

Prevention is better than cure

Prevenir es mejor que curar

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The old adage confirms the wisdom of our forebears when it came to encapsulating acquired scientific knowledge in words.

The report on *Physical inactivity and sedentary lifestyle in the Spanish adult population*,¹ issued by Fundación España Activa and published in 2019, warned that physical inactivity was responsible for 13.4% of all annual deaths in Spain, claiming more than 52,000 lives. Such a negative statistic also represents an economic burden for the country of more than €1,560 million, of which 70.5% is covered by taxes.

Faced with this situation not only in Spain but in the rest of the industrialised world, WHO launched the Global Strategy for the Prevention and Control of Noncommunicable Diseases in 2013 and its regional office for Europe prepared the Physical Activity Strategy for the WHO European Region (2016-2025) in 2015.

Clearly, both PHYSICAL EXERCISE, properly done, and EATING more smartly will help bring down these lamentable mortality figures. With the plausible goal of lowering the levels of physical inactivity in the world, the World Health Organization suggested that we walked at least 15,000 steps a day (about 8 km). This is "better than nothing", of course, but it is by no means the solution. For several decades, we have known that the benefit of exercise depends less on the volume (metres, repetitions, steps, etc.) and more on the intensity at which it is carried out.

We sometimes see people joining group sessions at the gym who are unaware of the intensity at which exercise is able to deliver them any benefit. We can see, for instance, everyone from sporty twenty-year-olds to pensioners who were "just passing by" taking part in the same indoor cycling session and working at the same intensity. A lack of commitment to and actually giving up exercise are in part the result of a failure to identify the right intensity; the one at which we can make progress and see our efforts rewarded. How often have we heard someone we know say "I'm done with the gym. I've been going for a month and haven't shed an ounce."? The Spanish State owes the population a debt for failing until now to take any kind of legislative initiative to regulate the sports professions, something

which would help reduce this lack of commitment to exercise and raise life expectancy.

Physical exercise is a miracle pill which can make us more productive and fitter, while also alleviating the emotional stress many of us suffer as a result of work, the pace of life or personal disenchantment. There is no reason why exercise should cost money. We have everything available from low-cost council facilities to groups of friends who meet up to go running or cycling in their local neighbourhoods or villages under the direction of an expert in sports science. Money is no excuse for not doing exercise. Is there a cheaper pill available in the pharmacies?

What is important is to differentiate between "physical activity" and "physical exercise". WHO defines physical activity as any bodily movement produced by skeletal muscles that requires energy expenditure². This includes activities undertaken while working, playing, carrying out household chores, travelling and engaging in recreational pursuits. Exercise, however, calls for the correct planning of objectives, embodied in tasks which respect the programmed intensity and are carried out systematically over time. For this, a professional is needed in order to determine the right workload. When somebody has a medical condition, their doctor prescribes exercise and a sports science professional defines the contents and intensity of the exercise prescribed.

Countless scientific papers and research projects confirm the need for exercise and controlling eating habits for a healthy life and, maybe more importantly, for active and healthy aging. Although from the standpoint of life expectancy at birth, Spain has the second longest-living population in the world, we grow old with a very high incidence and prevalence of comorbidities, which not only means health problems for the population but also a massive health bill with a significant pharmaceutical component. Experts encourage us to take up sports not only as a way to enhance our health but also for educational purposes. Unlike general physical exercise, sport exponentially increases the benefits described above and favours commitment. There are individual and group sports for everyone and for all ages. You just have to seek advice from your doctor and a sports science expert.

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Since the 1980s, sports professionals have speculated on the expediency of muscle strength training to improve health, well-being and quality of life. In the last decade, sports science researchers have concluded that sport, and particularly strength training, is a “wonder drug” when it comes to preventing cardiovascular diseases and physical and mental deterioration. Aware of this, primary care physicians have of late been telling their patients to “do some exercise”.

Physical exercise has a great impact on the body mass index and, therefore, on the development of overweight/obesity, one of the main causes behind the development of comorbidities over the years and, consequently, unhealthy aging. Marked differences clearly exist between individuals in terms of the effect of exercise on the mobilisation of adipose tissue, hence some people with moderate or even low workloads being less at risk of obesity than others with high workloads. This difference in response to exercise can probably be explained with reference to genetic variations between individuals, primarily in gene polymorphisms which define different characteristics associated with sporting performance and the type of exercise for which the person is best equipped, and some of these genetic variants modulate the effect of exercise on the functionality of the brain or the prevention of overweight and obesity³.

There is one rather uninspiring variable in our current understanding of sport; it is “in fashion”, and fashions are ephemeral. Innumerable software applications and social network prophets organise training programmes for us and offer advice on nutrition, without the slightest

reference to the people they are addressing, thereby creating stressful satiations for their followers due to their ineffectiveness. The world of fitness training, a market which currently moves millions of euros in Spain is no exception. Not to mention all the non-pharmaceutical products which can be purchased online without any kind of control and pose a danger in themselves, we are also faced with a legion of ill-prepared personal trainers who may be able to design a host of exercises for us, but pay little mind to the intensity each person requires. Remember that according to a number of regional laws passed in different autonomous communities, personal trainers must have a degree in physical activity and sports science before they can practise.

In conclusion, we can say that, in order to live a healthy life and age actively, it is essential to do exercise consistently and under the supervision of a specialist in the field, adapt our eating habits to our energy requirements and reduce stress to the extent that it becomes a positive factor as our lives move on.

Bibliography

1. Fundación España Activa. Termómetro del sedentarismo en España. Madrid. Centro de Investigación del deporte. Universidad Rey Juan Carlos (2019).
2. O.M.S. Estrategia Mundial para la Prevención y Control de Enfermedades No transmisibles. Disponible en <https://www.who.int/dietphysicalactivity/pa/es/>
3. López Farré A. *et al.* Los genes de la alimentación y del deporte. Madrid. Ed. Complutense (2019).