

## RECENT PUBLICATIONS

### Book reviews

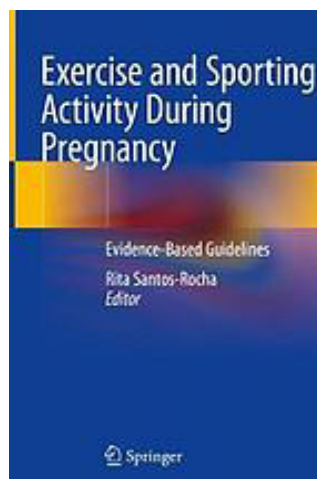
#### **Exercise and sporting activity during pregnancy.**

##### **Evidence-based guidelines**

*Editor: Rita Santos-Rocha*

Publisher: Springer, 2019

345 pages; price: €135.19 (paper) /€106.99 (eBook)



It is clearly well documented that exercise and a healthy lifestyle are crucial for both pregnant and postpartum women, and fetus and child health and development. So, in addition to improved fitness, the most evident and positive benefits for the mother are prevention of excessive weight and fat gain, and also of diabetes, hypertension and depression, while from the perspective of the fetus and child, having an appropriate weight at birth seems to represent a very relevant target and a much wanted advantage.

However, even if these benefits are well known and there is no doubt that physical activity should be a mandatory component of a healthy lifestyle, the percent of pregnant women regularly performing appropriate exercise and sport is far from being sufficient. One explanation for this unsatisfactory status could be the fact that healthcare providers do not insistently recommend and stimulate pregnant women to practice sport and exercise, whereas some fitness professionals are not sufficiently informed and prepared to design and manage adapted exercise programs in order to promote the benefits of physical activity without generating unwanted effects, such as musculoskeletal disorders, urinary incontinence, or low back pain. In other words, not all fitness instructors know “what types of exercise are the best, the safest and the most effective” in these cases.

In such circumstances, a clinical and practice oriented exhaustive book providing state of the art information to all professionals potentially involved in recommending, prescribing and supervising exercise and sport for pregnant and postpartum women is more than welcome. And the volume edited by Rita Santos-Rocha, from the Faculty of Human Kinetics within the University of Lisbon, and warmly foreworded by Dr. Michelle F. Mottola, Director of the R. Samuel McLaughlin Foundation – Exercise and Pregnancy Laboratory, Ontario, Canada, seems to be that long awaited work.

The fact that this textbook fills a gap indeed and provides the readers with evidence-based knowledge on the physiological and psychological changes occurring during pregnancy, and on the other hand with practical expertise (ideas, tools and solutions) to optimally advise and supervise the exercisers, including the most efficient points and tips for ruling out their frequently experienced fear/anxiety, is obvious just by reading its table of contents and the chapter abstracts.

So, after the authors present in the first chapter the importance of an active style and health education during different periods of pregnancy, also pointing out how important it is that health professionals promote the benefits of physical activity, the second chapter highlights the relevance of psychological, social and behavioral support, which is crucial for convincing the women to begin and/or maintain this activity. Then, the next three sections elaborate on the physiological - main adaptations and discomforts - (chapter 3), body composition (4) and biomechanical (5) changes accompanying pregnancy, as well as on their implications for physical activity.

Besides the above mentioned changes and adaptations, pregnancy can also generate significant impairments and disorders of the musculoskeletal system, which are accompanied by pain and embarrassing dysfunctions, as is the case of the relatively frequent urinary incontinence. This is why the 6th chapter comes not only with comprehensive up-to-date evidence-based information about these aspects, known as having negative effects on daily activities, but also with specific recommendations for their treatment and recovery of the functional capacity. The utility and the way in which exercise and physical activity help prevent and cure these musculoskeletal conditions and disorders will be presented in the 10th chapter.

The purpose of the three authors (coming from Poland, Portugal and Spain) of the 7<sup>th</sup> chapter was “to review the information provided in the current guidelines for exercise during pregnancy in different countries”. The resulting

overview takes into consideration both the specific pre-pregnancy habits of the subjects – inactive, active women, or competitive female athletes - and the different targeted exercise classes, whether based on aerobic, resistance, or stretching exercises. Next, chapter 8 teaches us how to correctly perform medical screening and exercise testing. The accuracy of medical screening is crucial to make sure the pregnant woman will have no risk once engaged in exercise, while the correctness of exercise testing is vital because its results help us to choose the most appropriate types and modes of exercises, their duration, frequency and intensity; these conditions are required to design effective, safe, individualized exercise programs. Even more practical than the above described chapter, the next chapter presents the ideal structure of an exercise session for pregnant women, which apart from compulsory

warm-up and cool-down must contain the following four groups of exercises: aerobic, resistance plus postural plus neuromotor, flexibility, and pelvic floor muscle exercises. This chapter ends with no less than 11 examples of practical exercise programs.

Finally, the 11<sup>th</sup> chapter offers detailed nutritional recommendations, being known that energy and macronutrient intake depend on the volume and intensity of exercise, on whether the exerciser is an adult or an adolescent woman, and of course, on the moment of the day when the exercise program is performed. This means that exercisers must also be advised and taught how to properly distribute foods before, during and after exercise.

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