses that occur with ageing: presbyopia (difficulty focusing at close range), dry eye, cataracts, glaucoma, age-related macular degeneration (progressive loss of vision), and diabetes.

**PRESBYOPIA**

Presbyopia or near-vision impairment is caused by a diminution of the crystalline accommodation (responsible for distant, near, and medium-range focusing of objects) and is translated by a progressive difficulty of seeing closely.
It usually begins in the middle of the fourth decade of life and requires the use of glasses with positive lenses to focus images, first at close and, progressively, in middle distance (computer). It is more pronounced and limiting in hypermetropes (people who wear positive lenses).

Nowadays, there are surgical treatments for the correction of presbyopia, the most frequently used being the implantation of multifocal intraocular lenses (premium) - we will go into this topic in more detail later.

DRY EYE

Dry eye is a multifactorial disease related to changes in the tear and/or in ocular surface components.

Its prevalence is about 30% of people over 50 years of age, being much more frequent in females.

There are other associated risk factors, such as post-menopausal estrogen therapy, unbalanced diets, vitamin A deficiency, androgen deficiency, general inflammatory diseases such as rheumatoid arthritis, abuse of topical ocular medication and certain general medications, among others.
It often determines symptoms of eye discomfort, more or less pronounced (pain, “itching”), disturbed vision, more frequent and intense when waking up, changes in the tear, which causes a decrease in quality of life. The treatment is chronic, often ineffective, implying high costs. Population education campaigns are needed to alert to risk factors.

CATARACTS

The cataract consists of opacification of the crystallin. It is a chronic, irreversible disease responsible for more than 50% of blindness worldwide, primarily in developing countries.

The most frequent cause of cataracts is related to the normal ageing process of the eyeball; so that more than 50% of people over 60 and about 75% of the population over 75 years of age suffer from cataracts. There are, however, other causes that can trigger the formation of a cataract: trauma, diseases such as diabetes mellitus, medications such as cortisone, exposure to radiation, etc.

Cataracts can be manifested by blurred vision, increased sensitivity to light, frequent changes in eyeglass prescription, which is often manifested by the development or increase of myopia in people after 50 years (good close-range vision), double vision from one eye, increased difficulty in night vision and in distinguishing some colours, need for more intense light for reading, among others. Its evolution is variable from person to person.
A common doubt in people's minds is:

**When should cataract surgery be performed?**

The notion that cataracts must be "mature" or that an individual must become blind to be operated on is a prehistoric concept. Nowadays, surgery should be performed when the cataract causes a loss of vision that interferes with the person's normal activity, limiting them in their daily life, and/or to correct refractive errors (myopia, astigmatism, hyperopia, as well as presbyopia). Cataract surgery has had a huge development in the last decades, being the most frequent surgery in people over 65 years.

Phacoemulsification is the procedure of choice in most situations today, usually resulting in excellent visual results with good safety. This technique is done under local anaesthesia and consists of replacing the damaged crystallin with an artificial lens.

Cataract surgery often makes possible, simultaneously, the correction of refractive errors (myopia, hyperopia, astigmatism or even presbyopia - "eye fatigue"), eliminating, in most activities, the use of glasses or contact lenses, using much more differentiated intraocular lenses, called premium lenses.

These lenses require a more careful preoperative evaluation, specific ophthalmologic examinations, precision and a much more accurate surgical technique. The use of laser for cataract is associated with greater safety for the patient, greater accuracy, predictability and better results fundamentally with the use of premium lenses.
The laser also makes it possible to perform, with increased safety, more complicated surgeries of cataract. This is surely the future of cataract surgery.

GLAUCOMA

The term glaucoma refers to a group of diseases that affect the optic nerve in a characteristic way, is often associated with an increased intraocular pressure, and is one of the most important causes of blindness. Peripheral visual acuity decreases without the patient becoming aware of their progressive visual incapacity; the central vision is not affected initially.

About 70 million people in the world suffer from glaucoma (2013 estimate). In Europe, the estimated number is about 7 million, and half the population with glaucoma suffers from the disease without knowing it. The prevalence (Europe) is about 2.93% in the population over 40 years. It increases with age, and the over 65 prevalence reaches 5% in the Caucasian race. The prevalence is higher among blacks. A first-degree relative with glaucoma also has an increased risk, about 4 times higher, compared to the general population.

There are several forms of glaucoma, the most frequent of which is primary open-angle glaucoma. It is a chronic disease that, in its initial phase, typically does not show symptoms (without pain, ocular inflammation or luminous halos); is slow, progressive and insidious, because changes in the visual field are only detected in advanced stages of disease.
Early detection of glaucoma in its asymptomatic phase is important because when treated properly, it prevents further loss of vision and ensures the maintenance of quality of life, and may prevent the evolution to blindness.

Being the second leading cause of blindness in the world and the leading cause of irreversible blindness, vision loss from glaucoma can be prevented through regular ophthalmology consultations, especially after age 40.

Screening every 2 to 4 years is recommended for people over the age of 40, based on the principle that the incidence of glaucoma increases with age. For people with additional risk factors, such as a family member with glaucoma, screening should occur earlier and with a shorter interval between evaluations.

The incidence of glaucoma is higher in the population of African origin, so it is recommended that screening be done between 20 and 39 years of age. You should do a screening every 3 to 5 years.
Early diagnosis by the ophthalmologist is an extremely important measure in terms of public health. This is the only way to identify and treat the causes of glaucoma and its progression. The treatment is essentially pharmacological and is for life. The aim of the treatment is to prevent damage to the optic nerve and consequently visual loss. When such a goal is not achieved, laser treatment and/or surgical treatment should be considered. Although it is the leading cause of irreversible blindness in the world, glaucoma is treatable.

AGE-RELATED MACULAR DEGENERATION (AMD)

Age-Related Macular Degeneration (AMD) is a degenerative disease of the central area of the retina (macula), which causes the loss of central vision. DMI accounts for about 8.7% of blindness worldwide, the most frequent form of blindness in developed countries, particularly in people over 60 years of age. Its prevalence tends to increase, as a result of the greater longevity of populations and the exponential increase of the elderly population; the projection of patients in 2020 will be 196 million, rising to 288 million in 2040.

It has two forms of presentation: an early, less severe form that, in most cases, shows no symptoms (early AMD) and a late or advanced, more severe form (late AMD). As a rule, it is bilateral in its early forms.
The progression to late forms, which cause severe loss of vision, can occur in 50% of cases. When late AMD reaches both eyes, it becomes extremely disabling for all activities of daily living (reading, writing, driving, distinguishing faces of family members, checking the time or phone numbers, etc.).

The older the person, the greater the likelihood of having the disease. Family history is another very important factor and is associated with a genetic predisposition. A third known risk factor, and one in which we can intervene, is tobacco. In early, less serious forms, the disease has no symptoms, and the evolution to the advanced forms of the disease is often sudden and symptomatic.

If you notice distortion of straight lines or a shadow that prevents you from seeing the lines or images, you should consult your ophthalmologist.

There is no way to prevent the onset of DMI. However, we can intervene in the most severe forms that cause blindness:

1. Quit smoking;
2. Have an appropriate diet that includes vegetables, fruits and fish;
3. Or take vitamins and antioxidants in therapeutic doses.
Examples of recommended foods include cabbage, broccoli, spinach, lettuce, kiwi, citrus fruits, fruit juices, tomatoes and fatty fish (mackerel, sardines, tuna). Early forms of the disease do not benefit from treatment. Significant advances have been made in the treatment of the exudative form of the disease, with the introduction of surgical treatments, through ocular injection of innovative (anti-angiogenic) drugs, with the possibility of preventing blindness and, in many cases, increasing visual acuity.

They make it possible to improve the vision to twice what it was at the beginning of the treatment, in about 1/3 of patients, or at least to conserve it, in about 70% of cases. However, these are extremely expensive, repeated treatments, which lead to very significant financial and logistical problems.

**DIABETES AND EYE DISEASE**

Diabetic retinopathy (DR) is the leading cause of active-age blindness in Western countries. Oddly enough, about half of the diabetics ever diagnosed have never been to the ophthalmologist. It is estimated that in Portugal there are 250,000 diabetics with diabetic retinopathy. Of these, about 55,000 need treatment. In more than 90% of cases, loss of vision could have been avoided if there had been good metabolic control and timely diagnosis and treatment.

It is generally accepted that metabolic control should include the reduction, as far as possible, of glycosylated haemoglobin to numbers ≤ 7%, or fasting glycaemia of 110mg/dl, the control of blood pressure, cholesterol and triglycerides, the reduction of obesity with adequate diet, scheduling daily physical activity, and monitoring and maintaining renal function.
All diabetics should be observed by an ophthalmologist or included in national screening programs. In type 1 diabetics, eye fundus examination is mandatory, as a rule, 5 years after diagnosis (the risk of diabetic retinopathy is reduced before puberty).

This observation should also be made in all type 2 diabetics but, in this case, soon after diagnosis. For diabetics who intend to become pregnant, they should be observed by an ophthalmologist prior to conception and, then, quarterly.

The severity of diabetic retinopathy determines the degree of complexity of the ophthalmologist’s intervention. If there is no diabetic retinopathy or there are only minimal lesions (microaneurysms), an annual ophthalmologic evaluation is recommended. In more advanced degrees of retinopathy, the ophthalmologist determines the periodicity of the observation, which will be conditioned by the necessity and frequency of the required treatments.

The treatment of diabetic retinopathy, in its different phases, has undergone alterations in the last years, being possible to have vision gains that were previously not within our reach. It may include performing laser photocoagulation, treatment with intravitreal injections of anti-VEGF, use of intra-vitreous corticosteroid implants, and surgery which, if necessary, is also an excellent therapeutic weapon. However, it means that everything that was done or should have done before, failed.

Although elderly people can develop mechanisms that compensate the reduction of their sensory functions (vision and hearing), there is often, and simultaneously, a decrease in their cognitive functions that compromise the effectiveness of these mechanisms. It is therefore necessary to have an early diagnosis of these situations, as well as an effective health and rehabilitation system, which reduces these limitations.
Loss of vision limits the mobility of people, the possibility of driving, the relations with others, the access to information; it also increases the risk of falls and accidents and is often the triggering factor for severe depression.

In two important documents published in 2015 by the World Health Organization and the European Union on ageing and the related socioeconomic implications, the urgency of a reform of health systems on this subject is highlighted, promoting integrated health care, centred on the person ageing, providing active and healthy ageing.
Week 7
Switch between meats, eggs and fishes and create beautiful dishes
Boiled, fried, scrambled and poached, there are a million ways to cook eggs. Eggs are an excellent alternative to meat and fish and are as good protein source as meat and fish products, with the advantage of being much cheaper. They have the better-quality proteins of our food since it respects the proportion and quantity of essential amino acids.
Why not try to cook some meals with eggs every week?

The egg intake for healthy people is considered adequate up to 1 egg every day, if it is part of a healthy dietary pattern. The secret is in changing things over, so we should, for our main meals, alternate between meat, fish, and eggs, not forgetting we should privilege the consumption of white meats and fish over red meats, red and processed meats. The M-class eggs (medium) have the adequate size (53 to 63g).

⚠ ATTENTION!

Do not forget you should only eat one egg per meal.

EAT WELL!
Maria J. Gregório
Cooking healthy

STEWED WHITE BEANS WITH POACHED EGG
Without meat or fish at home? Not a problem, make white beans stew with a poached egg. Enjoy your meal!

**INGREDIENTS**

- 500g of cooked white beans
- 100g of chorizo
- 1 onion
- 2 garlic cloves
- ½ bay leaf
- 8 teaspoons of olive oil
- 250g of tomatoes
- 1dl of water
- 4 eggs

1. Make a stew with the olive oil, the chopped onion, the minced garlic, the sliced chorizo, the bay leaf, the chopped tomato and the water.

2. Add the cooked beans with some of its broth, season with salt and let it cook for a moment.

3. When that is ready, add the cracked eggs, apart from one another. Cover the pan and let the eggs cook for 2 minutes.

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**Nutrition Information per portion (200g)**

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ENJOY YOUR MEAL!

Júlia Nobre
**Move your body**

30 MINUTE WORKOUT PLAN OF PHYSICAL EXERCISE
(REPEAT 3 TIMES THIS WEEK)

This week we want to improve your balance.
Let’s move on! March, march!

**WARM-UP EXERCISES**

The workout always starts with some warm-up exercises. The warm-up exercises are essential to guarantee a good performance of any workout. See page 85 to guide your warm-up.

**TRAINING PLAN**

**EXERCISE 1**

1. Sit on a chair or sofa, with your arms stretched to the side of your body;
2. Get up;
3. Raise your arms extended above your head and lower them gently;
4. Sit down again;
5. Repeat this movement 15 times;
6. Rest for 1 minute;
7. Repeat the entire exercise (that is, do one more series of 15 repetitions).
EXERCISE 2
1. Standing, take 6 walking steps without leaving the same place, raising the feet about 10 centimetres from the ground;
2. Flex your legs back alternately, 4 times for each leg, lowering them gently;
3. Rest for 1 minute;
4. Repeat the entire exercise one more time.

EXERCISE 3
1. Standing up, raise at the same time, alternately, the right arm and the left leg, extended, as far as you can;
2. Lower your leg and arm gently;
3. Do this move 15 times;
4. Repeat the movement, now with the left arm and the right leg;
5. Rest for 30 seconds;
6. Repeat the entire exercise (that is, do one more series of 15 repetitions).
EXERCISE 4

1. Standing, raise at the same time, alternately, the right arm and the left leg extended, as far as you can;
2. Repeat the movement, now with the left arm and right leg;
3. Do the two previous moves alternately, 15 times each;
4. 🕒 Rest for 30 seconds;
5. Repeat the entire exercise (that is, do one more series of 15 repetitions).

EXERCISE 5

1. Sit comfortably in a chair or sofa;
2. Get up;
3. Raise your right arm and your left leg extended sideways, as far as you can;
4. Repeat the movement, now with the left arm and right leg;
5. Sit down again;
6. Repeat this movement 15 times;
7. 🕒 Rest for 30 seconds;
8. Repeat the entire exercise (that is, do one more series of 15 repetitions).
Very well! That’s it for today! Do not forget to repeat these exercises 3 times per week!

**STRETCHING EXERCISES**

For the training to be complete, it is necessary to stretch the muscle groups that have been worked. *See page 88 to guide your stretching exercises.*

Drink water during and after training.

**GOOD TRAINING!**

*Renato Lopes*
Exercise your brain

ATTENTION EXERCISE

YOU WILL NEED A PENCIL/PEN

Arrange the following holidays, in a chronological order, as fast as you possibly can.

EXERCISE 1

- Christmas
- Easter
- Thanksgiving
- Father’s Day
- Labour day
- Halloween
- Saint Patrick’s Day
- Independence Day (Fourth of July)
- New Year’s Eve
- Mother’s day
EXERCISE 2

- Fall of the Berlin Wall
- Pearl Harbor
- JFK assassination
- First moon landing (Apollo 11)
- Atomic bombings of Hiroshima and Nagasaki
- Dissolution of the Soviet Union
- September 11 attacks
- World War I

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
EXERCISE 1

KEY:

1. New Year’s Eve
2. Christmas
3. Thanksgiving
4. Labour Day
5. Independence Day (Fourth of July)
6. Halloween
7. Easter
8. Mother’s Day
9. Father’s Day
10. Saint Patrick’s Day

EXERCISE 2

KEY:

1. First moon landing (Apollo 11), 1969
2. Pearl Harbor, 1941
3. Atomic bombings of Hiroshima and Nagasaki, 1945
4. John F. Kennedy assassination, 1963
5. First moon landing (Apollo 11), 1969
6. Fall of the Berlin Wall, 1989
8. September 11 attacks, 2001

GOOD LUCK!

Rute de Sousa
The ability to communicate is the basis of all interaction and participation in social life, and of relating with others. Hearing, along with vision, has a fundamental role in the contact of the individual with the environment that surrounds him.

Although hearing loss is a very common problem after 65, it is estimated that only 10-40% of affected patients uses hearing aids. This is a notoriously different reality when compared with loss of vision, in which more than 90% of the elderly population wear glasses on a day-to-day basis. However, the consequences of poor correction of hearing loss are like those of vision loss: decreased mobility, social isolation, depression and decreased quality of life.
WHAT IS PRESBYCUSIS?

Presbycusis is the term used to designate deafness related to ageing, the most common sensory deficiency in the elderly. About one-third of the population over the age of 65 has some degree of hearing loss and, over 75, the incidence increases to 60-80%.

Presbycusis manifests as a hearing loss that usually affects both ears, progressively and predominantly at high frequencies.

Over time, it extends to intermediate and low frequencies with marked worsening of the ability to talk, since these are the frequencies most involved in hearing sounds in everyday life.

Tinnitus (buzzing) is sometimes present in these patients, as well as vertigo and imbalance. Because of the ability to listen at higher frequencies, the initial complaint is typically the inability to perceive speech in noisy environments:

“I hear them, but I don’t understand what they say”.

In the early stage of presbycusis, patients have no difficulty in face-to-face conversation in a quiet environment, but this ability is lost where there is background noise, especially in restaurants, meetings or other social events.
The perception of the female voice, usually with higher pitch, is also more difficult. However, in the elderly’s deaf, complaints usually come late, as many are accustomed to living with hearing loss, either by the gradual way it develops or by the belief/acceptance of it as a normal consequence of ageing, or even through social stigma and reluctance to adapt to hearing aids.

Delays in the recognition and treatment of presbycusis associated with progressive loss of language and music comprehension, understanding the location of sound and difficulty in guidance and responding to audible alarms (telephone, buzzer, fire alarms) cause problems of insecurity, social isolation, loneliness and depression with a huge impact on the quality of life of the elderly and the family.
Recently, some studies have been trying to work on the association between hearing loss and an increased risk of cognitive problems, dementia and brain atrophy.

That is, if presbycusis, in addition to the marked impact it has on family and social contact, is also responsible for the decrease in brain stimulation, both in the areas responsible for sonorous processing, and in the areas of language and the brain as a whole. Some papers indicate yes, but it is still an unexplored field.

HEARING AND AGEING

In the hearing process, the ear has the function of capturing the sound waves and converting them into electrical stimuli that will be interpreted at the cerebral level.

Presbycusis is a multifactorial disease, complex and that should not be understood only as dependent on intrinsic and genetic characteristics but also on extrinsic factors and exposure to the environment.

There are multiple factors that may influence the onset of presbycusis. Exposure to noise (acoustic trauma), harmful drugs to the auditory structures (some antibiotics, chemotherapy, diuretics), smoking habits or hormonal changes are factors to consider and that can be prevented.

After 65, systemic and degenerative diseases such as hypertension, diabetes and cardiovascular disease, which may be associated with hearing impairment, are also more common.
Controlling these diseases is a goal in the prevention of presbycusis. Genetic susceptibility to presbycusis has been the subject of much research, with the identification of various genes and genetic alterations associated with this type of hearing loss. The family history of deafness is an important risk factor for the development of presbycusis. It is important to note that in presbycusis there is a progressive loss of hearing, and that it is associated with ageing. However, several other causes of deafness that may occur in any age group should be excluded. For example, Ménière’s disease or acoustic neuroma may be a cause of deafness, especially if it is a unilateral or sudden deafness.

In patients with presbycusis, even with mild to moderate hearing loss, a cold or wax plug can cause significant hearing impairment for day-to-day activities. The evaluation by an otorhinolaryngologist, assisted by audiometric tests, is always advisable.

**PRESBYCUSIS’ TREATMENT**

The approach to presbycusis is, in the first place, the recognition of this symptom by the patient. The collaboration of family and friends is fundamental for the information, acceptance and encouragement needed to seek help and in the entire process of prosthetic adaptation. Some simple behavioural measures can significantly improve the quality of life of the senior with hearing loss, namely: talking in a slow and face-to-face manner, avoiding sources of noise, ensuring that the message was perceived, and so on.
Helping the hearing process, such as with light signals associated with alarms or bells, pre-amplified phones, among others, is fundamental, especially for the elderly who live alone.

The main method used to treat presbycusis is the adaptation of conventional hearing aids (figure 1). These devices, which have evolved significantly over time, provide an effective solution to most hearing loss.

The aesthetic, adaptation and even handling issues for the elderly patient continue to be the main obstacle to their use. However, in the absence of restorative hearing treatments, these prostheses continue to be the first-line treatment. For patients with moderate or deep hearing loss, when hearing aids can’t provide sufficient hearing benefit, the solution involves surgical placement of middle ear implants, or cochlear implants.

The cochlear implant is an implantable hearing aid that electrically stimulates the origin of the auditory nerve, unlike previous ones that would only amplify the sound.
Cochlear implantation is a particularly valid option in patients with verbal maladjustment, presenting a low number of surgical complications and a positive impact on quality of life.

In patients with mild hearing loss in low frequencies, but with severe to profound deafness in the high ones, it is possible to conjugate the hearing aid (hearing low frequencies) with the cochlear implant (for high frequencies) in the same ear, preserving the residual hearing.

Increasingly, the goal of presbycusis treatment is not only to improve acuity and auditory perception, but also to prevent loss of brain function and processing.

Given the constant technological evolution in the means of hearing adaptation, the search for a better quality of life should be the motivation for a timely approach to this population.

Hearing loss is a major problem in the elderly population. With an ageing population, it is necessary to dissociate the idea of loss as something "normal for the age" or as a limitation/incapacity.
Vegetable soup at dinner and lunch improves your well-being a great bunch
Eating vegetable soup at the beginning of your main meals, lunch, and dinner, is an excellent way to guarantee that you easily meet the recommendations for daily vegetable intake.

Soup is a type of meal relatively quick and cheap to make, and one that can be prepared ahead of time to eat later. It also has a high nutritional value due to its richness in vitamins and minerals, as well as a low caloric value.

It perfectly combines a high fiber content with water, contributing to a greater feeling of satiety and a better bowel function. In vegetable soup, we can achieve a better use of vitamins and minerals, since the cooking water isn’t wasted.
It is also a good source of hydration and a healthy and tasty way to cook vegetables.

Lunch and dinner should start with a bowl of vegetable soup. It can also be the only dish of the meal; the ideal solution for a quick meal or for those times when the appetite is poor. It is possible to get a nutritionally balanced meal having soup as your only dish, as long as you add pulses and/or meat. For a “complete” soup, add to your usual recipe, for example, 25g of beans or chickpeas and 30g of chicken.

⚠️ ATTENTION!

Do not forget that the presence of vegetable soup at the table is mandatory, for its nutritional density and low-calorie value.

EAT WELL!

Maria J. Gregório
Are you out of ideas, time or patience to do lunch? **A rich vegetable soup can be the answer.** See how you can make a delicious farmer’s soup.

### Cooking healthy

**FARMER’S SOUP**

<table>
<thead>
<tr>
<th>Time</th>
<th>35 min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Servings</td>
<td>4 people</td>
</tr>
<tr>
<td>Cost</td>
<td>0.80€/person</td>
</tr>
<tr>
<td>Difficulty</td>
<td>Easy</td>
</tr>
</tbody>
</table>

**INGREDIENTS**

- 250g of Chickpeas
- 1 Chicken Breast
- 2 Potatoes
- 1 Onion
- 1 Turnip
- 2 Medium-sized Carrots
- 150g of Marrow Stem Kale (ripped)
- 8 Teaspoons of Olive Oil
- Salt to taste
“I’ve cooked my entire life and I’m enjoying these recipes! I’m actually saving some money!”

Maria Cândida

“LONG AND HEALTHY LIFE” PROGRAM PARTICIPANT
1. Start by soaking the chickpeas the day before.

2. In the following day, cook the chickpeas with 3dl of water. After it is cooked, remove some of the chickpeas and reserve.

3. Add to the pan where the chickpeas were cooked the potatoes, the onion, the turnip and the carrots. Season with salt.

4. After everything is cooked, grab the chicken and chop it into small pieces.

5. Blend the soup with an immersion blender and put it on the stove again, adding the kale, the chopped chicken the remaining chickpeas (whole) and the olive oil. Let it simmer until the kale is cooked.

Nutrition Information per portion (300g)

<table>
<thead>
<tr>
<th>Nutrition</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Protein</td>
<td>14.93g</td>
</tr>
<tr>
<td>Carbohydrates</td>
<td>28.28g</td>
</tr>
<tr>
<td>Sugars</td>
<td>1.56g</td>
</tr>
<tr>
<td>Fat</td>
<td>7.82g</td>
</tr>
<tr>
<td>Saturated</td>
<td>1.83g</td>
</tr>
</tbody>
</table>
Move your body

30 MINUTE WORKOUT PLAN OF PHYSICAL EXERCISE
(REPEAT 3 TIMES THIS WEEK)

This week we will try to improve the mobility of your joints.
Try to do the next exercises.

WARM-UP EXERCISES

The workout always starts with some warm-up exercises. The warm-up exercises are essential to guarantee a good performance of any workout.
See page 85 to guide your warm-up.

TRAINING PLAN

EXERCISE 1

1. Standing, march without leaving the same place, feet about 10 centimetres from the floor;
2. At the same time, raise your hands above the head and then lower them in repeated movements for 30 seconds;
3. 🕒 Rest for 30 seconds;
4. Repeat the entire exercise two more times.
EXERCISE 2

1. Imagine an obstacle on the floor in front of you;
2. Standing, take a step with your right leg, bending your knee, as if you were to overcome the obstacle;
3. Return to the starting position. Make this move 10 times;
4. Repeat the exercise, now with the left leg;
5. Rest for 30 seconds;
6. Repeat the entire exercise (that is, do another series of 10 repetitions with each leg).

EXERCISE 3

1. Standing, raise your right arm and your right leg laterally as far as you can;
2. Lower leg and arm gently;
3. Do this move 15 times;
4. Repeat the movement, now with the left arm and left leg;
5. Rest for 30 seconds;
6. Repeat the entire exercise (that is, do one more series of 15 repetitions to the right and left).
LONG AND HEALTHY LIFE

EXERCISE 4

1. Standing and with your feet apart, squat as far as you can, keeping your arms stretched between your legs;
2. Stand up, turning the body to the right side, at the same time that you raise your arms (like if you were to put an object on top of a shelf);
3. Do this move 15 times;
4. Repeat the exercise another 15 times, turning to the left;
5. Rest for 30 seconds;
6. Repeat the entire exercise (that is, do one more series of 15 repetitions to the right and left).

EXERCISE 5

1. Standing, raise your arms laterally, stretching them, until you reach shoulder height;
2. Keeping the arms in the same position, raise your right leg, bending your knee;
3. Lower the leg gently;
4. Repeat the movement, now with the left leg;
5. Do the two previous moves alternately, 15 times each;
6. Rest for 30 seconds;
7. Repeat once.
EXERCISE 6

1. Standing, step back with your right leg and lean your body forward;

2. Simultaneously raise the arms laterally to shoulder height. Go back to the starting position and do this movement 15 times;

3. Repeat the movement, now taking the step back with the left leg;

4. Rest for 30 seconds;

5. Repeat the entire exercise (that is, do one more series of 15 repetitions with each leg).

STRETCHING EXERCISES

For the training to be complete, it is necessary to stretch the muscle groups that have been worked. See page 88 to guide your stretching exercises.

Have a good week full of physical exercise!

GOOD TRAINING!
Rita Fernandes
Exercise your brain
MEMORY EXERCISE

Are you ready for your next brain work out?
Don’t panic if you can’t do everything. The goal is to challenge yourself!

Study the following words.
Try to remember which are large and which are small.

GOOD LUCK!
Rute de Sousa
LARGE WORDS
SMALL WORDS

KEY:

ILLUSION; MARKER; TABLE
COIL; RHINO; INTENTION; COUCH;

MASSAGE; CHAIR; LIGHTNING
SUNDAY; TELEPHONE; MANSION; FLOWER; TOFFEE;

LARGE WORDS

267
Falling and Fracture Prevention

Guest Expert:

Helena Canhão
Rheumatologist • Full Professor at NOVA Medical School
• Coordinator of EpiDoC Unit, CEDOC – NOVA Medical School

Falls can cause fractures and head trauma, sometimes in a serious way. They may also be a cause of disability, bed confinement, and dependence.

Some individuals die because of fractures and others do not recover the physical and motor function and skills they had before the fracture.

Falls are very common after 65 years and occur in about 25% of individuals, rising to 35% after 75 years and 50% after 80 years and, in about half of the cases, are recurrent. Approximately one in ten falls results in a serious injury, such as a proximal fracture of the femur, other fracture or a subdural hematoma. Falls are the cause of 10% to 14% of recurrences to the emergency service and 4 to 6% of urgent hospitalizations.
Falls occur as a result of causes that are dependent on the individual, such as chronic diseases (arthrosis and depression, for example), and environmentally dependent causes, such as the use of certain medications and lack of safety at home.

In fact, more than 75% of falls occur at home and we know that these falls are often associated with lighting problems (low light and reflections), slippery floors or the existence of wires and cables on the floor, inadequate footwear, the furniture (disorganization, chairs and low benches), presence of carpets, among others.

**CAUSES DEPENDENT ON THE INDIVIDUAL:**

- Balance changes;
- Walking changes;
- Vision or hearing problems;
- Chronic diseases;
- Decreased muscle strength.
CAUSES DEPENDENT ON THE ENVIRONMENT:

- Use of medicines;
- Environmental factors (obstacles, changes of the floor).

Thus, small changes in our lifestyle and the adoption of some protective measures can help you to prevent falls.

1st, TAKE CARE OF YOURSELF!

1. Exercise. Regular physical activity is essential to strengthen the muscles and practice balance. However, you should consult your doctor about the need to wear hip protectors.

2. Check your vision and hearing regularly.

3. Avoid (or reduce as much as possible) medication that can cause dizziness, vertigo or loss of balance (tranquilizers, insomnia medications, etc.).

4. Pay attention to the medication you are taking. Ask your doctor if the medication you are taking can cause changes in balance or coordination. Keep your medication in their original package and write down the reason they were prescribed, the dose and the name of the doctor who prescribed it.
5. Avoid alcoholic beverages.

6. Learn to recognize the moments in which the chances of falling are greater. For example, periods of emotional stress, after starting a new medication or when you are recovering from a prolonged illness.

7. Use appropriate footwear, with low heels and non-slippery rubber soles. At home, avoid walking using only socks or big slippers, or shoes with wear out soles.

8. Sit down when you are putting on or off your shoes.

2nd, MAKE YOUR HOUSE SAFER!

1. Pay attention to stairs! When using stairs, lean on the railing. Mark the first and last step of each flight of stairs with bright tape, making them very visible, and never use stairs without turning the lights on.

2. Always keep your house lit! Turn on the bedside lamps before you get up. Check if the light switches are accessible.

3. Organize the furniture in order to avoid obstacles in the way.

4. In the kitchen, place the objects you use more frequently in hand-reach and use a kitchen cart to move heavy or hot objects from the kitchen to the table.
5. Pay attention to irregular floors in your house and outside.

6. Avoid carpets, but if you have them, use tape to attach them to the floor, or non-slip rubber.

7. Use non-slip wax in waxed surfaces.

8. Buy armchairs or couches easy for you to get up from.

9. Use a non-slip mat or paint in the bathtub or shower floor.

10. In the bathroom, install grab bars by the bathtub, shower and toilet.
11. Use a shower stool to seat while showering or bathing.

12. Avoid electric cords in the floor. If you can’t, lean them well against the walls.

13. Install phone extensions in as many rooms as possible, or keep your mobile close.

3rd, PAY ATTENTION OUTSIDE!

1. If you tend to experience dizziness or difficulties walking, use a cane/crutch.

2. Pay attention when in places you are unfamiliar with or when in places poorly lit.

3. Use the inside of sidewalks and walk slowly.
Self-evaluation

In the last 4 weeks I’ve reached the goals of this program.

- I’ve exercised vigorously for 30 minutes, 3 times a week
- I’ve increased my vegetable soup and fruit consumption and reduced my salt intake
- I’m aware of my oral, vision and hearing problems and visited a specialist; I know how to avoid falls and fractures at home

Place here the sticker that certifies that you have reached this goal.

Note: you can find the stickers on page 385.
CONGRATULATIONS!

YOU HAVE COMPLETED ANOTHER STAGE OF OUR CHALLENGE. WE ARE GETTING CLOSER TO THE FINISH LINE AND WE ARE VERY HAPPY WITH YOUR PARTICIPATION. WE HOPE TO CONTINUE HELPING YOU IMPROVE YOUR LIFE AND YOUR HEALTH.

STAY WITH US IN THIS ADVENTURE!

The Editorial team
Week 9
Eat vegetables plenty, keep your body wealthy
When choosing fruit and vegetable products, always go for the ones in season. They are cheaper, rich in nutrients and even tastier.

Shop in grocery stores and farmers’ markets, because the fruit and vegetables there are fresher and usually cheaper. When buying those products, think about the exact quantity you need, so that you can lower the risk of having large quantities in the fridge that end up spoiling or losing its nutritional value.

We know that these foods are not usually cheap, but to meet the World Health Organization recommendations of at least 400g a day (the equivalent of 5 portions of fruits and vegetables products), we will spend up to 1.5€ daily, per person.
In addition to prevention, these foods are also important for a good managing of these diseases, when they are already present.

PREVENTS:
- DIABETES
- HIGH CHOLESTEROL
- HEART ATTACKS
- THROMBOSIS
- CANCER
- OBESITY

As you see, it’s easy! Next week we will talk about stews, or “one pan dishes”, and the benefits associated with its consumption.

EAT WELL!
Maria J. Gregório
Get tasty salads by trying different combinations of vegetables products. **Roasted vegetables are an excellent option.**
1. Chop the vegetables at an angle, with a thickness of about 0.5cm. Place them in a tray and season them with salt and minced garlic. Drizzle with olive oil and put it in a hot oven. They should end up \textit{al dente}.

2. In a separate bowl, add the olive oil, the juice, and zest of half a lemon and the bay leaves. Stir well, add the figs (chopped in small pieces) and the laminated almonds.

3. Drizzle the vegetables with this sauce.

Nutrition Information per portion (200g)

<table>
<thead>
<tr>
<th>Nutrition Information per portion (200g)</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy (calories)</td>
<td>229.08 Kcal</td>
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<tr>
<td>Protein</td>
<td>5.5g</td>
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<tr>
<td>Carbohydrates</td>
<td>17.88g</td>
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<tr>
<td>Sugars</td>
<td>16.6g</td>
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<tr>
<td>Fat</td>
<td>13.12g</td>
</tr>
<tr>
<td>Saturated</td>
<td>1.5g</td>
</tr>
</tbody>
</table>
This week we propose you a challenge! We will improve your coordination and muscle strength by doing these exercises. Good training!

WARM-UP EXERCISES

The workout always starts with some warm-up exercises. The warm-up exercises are essential to guarantee a good performance of any workout. See page 85 to guide your warm-up.

Drink water during and after training.
TRAINING PLAN

NOTE: If you have any injury / illness that affects your shoulders, elbows, wrists, or arm muscles, or if you feel unable to do the exercises with weights, you can do the exercises without them.

⚠️ ATTENTION!

For your safety, make sure the chair or sofa is on a flat surface. The height of the chair or sofa should allow you to sit with both feet on the floor and knees bent at 90 degrees. The chair may have support for the arms.

EXERCISE 1

1. Sit on a chair or sofa, with a weight of 1kg in your hands (for example, a rice package);
2. Get up;
3. Flex your arms towards your chest and lower them back, always with your elbows close to your body;
4. Sit back;
5. Do this move 10 times;
6. 🌿 Rest for 1 minute;
7. Repeat the entire exercise (that is, do one more series of 10 repetitions).
EXERCISE 2

1. Sit on a chair or sofa, with a weight of 1kg in your hands (for example, a rice package);
2. Get up;
3. Raise your arms extended above your head;
4. When your arms are above your head, flex them back. Do the opposite movement, bringing the arms gently to the initial position;
5. Do this move 10 times;
6. Rest for 1 minute;
7. Repeat the entire exercise (that is, do one more series of 10 repetitions).

ATTENTION!

If any of the exercises causes pain or discomfort it should not be performed.
EXERCISE 3

1. Sit on a chair or sofa, with a weight of 1kg in your hands (for example, a rice package);
2. Place your feet on the floor;
3. Raise your right arm with the weight in your hand above your head, and lower it slowly, 10 times;
4. Make the same movement, now with the left arm;
5. Rest for 1 minute;
6. Repeat the entire exercise (that is, do one more series of 10 repetitions with each arm).
EXERCISE 4

1. Sit on a chair or sofa, with a weight of 1kg in your hands (for example, a rice package);
2. Raise your right arm with the weight in your hand, above your head, while extending the left leg without lifting the thigh of the chair;
3. Lower your arm and leg gently;
4. Repeat this movement 10 times;
5. Do the same movement, now with the left arm and right leg;
6. Rest for 1 minute;
7. Repeat the entire exercise (that is, do one more series of 10 repetitions with each side).
EXERCISE 5

1. Sit on a chair or sofa with your body slightly leaning forward and with a weight of 1kg in your hands (for example, a rice package);
2. Lean your body slightly forward, keeping your back straight;
3. Stretch the right arm by the side of your body, towards the floor;
4. Bend the right arm back, pulling the weight up, with the elbow passing close to the body, and lower it gently;
5. Repeat this movement 10 times;
6. ☀ Rest for 1 minute;
7. Repeat the entire exercise (that is, do one more series of 10 repetitions with each arm).
EXERCISE 6

1. Sit on a chair or sofa with your body slightly leaning forward and with a weight of 1kg in your hands (for example, a rice package);

2. Keep your back straight;

3. Stretch your right arm at the side of your body, towards the floor;

4. Raise the right arm sideways, without bending it, until you reach shoulder height, and lower it gently;

5. Repeat this movement 10 times;

6. Make the same move, now with the left arm;

7. Rest for 1 minute;

8. Repeat the entire exercise one more time.
STRETCHING EXERCISES

For the training to be complete, it is necessary to stretch the muscle groups that have been worked. See page 88 to guide your stretching exercises.
Order the followings actions so that they form a coherent sequence.

**SEQUENCE 1 (EXAMPLE)**

2. Select a washing program.
7. Iron the clothes.
5. Hang the clothes.
1. Put the clothes in the washing machine.
6. Take the dry clothes from the hanger.
3. Wait for the machine to finish washing.
8. Put the clothes in the wardrobe.
4. Take the clothes off the washing machine.
SEQUENCE 2

☐ Leave for work.
☐ Put on the uniform.
☐ Take a shower.
☐ Get up five minutes later.
☐ The alarm clock rings.
☐ Warm the milk on the stove top.
☐ Have breakfast.
☐ Take the bus.

SEQUENCE 3

☐ I don’t have it either.
☐ I’ll get sliced ham instead.
☐ So what do you have?
☐ I don’t have it.
☐ Salami.
☐ I want 1 pound of cheese, please.
☐ Then I’ll take 4oz of salami.
☐ Good morning! What will you get?
SEQUENCE 4

- The movie starts.
- I buy two movie tickets.
- It finishes late and we go home.
- The doorman checks the tickets.
- I give him a good tip.
- The employee gets us good seats.

SEQUENCE 5

- I shower quickly.
- I open the tap.
- I take off my underwear.
- I check the water temperature.
- Take off my pants and shirt.
- I change clothes.
- I dry off vigorously.
### Sequence 2

<table>
<thead>
<tr>
<th>1</th>
<th>Leave for work.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Put on the uniform.</td>
</tr>
<tr>
<td>3</td>
<td>Take a shower.</td>
</tr>
<tr>
<td>4</td>
<td>Have breakfast.</td>
</tr>
<tr>
<td>5</td>
<td>Take the bus.</td>
</tr>
</tbody>
</table>

### Sequence 3

<table>
<thead>
<tr>
<th>1</th>
<th>I don't have it either.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>I want 1 pound of cheese, please.</td>
</tr>
<tr>
<td>3</td>
<td>So what do you have?</td>
</tr>
<tr>
<td>4</td>
<td>I'll get sliced ham instead.</td>
</tr>
<tr>
<td>5</td>
<td>I don't have it either.</td>
</tr>
</tbody>
</table>

### Sequence 4

<table>
<thead>
<tr>
<th>1</th>
<th>Good morning! What will you get?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Then I'll take 4 oz of salami.</td>
</tr>
<tr>
<td>3</td>
<td>Salami. I don't have it.</td>
</tr>
<tr>
<td>4</td>
<td>So what do you have?</td>
</tr>
<tr>
<td>5</td>
<td>I'll get sliced ham instead.</td>
</tr>
<tr>
<td>6</td>
<td>Then I'll take 4 oz of salami.</td>
</tr>
</tbody>
</table>

### Sequence 5

<table>
<thead>
<tr>
<th>1</th>
<th>I open the tap.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Take off my pants and shirt.</td>
</tr>
<tr>
<td>3</td>
<td>Check the water temperature.</td>
</tr>
<tr>
<td>4</td>
<td>Take off my underwear.</td>
</tr>
<tr>
<td>5</td>
<td>Shower quickly.</td>
</tr>
<tr>
<td>6</td>
<td>Warm the milk on the stove top.</td>
</tr>
</tbody>
</table>

### Key:

1. Put on the uniform.
2. Take a shower.
3. I don't have it either.
4. I'll get sliced ham instead.
5. Leave for work.
6. Have breakfast.
7. Warm the milk on the stove top.
8. Take the bus.
When we talk about polymedication we are referring to the use of multiple medications (5 or more different medications per day) and/or to the taking of more drugs than what is medically necessary. However, taking multiple medications is sometimes necessary, especially to people with complex clinical situations and/or multiple chronic diseases.

For the sake of simplification of our message, let’s restrict the concept of polymedication to the excessive use of drugs, above what is medically necessary. This practice is frequent in senior population and is an important cause of morbidity and mortality.
Polymedication increases the risk of side effects, namely falls, mental confusion, sleepiness, trembling and swelling of the members.

These adverse reactions can be mistaken by other frequent diseases in the elderly and can lead to the prescription of yet another medication to mitigate the presented symptom. The excessive use of medications also leads to the diminution of the adherence to the therapeutic plan and increases the risk of drug interactions, which undermines the control of chronical diseases.
HOW TO AVOID THE PROBLEMS ASSOCIATED TO POLYMEDICATION?

1. Take only the medication prescribed by your doctor.

2. Keep a log of all your chronical medication with you at all times, and show it to every doctor you see.

3. Do a regular review of your medication with your family doctor. This review may include checking the therapeutic effect, adjusting doses, possible adverse reactions, drug interactions and adhesion to medication.

4. Talk to your doctor about your doubts, concerns and expectations related to your treatment. The communication between physician and patient is fundamental to therapeutic success and the reduction of unwanted effects.

5. Improve your lifestyle – exercise regularly, keep a healthy diet, drink water and don’t smoke. Don’t forget that changes in your lifestyle can lead to a reduction in the need of medications.
Week 10
A proper stew is a decent meal... or two!
“One pan dishes”, where the method of cooking is the stew, are very typical of the Mediterranean tradition.

Examples of these dishes are the “Jardineiras” and “Caldeiradas”, in Portuguese, where we combine a great variety of products in the same cooking. These dishes provide a healthy method of cooking since not wasting the cooking water allows us to get all the nutrients released in it.
But do you know how to make a healthy stew?

1. Place a considerable amount of onion, garlic, leek, tomato, carrots, pepper and other vegetables you like in the pan, add a bit of water and let it cook in low heat.

2. Add the products you intend to cook (meat/fish) and a little more water.

3. In the end, add a small amount of olive oil (about 2 teaspoons per person) and let it stew. Do not forget to use plenty of vegetables and pulses in these dishes!

EAT WELL!
Maria J. Gregório
Using a single pan to cook your meal has many advantages. No dirty dishes, an easier cook and no wasted nutrients. Watch the example of the rabbit stew.

**INGREDIENTS**

1 RABBIT • 1 MEDIUM ONION • 2 GARLIC CLOVES • 1dl OF WHITE WINE • 1dl OF WATER • 8 TEASPOONS OF OLIVE OIL • 500g OF TOMATO • 300g OF POTATOES • 250g OF CARROTS • 200g OF PEAS • 200g OF GREEN BEANS • SALT TO TASTE • 1 BAY LEAF AND 2 CLOVES

**NOTE:** You can replace the rabbit with chicken.

1. Make a stew with garlic, chopped onion, tomato, bay leaf, clove, olive oil, and water.

2. Add the rabbit chopped into pieces with the clove and salt, and let it stew.

3. After that, add the wine and, when the meat is tender, 1 dl of water. When it starts to boil, add the diced potatoes and the remaining vegetables and let it cook.
### Nutrition Information per portion (300g)

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ENJOY YOUR MEAL!

*Jutta Nolze*
This week improve your coordination and flexibility, by using a utensil which you certainly have in your house - the broom. Good training!

WARM-UP EXERCISES

The workout always starts with some warm-up exercises. The warm-up exercises are essential to guarantee a good performance of any workout. See page 85 to guide your warm-up.

TRAINING PLAN

NOTE: If you prefer, you can do these exercises without the broom.

EXERCISE 1

1. Standing, grab the broom handle, put your feet slightly apart at shoulder length, keeping your back straight;
2. Slowly lower the pelvis towards the floor, as far as you can;
3. Return to starting position, stretching your legs and lifting the pelvis;
4. Make this movement 15 times;
5. Rest for 30 seconds;
6. Repeat the entire exercise (that is, do one more series of 15 repetitions).
EXERCISE 2

1. Standing, grab the broom handle with your hands, arms stretched at shoulder width, straight back and pushing your belly button in;
2. Raise the broom above head level and lower it back to the starting position. Keep your arms extended at all times;
3. Do this movement 15 times;
4. Rest for 30 seconds;
5. Repeat the entire exercise (that is, do one more series of 15 repetitions).

EXERCISE 3

1. Standing, grab the handle of the broom with your hands, with your arms extended at the width of your shoulders;
2. Bend your arms, raising the broom to the shoulder area;
3. Push the broom towards the ceiling, then return to the position mentioned in point two, before finally returning to the initial position, gently;
4. Make this movement 15 times;
5. Rest for 30 seconds;
6. Repeat the entire exercise (that is, do one more series of 15 repetitions).
ATTENTION!

To avoid falls, do these exercises on a flat surface, and wear comfortable footwear.

EXERCISE 4

1. Standing, with your arms extended, grab the broom handle with your hands apart;
2. Spin the broom clockwise until you reach a vertical position;
3. Return to starting position;
4. Make the same movement, now in an anti-clockwise position;
5. Do the two previous movements alternately, 15 times each;
6. 🕒 Rest for 30 seconds;
7. Repeat the entire exercise (that is, do one more series of 15 repetitions).
EXERCISE 5

1. Standing with your arms extended, grab the broom handle at shoulder level, with your hands apart;
2. Turn your body to the right and left sides alternately, always returning to the initial position;
3. Make this move 15 times for each side;
4. Rest for 30 seconds;
5. Repeat the entire exercise (that is, do one more series of 15 repetitions for each side).
**EXERCISE 6**

1. Standing, grab the broom on your right, at an arm’s length;
2. Flex your left arm, placing your hand on your left shoulder;
3. Lean your body towards the broom and stretch your left arm up;
4. Return to starting position;
5. Do this move 15 times;
6. Repeat the same exercise, now with your left arm grabbing the broom and right arm resting on your shoulder;
7. Rest for 30 seconds;
8. Repeat the entire exercise (that is, do one more series of 15 repetitions for each side).

**STRETCHING EXERCISES**

For the training to be complete, it is necessary to stretch the muscle groups that have been worked. **See page 88 to guide your stretching exercises.**
“I really enjoyed the exercises with the chair. I lost weight and improved my mobility! It was fabulous, five stars.”

Manuel Luta

“LONG AND HEALTHY LIFE” PROGRAM PARTICIPANT
Read the clues and discover the object they’re referring to.

1. They’re made of wool, protect you from the cold, meant to be wore on your feet.
2. They sparkle, they are in the sky, they show up at night.
3. Are meant to be used in your face, help you to see, they have lenses.
4. They’re usually tall and thin, made from wax, illuminate.
5. It’s liquid, it’s white, it is usually put in the coffee.
6. It is round, it is used to play lots of sports.
7. It is a serrated tool, it is used to cut wood.
8. It is a European place famous for pizza and spaghetti, its capital is Rome.
9. Rabbits like them, they’re orange, they grow in the soil.
10. We do it all the time, it is vital, lungs allow us to do it.
11. It flies, makes nests in trees, eats earthworms.
12. It’s a relative, it is older, it’s our father’s father.
13. Falls from the sky, it is white, it can be used to create figures.
14. It has lots of sand, it is by the sea, we go there during the summer.
15. There are a lot of animals in it, it is a park.
16. It comes from the sea, it is a jewel, oysters make it.
17. It is a kind of glass, it reflects things, we use it to see ourselves.
18. It is made from paper, it has pages, we can read it.
19. It is used in the water, it runs with oars.
20. It is celebrated every four years, it's an international sports event, a torch is used during it.

GOOD LUCK!
Rute de Sousa

KEY:

1. Socks
2. Stars
3. Glasses
4. Candles
5. Milk
6. Ball
7. Handsaw
8. Italy
9. Carrots
10. Breathe
11. Bird
12. Grapeshather
13. Snow
14. Beach
15. Zoo
16. Pearls
17. Mirror
18. Book
19. Boat
20. The Olympics
This text aims to contribute to an improvement in health education, literacy and self-care of the elderly, concerning seasonal changes, making seniors more autonomous and responsible regarding their health and their community.
Seniors are more vulnerable to the heat. That happens due to changes in the body, typical for that age, and because of chronical diseases and the use of some medications, among other factors.

It is common, for example, that seniors don’t feel thirst, which leads to a lower ingestion of fluids that can result in dehydration. It is also common that they feel less heat and have a lower ability to regulate body temperature, becoming more exposed to the effects of intense heat in health.

It is important to understand how to prevent the effects of heat in your and your relatives’ health, so that they keep healthy during heat waves.

SELF-CARE OF THE ELDERLY IN PERIODS OF HEAT

Pay attention to the recommendations of the Directorate-General of Health we present next, and that consist in essential cares for seniors in periods of heat:
KEEP INFORMED!

- About the weather and the UV index (radio, TV, newspaper, internet, mobile, etc.), so you can be fully prepared.

HYDRATE YOURSELF!

- Drink water even when you are not thirsty;
- If you are leaving the house, take a water bottle with you;
- Avoid drinks that can increase dehydration, such as alcoholic beverages, caffeinated ones (tea, coffee, etc.) and drinks with a high amount of sugar.

COOL DOWN!

- Prevent your home from overheating. In the periods of greater heat, close the blinds or shutters. By late afternoon, when the temperature drops and outside is cooler than inside, let the air circulate throughout the house;
- Avoid using the oven or other appliances that heat the house;
- Stay in cool or air-conditioned spaces;
• When necessary, look for climatized spaces (cool or air-conditioned) where you can spend a few hours during the day;

• Take a tepid shower to cool down;

• Have lighter meals, with less fat and few spices, and choose to eat more times throughout the day;

• Use light, loose and lightly-coloured clothes;

• Avoid staying in vehicles exposed to the sun, specifically in periods of intense heat, especially in traffic and parking lots. If the car doesn’t have air-condition, don’t close the windows completely.

⚠️ AVOID DIRECT EXPOSURE TO UV RADIATION

• Avoid direct exposure to the sun, especially between 11am and 5pm;

• If you must go outside in the hours of greater heat, try to walk in the shadow, use a wide-brimmed hat, UVA and UVB protected sunglasses and sunscreen with factor protection of at least 30.
Watch out for UV lights.

⚠️ **TAKE CARE OF YOUR MEDICINES**

- Read the medicines’ storage instructions in their packages and keep them in a cool place or in the refrigerator, according to instructions.
LONG AND HEALTHY LIFE

AVOID GASTROINTESTINAL INFECTIONS CAUSED BY THE CONSUMPTION OF CONTAMINATED FOOD

WHEN BUYING:

• Keep your trolley or shopping cart clean. The remains of food, dirt and liquids can contaminate other foods;
• Always check the expiration date of products;
• Always check if the product’s storage conditions are adequate;
• Don’t buy products with damaged packages;
• Fresh produce, such as meat, fish and seafood, vegetables and fruit should be in good condition, with their characteristic look, colour, smell and texture;
• Keep fresh produce and products ready to consume separate;
• Purchase the refrigerated or frozen products in the end.

WHEN PREPPING:

• Keep countertops, appliances and kitchen utensils clean;
• Wash your hands properly before and after making food, and after using the toilet;
• Keep vegetables and fruits separate from animal produce and eggs;
• Keep ready to be consumed food separate from other raw food, peels, trims and packages;
• Use different utensils for raw and cooked foods;
• Wash your vegetable products under running water;
• Wash the vegetables and fruits that will be eaten raw in running water. These foods should preferably be disinfected;
• Don’t wash animal produce and eggs with water;
• Don’t thaw food at room temperature. Use the refrigerator to do it.

WHEN COOKING:

• Serve your meals immediately after cooking them;
• Make sure the food is properly cooked;
• Meat shouldn’t have pink spots or traces of blood; fish flesh should fall apart easily and not be hard to flake (with rubbery texture); eggs should have a hard-boiled yolk;
• Heat the leftovers properly;
• Pay specially attention when using the microwave and make sure the food is cooked and warmed throughout;
• Food served cold, such as Olivier salad, should be kept in the refrigerator until the time of the meal.
WHEN STORING:

- Keep the leftovers in the fridge immediately after the meal. After being cooked, food can’t be kept at room temperature;
- Don’t re-refreeze food that has been thawed;
- Store ready foods and leftovers in clean and closed containers in the fridge. Cooked food can be stored in the fridge for up to 4 days;
- Keep different types of foods separate in your fridge: ready to eat foods; vegetables and fruits; animal produce and eggs;
- Pay attention to expiration date and storing conditions of packaged products. After opening packages, a lot of them should be kept in the fridge and must be consumed within 4 days.

STAY IN TOUCH AND GET HELP WHEN NEEDED

- Have the number of someone attentive and available (family, friend, neighbour);
- Pay attention to other elderly people who live alone (family, neighbours, friends) and keep them informed about what to do in intense heat;
- Consult your doctor and ask if you should have special precautions in periods of intense heat, especially if you have a chronic illness, if you take regular medication, if you are in a low-sodium diet or if you have fluid restriction.
• Seek help immediately if you have any sign or symptom associated with excessive heat, such as dizziness, headache, fatigue and weakness, nausea, vomiting, fever, excessive sweating or absence of sweat production, red, hot and dry skin, very slow or very fast heartbeat.

⚠️ TRAVEL SAFELY

• If you are travelling or spending the Summer with your relatives, pack leisurely so you don’t miss anything in your stay;

• The needs vary from person to person and from place to place. The following list aims to help you know what to take:
  - Proper clothing;
  - Sunscreen with a factor protection of at least 30;
  - UVA and UVB protecting sunglasses;
  - Wide-brimmed hat;
  - Health information: blood type, diseases, allergies, special precautions and medication;
- All the medicines you are taking in sufficient amount for one and a half times the duration of your stay. Medication for pain, fever, insect bites and allergies;
- Digital thermometer;
- Different sized bandages;
- Sunburn cream;
- Insect repellent, if necessary;
- Book, magazine or other leisure material.

- Depending on your health condition or the weather conditions of your destination, it may be advisable to consult your doctor to prepare you for your trip.
So my health I can improve, sugar from my life I’ll remove
The sugar we add to our food is clearly unnecessary, since it provides the so-called empty calories. It is high in calories and have a low nutritional value because of its low content of vitamins, minerals, and fibers.

The WHO recommends that the sugar consumption should not be higher than 10% of the total energy intake, which represents to about 50g or 10 teaspoons for a healthy adult. However, it is always best to consume as little as possible, since it is associated with the development of dental caries, weight gain and increasing risk of developing some chronic diseases.

A soda has about 10 teaspoons of sugar, which is the maximum daily amount recommended by the WHO.
In fact, the sugars we need are naturally present in food and cereals, meaning in the bread, rice, pasta or potatoes, milk, and dairy, but also in the fruit we eat. All processed food with added sugars, such as cookies, biscuits, cakes, breakfast cereals, sodas and juices, and ice creams, chocolates and other treats, should be avoided. All these products have extremely high amounts of sugar.

Leave the consumption of sugar and sugary products only for special days or celebrations, and when you do, do not forget to increase your physical activity.

EAT WELL!
Maria J. Gregório
During celebrations, we know that desserts are present. **When you make a sweet dessert, do not forget to reduce the amount of sugar.** In this recipe, we use honey, which must also be used in moderation.

---

**Cooking healthy**  
**OAT AND FLAXSEED CURD WITH CINNAMON**

---

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**Nutrition Information per portion (200g)**

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ATTENTION!

Honey consists essentially of sugar, so it should be used in moderation.
INGREDIENTS
1/2L LITER OF MILK • 4 TABLESPOONS OF OAT FLOUR • 2 TABLESPOONS OF GROUNDED FLAXSEED • 2 RIPE BANANAS • 2 TEASPOONS OF CINNAMON • 2 TEASPOONS OF HONEY • 2 EGG YOLKS

1. Remove part of the milk and reserve in a bowl. Put the remaining in a pan over low heat.

2. To the bowl with some milk, add the oat flour and flaxseed, the honey and the cinnamon.

3. Add the mixture in the bowl to the pan, mixing all the time. Let it cook for 2 minutes. After that, remove the pan from the heat and add the egg yolks slowly, so they don’t curdle, mixing very well.

4. Put the pan back over the heat, adding the bananas cut into pieces. Serve in small bowls, warm or cold.

ENJOY YOUR MEAL!

Jesla Robson
Move your body
30 MINUTE WORKOUT PLAN OF PHYSICAL EXERCISE
(REPEAT 3 TIMES THIS WEEK)

We invite you to try these exercises that increase muscular strength. If you have any joint disease in your arms, do not do these exercises with weights (bottle of water, for example). Good training!

WARM-UP EXERCISES

The workout always starts with some warm-up exercises. The warm-up exercises are essential to guarantee a good performance of any workout. See page 85 to guide your warm-up.
**TRAINING PLAN**

**NOTE:** If you have any injury / illness that affects your shoulders, elbows, wrists, or arm muscles, or if you feel unable to do the exercises with weights, you can do the exercises without the water bottle.

**EXERCISE 1**

1. Sit on a chair or sofa with a water bottle in your hands;
2. Stand up and raise your arms outstretched to the front of your body at shoulder height;
3. Lower your arms and sit down again;
4. Do this movement 12 times;
5. Rest for 1 minute;
6. Repeat the entire exercise (that is, another series of 12 repetitions).

**EXERCISE 2**

1. Sit on a chair or sofa with a bottle of water in your hands;
2. Stand up, flex your arms towards your chest and lower them gently;
3. Sit back;
4. Do this movement 12 times;
5. Rest for 1 minute;
6. Repeat the entire exercise one more time.
EXERCISE 3

1. Sit on a chair or sofa;
2. Place your feet on the floor;
3. Grab a bottle of water in front of you with your arms extended at shoulder level;
4. Pass the bottle to the right hand, stretching your right arm to the side, without lowering it;
5. Return to starting position;
6. Make the same movement, now with your left arm;
7. Do the two previous movements alternately, 15 times for each side;
8. Rest for 1 minute;
9. Repeat the entire exercise (that is, do one more series of 15 repetitions for each arm).
EXERCISE 4

1. Standing, grab a bottle of water in front of your thighs;
2. Then flex your arms while raising your right leg, bending your knee. Return to starting position;
3. Repeat the exercise with your left leg;
4. ☀ Rest for 1 minute;
5. Repeat the entire exercise.
EXERCISE 5

1. Standing, grab a bottle of water;
2. Flex your arms towards your chest;
3. Stretch your arms up and turn them behind your head;
4. Doing the opposite movement, bring your arms gently to the starting position (stretched over the head);
5. Make the movement of flexing and stretching the arms behind the head 15 times;
6. 🕒 Rest for 1 minute;
7. Repeat the entire exercise (that is, do one more series of 15 repetitions).
Very well! Inhale and exhale!
Now, do the stretching program!
Do not forget to repeat these exercises 3 times during this week!

**STRETCHING EXERCISES**

For the training to be complete, it is necessary to stretch the muscle groups that have been worked. *See page 88 to guide your stretching exercises.*

GOOD TRAINING!
Renato Lopes
Say to which **object** the following elements **belong to**.

**NOTE:** There is more than one right answer.

**EXAMPLE:**
To which object do lenses belong? They belong to glasses.

- **Leaves** - Trees
- **Nails** -
- **Fingers** -
- **Teeth** -
- **Pages** -
- **Pedals** -
• Eyelashes - 
• Mattress - 
• Steps - 
• Waves - 
• Chimney - 
• Insole - 
• Steering wheel - 

KEY:

STEERING WHEEL - CAR; BUS
SHOE 
INSOLE 
CHIMNEY - HOUSE; ROOF
WAVES - SEA; OCEAN
STAIRS 
BED
EYELASHES - EYES
PEDALS - BICYCLE
TEETH - MOUTH
NAILS
FINGERS
PAGES - BOOKS
FINGERS - HANDS
Expert corner

FOOD SAFETY AND HYGIENE

GUEST EXPERT:

Maria Cristina Teixeira Santos
Professor at University of Porto’s Faculty of Nutrition and Food Science

Food can be contaminated at different points in the food chain, from primary production to consumption. Being contaminated, it contains substances that are foreign to them and can be dangerous.

These substances or hazards, which may be of a physical nature (sands, sticks, metal), chemical (pesticides, detergents, drug residues) or biological (bacteria, viruses, parasites), change the composition and characteristics of the food and may be harmful to those who consume them.
Most foodborne diseases result from the ingestion of food contaminated by microorganisms that may cause infections or be toxic. Microorganisms are found everywhere, such as on land, air, soil, water. But they are also in the human (skin, hands, nails, nose, mouth and intestines), on the surfaces of plants and animals, on food and on surfaces of utensils and equipment.

Knowing that foods are carriers of microorganisms and are a favourable environment for their development, there are many factors that can contribute to the ingestion of contaminated food and, consequently, be the reason for foodborne diseases, also in our homes. Foods that will not be cooked before being ingested are of greater risk because cooking is a process that will destroy many of the bacteria present.

Handling practices in the kitchen influence the risk of survival and multiplication of microorganisms, as well as the cross-contamination of other foods. The most common mistakes in the handling and preparation of food in our homes are related to the incorrect temperature and time used in food preservation and confection, and all activities that result in cross-contamination.

To prevent and avoid foodborne diseases, it is necessary to understand, adopt and carry out a set of good hygiene practices that consider the correct purchase, transportation, storage, preparation and conservation of food.
Those responsible for the preparation of meals should adopt strict care in both personal hygiene and food handling, to prevent contamination and preserve the proper characteristics of food. Handling practices in the kitchen influence the risk of survival and multiplication of microorganisms, as well as the cross-contamination of other foods.

The environment in which meals are prepared needs to be clean, including work surfaces, utensils and equipment. The preparation area must be free of unnecessary objects, such as decorative objects. The organization guarantees an adequate space for the handling of foods reduces the physical and mental effort and avoids accidents. Good consumer practices can influence the impact of food on health.

The guidelines for good hygiene and food safety practices based on the World Health Organization's "Five Keys to Safer Food" are a set of simple, easy to remember and use indications that have a sound scientific basis and can contribute to the hygiene and safety of food.

The basic rules to remember are: use safe water and raw materials; keep foods, surfaces and utensils clean; separate raw food from cooked food; cook food thoroughly and keep it at safe temperatures.
FIVE KEYS TO SAFER FOOD

1. KEEP CLEAN

- Wash your hands before starting the preparation of food, and frequently along the process; wash your hands after using the toilet;

- Wash and sanitize all surfaces, utensils and equipment used for food preparation, before and after prepping and cooking the food;

- Protect kitchen areas and food from insects, pests and other animals – keep food covered or in closed containers; keep garbage bins closed and take out the trash regularly; keep pets away from preparation areas.

While most microorganisms do not cause disease, dangerous microorganisms are widely found in soil, water, animals and people. These microorganisms are carried on hands, wiping cloths and utensils, especially cutting boards, and the slightest contact can transfer them to food and cause foodborne diseases.
2. SEPARATE RAW AND COOKED FOOD

- Separate raw meat, poultry and seafood from other foods (at all prepping times);

- Use separate utensils and equipment such as knives and cutting boards for handling raw food. You should use different knives and cutting boards for handling raw and cooked foods, and for vegetable and animal produces;

- Food should be kept in their original packages and, after being open, should be properly stored and identified;

- Store food in closed containers to avoid contact between raw and prepared foods;

- In the fridge, store raw meat, poultry and fish underneath prepared food to avoid cross-contamination.

Raw food, especially meat, poultry and seafood and their juices, can contain dangerous microorganisms which may be transferred onto other foods during food preparation and storage.
3. COOK THOROUGHLY

- Cook food thoroughly, especially meat, poultry, eggs and seafood (≥75°C);

- Soups and stews (liquid food) should be cooked in temperatures over 70°C to make sure they are microbiologically safe, but should be boiled for at least one minute;

- If possible, use a thermometer to check the temperature of cooking. For meat and poultry, make sure that juices are clear, not pink;

- Proper cooking can kill almost all dangerous microorganisms. Studies have shown that cooking food to a temperature of 70°C can help ensure it is safe for consumption. Foods that require special attention include minced meats, rolled roasts, large joints of meat and whole poultry.

  Proper cooking can kill almost all dangerous microorganisms. Studies have shown that cooking food to a temperature of 70°C can help ensure it is safe for consumption. Foods that require special attention include minced meats, rolled roasts, large joints of meat and whole poultry.
4. KEEP FOOD AT SAFE TEMPERATURES

- Do not leave cooked food at room temperature for more than 2 hours; it also applies to all foods that need to be refrigerated;

- Refrigerate promptly all cooked and perishable food (preferably below 5°C);

- Keep cooked food piping hot (more than 60°C) prior to serving;

- Do not store food too long even in the fridge;

- Food that needs to be refrigerated should be kept in the fridge between 0°C and 5°C (meaning, 0°C < temperatures ≤ 5°C);

- Frozen food should be stored in a temperature of -18°C (≤-18°C);

- Do not thaw frozen food at room temperature. Thaw them in the fridge or using the microwave. Thawed food should be cooked immediately;

- You should pay special attention to the conservation time and temperature of food throughout the process from buying, transport, storage, prepping, cooking and eating it.
Microorganisms can multiply very quickly if food is stored at room temperature. The danger zone is between 5°C and 60°C, being favourable to multiplication of microorganisms. By holding food at temperatures below 5°C or above 60°C, the growth of microorganisms is slowed down or stopped. Some dangerous microorganisms still grow below 5°C.

5. USE SAFE WATER AND RAW MATERIALS

- Use safe water or treat it to make it safe;
- Select fresh and wholesome foods;
- Choose foods processed for safety, such as pasteurized milk;
- Wash fruits and vegetables, as well as other vegetable products, thoroughly, especially if eaten raw;
- Do not use food beyond its expiry date. During storage, food should be kept in a way that allows a proper stock rotation, with the product with a closer expiry date being the first to be used.
It is very important that you evaluate the quality of the food you purchase. Read the labels and other information on the package. When in doubt, ask for help with the staff;

- You should reject inappropriate raw products, such as:
  - Dirty or damaged packages that jeopardize the integrity of the product;
  - Products outside their expiry date;
  - Overly ripped, yellowy, wilted, rotten or mouldy fruits and vegetables;
  - Cracked, broken and rotten eggs;
  - Meat, poultry and seafood with questionable aspect, smell, consistency/texture and taste.

Raw materials, including water and ice, may be contaminated with dangerous microorganisms and chemicals. Toxic chemicals may be formed in damaged and mouldy foods. Care in selection of raw products and simple measures such as washing and peeling may reduce risk.
Thus, briefly and in an easy way for all this to operate, the secret lies in:

**KEEP CLEAN** - Those who handle food should have strict care in personal hygiene; all surfaces, equipment and utensils should be kept clean.

**KEEP COLD** - You should avoid interrupting the cold chain; food should be stored at proper temperature.

**KEEP HOT** - Cook food at proper temperatures; you should make sure that the entire piece gets to a high temperature.

**PREVENT CROSS-CONTAMINATION** - You should take all the steps to prevent cross-contamination of food, such as separating raw and cooked food, noting that equipment and utensils should also be different.
“I tried all the recipes to reuse what I already had at home and learned that you should not mix some foods.”

Jorge Barata

“LONG AND HEALTHY LIFE” PROGRAM PARTICIPANT
Week 12
A plate full of beans to feel like when we were teens
Pulses... do you know exactly what they are and how beneficial can they be to assure a healthy diet?

Pulses, such as beans and chickpeas, are also good protein sources, although they are not high-quality proteins. They can be used as an alternative to meat, with 6 tablespoons of pulses being the equivalent to 50g of meat or fish. They are also rich in slow absorption carbohydrates and have a big amount of fiber, having, therefore, an important role in controlling your appetite, increasing your levels of HDL (good cholesterol that helps to regulate the levels of blood cholesterol) and helping to regulate your intestinal transit.

“No more myths over beans and chickpeas.”

Jorge Barata
“LONG AND HEALTHY LIFE” PROGRAM PARTICIPANT
They have a protective effect over cardiovascular diseases and some kinds of cancer.

It is, therefore, important to increase the consumption of this kind of food and adding small amounts of pulses to your vegetable soup is an excellent way to give them a place at your table.

Although they are not providers of complete proteins, when combined with other foods, you can get them: for example, by adding pasta with chickpeas or beans in the same meal.
Contrary to what you may think, “Feijoadas”, or bean stews, are healthy dishes, if you don’t use fat meats, sausages and other kinds of delicatessen. Try this healthy and tasty squid feijoada.

Nutrition Information per portion (250g)

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</tr>
<tr>
<td>Sugars</td>
<td>5.58g</td>
</tr>
<tr>
<td>Fat</td>
<td>8.55g</td>
</tr>
<tr>
<td>Saturated</td>
<td>1.38g</td>
</tr>
</tbody>
</table>
INGREDIENTS
500g OF SQUIDS, CUT INTO ROUND SLICES • 400g OF COOKED BUTTER BEANS • 150g OF POINTED CABBAGE • 1 MEDIUM CARROT • 1 MEDIUM ONION • 2 GARLIC CLOVES • 1 CLOVE • SALT AND PEPPER TO TASTE • 1 TEASPOON OF PAPRIKA • 8 TEASPOONS OF OLIVE OIL • 1 dl OF WATER

1. Make a stew with the garlic, the chopped onion, the bay leaf, the clove, the olive oil and the water.

2. Add the squids, seasoning with a little salt and pepper. Let it stew for some minutes, adding the paprika.

3. When the squids are cooked, add the beans (with some of the broth from its cooking), the chopped cabbage and the chopped carrot.

4. Let it cook and, when done, serve with rice.

ENJOY YOUR MEAL!

[Signature]
Move your body

30 MINUTE WORKOUT PLAN OF PHYSICAL EXERCISE
(REPEAT 3 TIMES THIS WEEK)

In this last week, we propose to increase your cardiac resistance, muscle strength and coordination with the following exercises. Do not forget to train for 30 minutes, 3 times a week.
WARM-UP EXERCISES

The workout always starts with some warm-up exercises. The warm-up exercises are essential to guarantee a good performance of any workout. See page 85 to guide your warm-up.

TRAINING PLAN

NOTE: If you prefer, you can do these exercises without the water bottles.

EXERCISE 1

1. Standing, grab a half-litre bottle of water in each hand;
2. Flex your right arm by taking the bottle to the shoulder and at the same time raising your left leg, bending the knee;
3. Lower your arm and leg gently;
4. Repeat the movement, now with your left arm and right leg;
5. Do the previous movements alternately, for 30 seconds;
6. Rest for 30 seconds;
7. Repeat the entire exercise (that is, do one more series of 30 seconds).
EXERCISE 2

1. Standing, grab a half-litre bottle of water in each hand;
2. Squat as far as possible, lowering your pelvis and keeping your back straight;
3. Raise your pelvis again, extending your legs until you return to the starting position;
4. Flex your arms until you reach shoulder height;
5. Extend your arms towards the ceiling;
6. Make the opposite movement until you reach the starting position, bending the elbows and getting the bottles to shoulder height, then extend your arms toward the floor;
7. Make this movement 15 times;
8. Rest for 30 seconds;
9. Repeat the entire exercise (that is, do one more series of 15 repetitions).
EXERCISE 3

1. Sit on a chair or sofa, slightly leaning forward with your back straight and put a half-litre bottle of water in each hand;
2. Support your feet on the floor with your knees bent at 90 degrees;
3. Extend your arms along your legs;
4. Pull the bottles, bending your elbows with your arms close to your body;
5. Return to starting position;
6. Repeat this movement 15 times;
7. Rest for 30 seconds;
8. Repeat the entire exercise again (that is, do another series of 15 repetitions).
EXERCISE 4

1. Sit on a chair or sofa, slightly forward and leaning, and grab a half-litre bottle of water in each hand;
2. Support your feet on the floor with your knees bent at 90 degrees;
3. Extend your arms along your legs;
4. Pull the bottles towards your body, flexing your elbows with your arms close to your body;
5. Then extend your arms back, pushing the bottles to the ceiling;
6. Return to the starting position with your elbows bent and the bottles by your body;
7. Repeat the movement of stretching the arms back by pushing the bottles to the ceiling 15 times;
8. Rest for 30 seconds;
9. Repeat the entire exercise again (that is, another series of 15 repetitions).

ATTENTION!

Make sure that your support, the chair or sofa, is safe.
EXERCISE 5

1. Standing, grab a half-litre bottle in each hand and flex your elbows with your arms close to your body;

2. Turn your body to the right side and extend your left arm at your right shoulder height;

3. Repeat the movement, now turning the body to the left side and stretching the right arm to the height of the left shoulder;

4. Do the two previous movements alternately, 15 times for each side;

5. 🕒 Rest for 30 seconds;

6. Repeat the entire exercise again (that is, do another series of 15 repetitions).
Have you finished all 5 exercises? Now do not forget to stretch.

**STRETCHING EXERCISES**

For the training to be complete, it is necessary to stretch the muscle groups that have been worked. See page 88 to guide your stretching exercises.

Physical exercise is essential for your health. Practice at least 30 minutes and at least 3 times a week.
Use your body to execute the following instructions.

- Stick your tongue out.
- Try to reach your nose and your chin with your tongue.
- Blink one eye at a time.
- Pretend you’re drinking from a glass of water.
- Wave goodbye.
- Pretend you’re hitchhiking.
- Make the victory gesture (with the index and middle fingers).
- Pretend you’re playing the piano.
- Pretend you’re brushing your hair.
- Try to move your eyebrows.
- Form a circle with your fingers.
- Pull the right ear then the left one.
Europe is a big space of more than 500 million people of which 19.2% are older adults, which means about 100 millions. Active and healthy ageing is one of the crucial matters for our future because of the dramatic demographic and epidemiological changes we are currently facing. In fact, the quality of life of the increasing elderly population as well as the overall sustainability of our health systems is related to the epidemiological pattern we will observe and the impact of intervention focused on preventing frailty and physical decline.

Supporting Active and Healthy Ageing (AHA) is the main way to facilitate the growing of an aged active population which is a resource for all the society, and may possibly generate a lower demand for health care services. In many cases, older adults in good health are also able to support their fellows and are the source of powerful actions dedicated to the common wellbeing.

According to WHO “Active ageing is the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age.”
It applies to both individuals and population groups. It is a multidimensional concept, affected by several factors like physical functionality, lifestyles, urban environment, and social inclusion to mention only some of them. The Healthy Life Year (HLY) expectancy could be considered a marker of AHA since it is the result of the interaction of psycho-physical and socio-economic factors during the individuals’ life course. HLY expectancy is mainly given by the measure of functional decline, that is the progressive impairment in performing the Activities of Daily Life such as shopping, moving, using money, taking drugs, using phone or, in the most severe cases, eating, dressing, bathing etc....

Now, while life-expectancy at birth is still increasing (about 3 years in the last decade), unfortunately, the disability-free life expectancy, or the Healthy Life Years (HLY) has not increased during the last 10 years, and this is mainly a matter of prevention.

The picture at European countries level is very different, but the gap between Life Expectancy and Healthy Life Expectancy is increasing, and this is worrisome. It seems the trend in HLY expectancy is not following the increase of LE. What are the reasons? The measure of HLY is mainly based on the onset of functional decline, which is associated to frailty.

A frail person shows an increased risk of losing his/her autonomy in performing the Activities of Daily Life (ADL), an increased incidence of health-related problems, institutionalization, hospitalization, with negative influences on the quality of life up to death.
From a public health point of view, frailty is a multidimensional issue resulting from physical and mental health, functional status, lack of social and economic resources. There are evidences that functional decline is associated to comorbidity (the sum of diseases affecting a patient) more than to a single kind of disease, and to lower psychosocial status, namely to social isolation. It is likely that we are observing a bidirectional relation between functional decline and social isolation so that prevention programs should target both.

A further crucial relation is between nutritional status and functional decline. There is growing evidence of the relation between malnutrition and frailty and initial evidence of the possibility to postpone frailty or to delay its progression implementing correct dietary advises. Interestingly, the studies on nutrition and frailty in most of the cases pointed out the role played by the overall nutrition in preventing frailty more than specific micronutrients.
The most effective approach seems to diversify the diet and to keep a sufficient proteo-caloric intake. Nutritional education at population level is a powerful tool we can implement in order to support an Active and Healthy Ageing.

Improving nutrition, counteracting social isolation and increasing physical activity seems to be the winning triad in the field of prevention of frailty and functional decline. Health promotion and education including these three items could represent the foundations of a public health approach which calls for a big investment in human resources and the development of simple tools to promote Active and Healthy Ageing.

The picture is emphasizing the key role of the determinants of health; in the 19th century in Europe the improved socio-economic condition of life of the populations was the starting point of the demographic and epidemiologic transition, and this was the most important and stable revolution in the contemporary age.

Environment sanitation and improved nutrition were the most important factors leading to this revolution at population level. Life expectancy increased from a mean of 45 years to about 80 in most of the European countries, the fertility rate dropped from more than 4 to less than 2 children per woman, and the face of our societies became older.
The demographic transition, with the increase of life expectancy, was considered by the WHO the most important success for the world population in the last two centuries; Europe was the first geographical area to experiment this success and today is still experiencing advantages and challenges more than any other population worldwide.

Today, in the era of technological development, of individualized medicine, again we deal with environmental and nutritional factors which, together with the lifestyles, seem to be the most powerful factors to determine the health of population: social environment, nutrition and physical activity are probably the crucial factors on which we can base our preventive actions to increase the healthy life years at population level.

This is strongly encouraging because we are dealing with factors that can be influenced by health promotion and education intervention. Europe can still play a leading role at world level facing the challenge of adding life, healthy life, to years.
I'm aware of the importance of food safety and hygiene, of my medication; I've learned to protect myself from the heat.

Self-evaluation

In the last 4 weeks I’ve reached the goals of this program.

I've worked out, improving my coordination, balance and strength, for at least 30 minutes, 3 times per week.

I've increased my consumption of pulse and reduced my sugar intake.

I'm aware of the importance of food safety and hygiene, of my medication; I've learned to protect myself from the heat.

Place here the sticker that certifies that you have reached this goal.

Note: You can find the stickers on page 385.
CONGRATULATIONS!

YOU ARE FIT FOR A HEALTHY LIFESTYLE THAT WILL HELP YOU TO LIVE BETTER. THIS ADVENTURE DOES NOT STOP HERE. USE THIS KNOWLEDGE THROUGHOUT YOUR LIFE AND SHARE IT WITH YOUR FRIENDS AND FAMILY.

IT WAS A PLEASURE TO BE WITH YOU AND TO HELP YOU IMPROVE YOUR HEALTH.

The Editorial team
1. Fill the certificate with your personal information.

2. Tear the certificate's page.

3. Be proud of your accomplishments and continue your journey towards a healthier life.
Certificate

We certify that

Mr./Mrs./Ms.

Has completed Saúde.Come’s 12-week “Long and Healthy Life” program successfully.

Date

Place

CERTIFIED BY:

The Editorial team
“After completing the program, I’ve become more agile! I dance more easily and don’t have such trouble climbing the stairs.”

Cândida Lopes
“LONG AND HEALTHY LIFE” PROGRAM PARTICIPANT

“Even my grandson liked the program and motivated me to complete it.”

Carlos Silva
“LONG AND HEALTHY LIFE” PROGRAM PARTICIPANT

“This program has helped me eat in a healthier way.”

Jorge Barata
“LONG AND HEALTHY LIFE” PROGRAM PARTICIPANT
Stickers

Keep record of your progress!
At the end of weeks 4, 8 and 12
of the “Long and Healthy Life” program,
you should register your progress with the stickers
in the evaluation pages.

How?
Peel them and stick them in the correct
self-evaluation.
STICKERS

SELF-EVALUATION 1

PAGE 172

SELF-EVALUATION 2

PAGE 276

SELF-EVALUATION 3

PAGE 378
Long and Healthy Life is a practical handbook that aims to promote healthy living habits and the maintenance of an active and healthy life. It can be useful to all ages, but because there is less information available, it is especially directed at adult and senior population.