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Introduction

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INTRODUCTION

Introduction

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The management of overweight and obesity is—rightly—recognized, by the public, patients, and professionals, as being a challenging task. This is even more so in the public health crisis where the world is since the beginning of 2020. What has been called the collision of the two pandemics, the one of Sars-Cov2 and the one of obesity makes the fact that obesity can be a vital threat to individuals and populations more visible than ever. It also points to the importance of seriously addressing the issue of improving our current management strategies.

It is common sense that adopting new behaviors, primarily regarding eating and physical activity, represents a cornerstone of obesity management. However, this is everything but an easy undertaking. Physical activity, understood in its broadest sense as any bodily movement that expends some energy above resting level, plays a central role in energy balance. Its function in obesity management however goes much beyond calories burnt. For example, studies over the last two decades have shown in both men and women the value of higher physical fitness for increased longevity independent of weight status, a very positive message both for patients and for health care professionals.

Exercise is a special form of physical activity that is structured, repetitive, and planned, with the aim to enhance performance and improve health. Exercise training therefore appears as an important component of a structured and long-term approach of management of overweight and obesity. Traditional forms of exercise training include aerobic (or endurance), resistance (or strength), or combined aerobic and resistance training. High-intensity interval training (HIIT) is an example of a more recent type of exercise training that receives increasing attention in the field of overweight and obesity. However, there is still uncertainty about the respective importance of different types of exercise training on obesity-related outcomes of importance regarding management.

To answer the need of an updated evidence base on exercise training in the management of overweight and obesity in adults, a

Physical Activity Working Group was set up under the auspices of the European Association for the Study of Obesity (EASO), a federation of professional membership associations from 36 countries across Europe. EASO has at its core the mission to provide key elements of high-quality education about obesity management for all interested professionals. Experts from the EASO Physical Activity Working Group developed a set of specific research questions and systematically searched and analyzed the literature on the effects of exercise training programs on (1) weight loss, body composition changes (total body fat, lean body mass, and abdominal visceral fat) and weight maintenance, (2) cardio-metabolic health (insulin sensitivity, blood pressure, and intra-hepatic fat), (3) physical fitness (VO_2 max and muscle strength), (4) energy intake and appetite control (appetite ratings, eating behavior traits, and food reward), (5) bariatric surgery outcomes, (6) quality of life and psychological outcomes (including depression, anxiety, perceived stress, and body image), and (7) behavior change techniques to increase physical activity. This supplement presents seven systematic reviews produced through this large collaborative effort. A summary paper by the Working Group synthesizes the evidence statements directly resulting from the systematic reviews and proposes 15 recommendations regarding exercise training in the management of overweight and obesity.

The series of articles in this supplement provides new evidence detailing the many beneficial effects of exercise in persons with overweight or obesity. The findings emphasize the importance of providing specific forms of training for specific outcomes that will improve the overall health of patients. The relatively small magnitude of weight loss obtained through exercise, at least on an average basis, does not diminish in any sense the multiple benefits of exercise on other important health outcomes. This work should help develop the best approach possible integrating exercise as an important, although as yet often underutilized, component of a comprehensive approach of

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management of overweight and obesity in adults. It should therefore be of value both for professionals and for patients.

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CONFLICT OF INTEREST

The author has no conflict of interest to declare.

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