

Exercise is a scientifically-proven and valuable therapeutic and preventive tool, that everyone should take part in

El ejercicio físico, un recurso preventivo y terapéutico muy valioso y científicamente probado que deberíamos aprovechar mejor

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Ever since Jeremiah Morris published his first studies on the association between the lack of physical activity and cardiovascular mortality in the mid-twentieth century, there has been increasing scientific evidence to support this. Today, physical inactivity and a sedentary lifestyle are considered to be an independent risk factor for the appearance of many chronic non-communicable diseases (CNCDs), and efforts are therefore being directed at promoting more active life styles. However, in addition to the fact that an active life style is beneficial to people's health, science has also demonstrated that physical exercise is a prime preventive and therapeutic resource for managing a growing number of diseases.

If there were an active ingredient for the treatment of CNCDs that offered so many benefits and so few side effects as physical exercise, then it would be possible to ease much of the heavy burden of disease supported by western societies and that continuously exceeds the capacity and resources of the healthcare systems. The truth is that such a drug does not exist, however physical exercise does, and it is something that is available, accessible and cheap. Despite this, physical exercise is rarely prescribed, resulting in an incomprehensible underutilization. We do not have the space here to analyse the multiple causes of such irrational behaviour, however we will endeavour to put forward some ideas that could be useful to change it. For example, we could...

Base the approach to CNCD management on healthy lifestyle habits and not so much on the primary use of medicines. In normal clinical practice, there is generally much emphasis on the prescription of medicines and on weight control, rather than advising patients to be physically more active and to exercise regularly. Leaving advice on the consumption of tobacco and alcohol aside, patients frequently

leave the doctor's surgery with two very clear ideas: they must take the medication prescribed and they need to lose weight. For both parties alike, it is far simpler for the doctor to prescribe, and for the patient to take medication than to try and change lifestyles and habits. This course of action has a number of negative points. Firstly, it cannot be considered to be an etiological treatment, it does not "fight" the cause of the diseases but only its consequences. Secondly, there is the known lack of adherence to treatment, a fundamental reason for insisting on the use and improvement of the single-dose "polypill". The third, and far from insignificant point, is that the use of medication creates the false impression that the disease is now well under control, contributing to a greater "lack of concern" or "disregard" for the adoption of healthier habits which, in contrast, would constitute an etiological approach with important repercussions on primary, secondary and tertiary prevention. In the light of the evidence available, it would also be wrong to prioritise weight control over regular exercise. Today, we know that an overweight or moderately obese person in good physical condition faces fewer risks and maintains better functional capacity and quality of life than a slim person in poor physical condition. Likewise, many more beneficial effects are achieved by increasing the weekly energy expenditure and improving the physical condition rather than reducing excess weight with calorie restrictions.

Consider rest as one of the last resources for the treatment of diseases. There is a widely held misconception that rest is necessary in order to cure disease. The reality is that, although this may be true in some specific cases and at acute moments in time, rest is normally not necessary and, moreover, it is counterproductive. In 1965, Browse already affirmed that "The dangers of bed rest are so many, and in some cases so final,

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that we should always be striving to discard it from our therapeutic armamentarium..." and he emphasised "the absurdity of using a non-specific treatment for specific diseases without reason or proven value". In fact, with regard to the more prevalent CNCs, the lack of physical activity and a sedentary lifestyle play a decisive etiopathogenic role and, therefore, to recommend rest in these cases simply makes the problem worse.

Value exercise as a true preventive and therapeutic agent and not simply a leisure activity or one that is for athletes only. Exercise is generally considered to be a free-time activity, for pure enjoyment and leisure, and a lack of exercise is not seen as a risk. In some cases, exercise is also understood to be something for "athletes" and outside the possibilities of patients. This all results in exercise being perceived as something that is somewhat "superfluous" and it is not given its true value with regard to healthcare or recovery, relegating it to a lower priority. This way of understanding exercise, either consciously or unconsciously, is implicit in daily behaviour. Many people are unable to exercise regularly because there are always "other more important or urgent things" requiring attention, without realizing that "if health comes first" then exercise must be one of their top priorities. Something similar happens to many healthcare professionals who, probably unintentionally, act with this same preconception when prescribing treatments. It is customary to carefully inform a patient of the medicines that must be taken, with advice and help on giving up risky behaviour (smoking, alcohol, etc.) however here there is generally no mention of physical inactivity or a sedentary lifestyle. The patient is also advised to adopt specific dietary measures (eat at least 5 portions of fruit and vegetable a day, avoid saturated fats, drink two or more litres of water a day, etc.) and at the end, hopefully, it is casually mentioned that a little exercise would not be a bad thing. If healthcare professionals were really aware of the therapeutic value of exercise, then it would be prescribed as one of the principal medicines or even the most important one, because no other medicine will achieve so much improvement with so few side effects. Today, we know that exercise is the most successful, efficient and effective polypill for the prevention and treatment of CNCs, and is something that is available to everyone. If, in addition, it is possible to associate exercise with leisure and make it enjoyable, then this is the icing on the cake: we will have a therapeutic option that is pioneering, fun, socialising and a source of physical and psychological wellbeing, increasing life expectancy and improving our functional capacity.

Consider exercise and its therapeutic use as a basic necessity. Aware of the preventive and therapeutic benefits of exercise, the tax treatment given by the Spanish State and by society in general to the price of sports and physical activity services is striking. At present, admission to a sports event is subject to a reduced VAT rate, while entrance to sports facilities to do some type of physical activity is subject to the general rate of 21%, the same as tobacco and alcohol. It would be desirable and extremely reasonable to reverse this situation and to consider the practice of sports and physical activity as a basic necessity, applying a super reduced VAT rate, comparable to that of other medicines. The possibility of tax allowances on the expenditure made by citizens on sports services and activities could also be considered. After all, this is an investment in health that would entail a considerable saving in healthcare, with very positive repercussions at a personal level and for society in general.

Understand that fatigue and disability should not be a barrier to physical exercise, but the fundamental reason for exercising. The physical impairment causing disability and the loss of quality of life related to CNCs, is not directly attributable to the disease, but to disuse, too much rest, to the fact that the physical activity performed by individuals is insufficient to maintain a healthy physical condition. Insufficient aerobic capacity, decreased strength, loss of flexibility and joint mobility and change of body composition (higher percentage of fat and less muscle) cause people to increase their risk of falling ill and to feel weaker and more fatigued, with a greater feeling of "incapacity", making them even less active and increasing the deterioration of their physical condition. This closes a vicious circle that is not intrinsic to the disease, but to inactivity and a sedentary lifestyle. The reversal of this situation requires something more than medicine. However well prescribed the medication, there is still no "miraculous" medicine or active ingredient that improves the physical condition, this can only be achieved through physical activity in general and physical exercise in particular. Sufficient stimuli need to be provided in order to stress the physiological systems responsible for each component of the physical condition and to achieve its improvement or positive change, in other words it is necessary to exercise or to do training. It is impossible for the heart, the blood vessels, the remotest of muscles or any other organ or process to improve their structure or function if they are not suitably stimulated. As well as facilitating a better control of disease, increased physical fitness levels will give patients sufficient energy and vitality to perform normal daily tasks, to enjoy active leisure time, to face unforeseeable emergencies with no undue fatigue, to develop their intellectual capacity to the full and to fully experience the joy of living.

Accept that, to prescribe exercise to a person with one or more diseases is somewhat more complicated than making a generic recommendation with regard to the advisability of leading a physically active life. To advise a person to be physically more active is something as simple as telling that person to move more, either when going from one place to another, during the daily chores or in his/her leisure time. Nothing more is needed and this advice, which is increasingly more frequent during medical consultations, is of great value. However, whenever there is a pathology or specific need for improvement, to simply advise a patient that it would be a good idea to exercise, still remains a "prescription" that is extremely vague and imprecise, that is too generic. It would be equivalent to telling the patient to take medication, without specifying which medicine, or the quantity, frequency and duration. Indeed, we are talking of exercise prescription because the responses and adaptations are dose-dependent and, just like medicine, exercise can be extremely varied, it has its benefits and its risks or side effects and, therefore, its absolute or relative indications and contraindications. This therefore requires a thorough knowledge of the disease, of effort physiology, of how this can be modified by the disease itself or by the use of drugs, and knowledge of training principles and methods. It is necessary to evaluate the initial risks, indicate suitable types, "adjust the dose level" (training parameters, technical implementation, etc.), and monitor progress (appropriate responses and adaptations, appearance of injuries or other undesirable effects, etc.), and "readjust treatment". In short, this is extremely specialist knowledge that is not exhaustively addressed in the general training of healthcare professionals.

Recognise the need for more healthcare professionals trained to prescribe therapeutic exercise. As mentioned above, when prescribing exercise in the case of a pathology, it is advisable to count on specialist professionals who know how to do so by minimising the risks and optimising the benefits. Medicine in Physical Education and Sport is the only medical specialty to combine a knowledge of diseases, effort physiology and the parameters necessary for adapted training, which goes beyond attention to athletes, and whose objectives include the use of physical exercise to promote health and as a therapeutic resource. At the same time as scientific evidence, associations and administrations are calling for the need to prescribe exercise in the healthcare area, the NHS in our country is experiencing a contrary and absurd situation: it has hardly any specialists of this type on its staff and, if this were not enough, there is not even the possibility of continuing to train new specialists to address this matter, given the fact that this speciality has been eliminated from the MIR specialist training system. Reason indicates that the right way forward is to include this speciality in the portfolio of services, and the training of more specialists in order to ensure that patients receive quality healthcare. Will there be a politician capable of noticing this?

Have more spaces and professionals at the healthcare centres or at a different location, to carry out adapted training. While it is so necessary to prescribe exercise and to perform it in a clinical environment, so little consideration has been given to this that very few hospitals and healthcare centres have gyms and professionals to ensure that patients can do real adapted training. Likewise, there is practically a complete disconnection between healthcare centres and sports centres, which do have –or at least ought to have– competent professionals for the planning and supervision of adapted training for low-risk patients that do not require clinical monitoring during exercise. So that neither is it possible to send patients to these centres. Although we can assume that it is important to include and extend the use of physical training in the purely clinical environment, for those patients in an acute phase or with a high risk, it is still more important to ensure that, in all non-healthcare centres that offer leisure-sports services, there are competent

professionals to deal with the general public with pathologies and to create protocols for the referral of the patients. This format is known as “referred exercise” in other countries.

In short, these are just some of the many possible considerations and initiatives that, recognising the valuable preventive and therapeutic role of physical exercise, could be useful to include in the healthcare area. The achievement of this is no longer just a desire, but an imperious need that should be implemented without delay, given that any such delay would lead to more disease, less functional capacity and a lower quality of life for a growing number of people. By contrast, the incorporation into the clinical routine of the prescription of physical exercise, provided that this is necessary, means offering many patients the best available medicine to treat their disease, helping them to prevent many other diseases while substantially improving their quality of life and wellbeing. In a healthcare system that is increasingly under strain, there is no excuse for not using, on a mass scale, a “drug that is so cheap” and so attainable, with so many proven benefits and so few side effects: today it is difficult to find a preventive and therapeutic alternative that is more profitable than physical exercise.

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