



# Why write about physical activity in a nutrition journal?

*¿Por qué escribir sobre actividad física en una revista de nutrición?*

*Por que escrever sobre atividade física em uma revista de nutrição?*

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It can be intriguing for some people that a nutrition journal decides to publish a special edition around physical activity (PA), particularly when in the academic and professional spheres extreme opinions seem to take on more and more force. While academics become entangled in the minutiae of the discussion, patients are dispatched from the consultancies with such general advice as “cut down on fat, salt, flour, no sugar, or better if you don’t eat meat or dairy ... and get more exercise.” Faced with this scenario, the few people who become aware of the need to improve their diet and physical condition are faced with the titanic task of circumventing a volume of information available in the media, social networks, advertisements, not to mention the advice of the aunt, the friend, the friend of the friend, the trainer of the gym or the gentleman at the pharmacy.

Although knowledge of nutrition and exercise has prospered strongly in recent decades, health professionals still have the doubt of having the basic skills and

knowledge to give assertive and effective lifestyle counseling<sup>(1)</sup>. On the other hand, social networks are saturated with self-proclaimed experts in nutrition and fitness who promise almost immediate results at the expense of their clients’ health or illusions, sometimes leading them to consume products or substances that, in addition to being expensive, are not backed up by scientific evidence that supports their safety and exaggerated promises.

This edition is a reflection on our responsibility to work collaboratively for the health of our communities. Deeply academic discussions are necessary to advance the understanding of the sciences of nutrition and exercise, but on a day-to-day basis, simple and concrete strategies are needed to clearly target our populations and realities to improve eating habits and increase levels of PA, both fundamental strategies in the prevention and treatment of cardiovascular disease, diabetes, cancer, obesity, and even conditions of neurodegenerative diseases and mental health.

## THE IMPORTANCE OF PHYSICAL ACTIVITY

The benefits of physical activity on health have been rigorously studied for several decades, the founding fathers of medicine already intuited it, but the need to promote the regular practice of exercise has become more relevant to the epidemic of chronic diseases, the leading cause of mortality worldwide. In 2004 the World Health Organization (WHO) published the Global Strategy on Diet, Physical Activity and Health, urging countries to take multisectoral measures to promote adequate and timely nutrition, as well as to achieve minimum exercise recommendations for health. However, a study published by The Lancet in 2018 reveals that global levels of

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physical inactivity did not improve between 2001 and 2016<sup>(2)</sup>. According to the analysis, which included 168 countries and 1.9 million people, approximately one in four men and one in three women did not meet the minimum recommendations for PA for health (150 minutes per week of moderate physical activity or 75 minutes per week of vigorous physical activity, or an equivalent combination). Some regions, such as Latin America and the Caribbean, show a clear tendency to worsen their sedentary living standards, with women being more drastic: 43.7% of them do not comply with the minimum PA recommendations, the highest figure in the study in question. In the same year, 2018, WHO launched its Global Physical Activity Plan 2018 - 2030: More Active People for a Healthier World, in which they propose to reduce global levels of physical inactivity by 15 % by 2030, a challenging figure compared to the historical data mentioned above. However, the plan makes a strong appeal to all sectors involved to assess and implement strategies that are truly inclusive and permeate all levels of society. One of the important items of this global plan is the inclusion of physical activity in health services and the training of health personnel in the knowledge and skills necessary to recommend and promote strategies that increase opportunities for all members of society to be physically active.

The need to address the growing and worrying prevalence of physical inactivity for health reasons and the deleterious consequences of sedentary lifestyles extend beyond the competence of the health sector. Thus, the World Economic Forum has recognized the importance of promoting healthy lifestyles with strategies that involve different actors of society, public and private, optimizing the efforts and resources available in each country. It is a call for permanent collaboration between sectors and professionals at all levels, local, regional and national<sup>(3)</sup>.

Consequently, doctors, nutritionists, nurses, psychologists and physiotherapists have a fundamental role in this global effort to promote regulated physical activity, whose benefits transcend the health sphere to positively impact other human contexts (environment, transport, social cohesion, development) and are hardly comparable with other interventions in the hands of a health professional.

## **NUTRITION AND SPORT**

International scientific authorities recognize the importance of nutritional strategies in the well-being,

performance and recovery of athletes. Although there are great differences in the nutritional requirements to achieve sporting success, common objectives have been set that seek to support the adaptation to training, optimize performance during the training process and competition, as well as minimize the risk of injury and disease<sup>(4)</sup>.

There is enough scientific evidence to be able to give recommendations about the type of food, nutrients, liquids and electrolytes, their quantities, proportions, periodization and recommended schedules to reach an optimal state of health and sports performance throughout diverse training and competition scenarios. In collaboration with sports science professionals, especially accredited sports nutrition experts, athletes should develop a personalized and practical eating plan.

The greatest challenges and learnings in nutrition and sport have been evidenced in long-term sports such as marathons and ultra-marathons, road cycling, swimming or triathlon, especially for their high demands of energy, liquids and salts in training and competition<sup>(5)</sup>.

Hematological alterations such as athlete's anemia, frequent gastrointestinal and thermoregulation disorders, hydroelectrolytic imbalances such as hyponatremia, renal injury, immunosuppression and cardiovascular events are frequent problems closely related to nutritional plans which are improvised and far from scientific evidence.

## **WHAT YOU WILL FIND IN THIS ISSUE**

From the moment the invitation to collaborate in this special edition on PA, nutrition and health by our editor, Dr. Diana Cardenas, arose, we saw the opportunity to gather in a single publication the knowledge, experience and evidence around this topic that we are generating in Latin America. We believe that interpreting and adapting knowledge to our context and sharing the closest experiences, allows us to strengthen the local scientific community, generate awareness of the challenges and opportunities of our region, and encourage collaboration between different professionals and institutions. The purpose of this edition is to promote academic discussion and updating on physical activity, nutrition and health, addressing it from the basic sciences to the vision of public health, including clinical and sports sciences.

The authors invited to this issue have dedicated a large part of their professional lives to the study and promotion of physical activity in different contexts: high performance, clinical practice, medical education

and research. They are recognized regionally both for their professional merits and for their role as leaders and models of active and productive lives at the service of health and well-being.

We hope you enjoy the carefully selected contents for this issue, which seeks to continue promoting the academic growth of all professionals interested in the sciences of nutrition, sports and PA to provide increasingly better tools to our athletes, patients and families.

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