

Special Interest Group in Muscle Strengthening

as part of the Hellenic Society of Biochemistry and Physiology of Exercise

1. Description of the object of Muscle Strengthening

The meaning of Muscle Strengthening includes all these actions that aim in the increase of skeletal muscles strength through physical exercise. Specifically, the object of the Muscle Strengthening deals with the methods of assessment of muscle strength, as well as with the methods of increase of muscle mass and the forms of expression of muscle strength (maximum strength, power, and local muscle endurance). The scientific research in Muscle Strengthening aims, among others, in the investigation of the muscular and neuronal adaptations that lead in the increase of muscle strength and in the study of the effectiveness of the application of muscle strengthening programs in various populations.

Regarding the practical application, the aim of the Muscle Strengthening is dual: from one side the increase in muscle mass and in neuromuscular activation that lead in the improvement of muscle output in exercising persons, and from the other side, the improvement of the quality of life through the improvement, in general, of the indices of physical health, such as the body composition, and specifically, myoskeletal function itself.

2. Need for the creation of the Special Interest Group

There is strong interest from both the scientific community and the society for the application of effective exercising programs that target muscle strength, internationally and in our country. This interest emanates from the impressive results that this kind of exercise has in healthy exercising persons that aim at the improvement of their performance, as well as in persons with decreased initial capability (i.e., elderly) that aim at the improvement of their quality of life. Especially in this second category of persons, the Muscle Strengthening exercise of a few only months can lead to significant increase of the initial muscle strength and power through neuromuscular adaptations, with respective decrease in falls, and decrease in insulin resistance, whereas it is connected with reduced chance of development of Alzheimer disease, as well.

A significant part of the members of the Society is working scientifically, directly or indirectly, with Muscle Strengthening. Characteristically, in the annual conference of 2013, twelve out of the 46 abstracts contained scientific data related to Muscle Strengthening, whereas the one out of the three courses that took place had as topic the measurement and evaluation of muscle strength and power. Moreover, the first two abstracts that were awarded in the conference, were related, directly or indirectly, with topics of Muscle Strengthening.

The past 20 years there is an outburst in the creation and operation of gyms related to Muscle Strengthening. This shows the need that exists in the society for exercise targeted to the improvement of muscle strength. However, constitutes an uncomfortable reality the fact that many of these sports centers, are staffed with moderate skilled professionals, who often apply ineffective and anachronistically programs of Muscle Strengthening. The function of the Special Interest Group in Muscle Strengthening in the framework of the Society can contribute, among others, to the spread of modern scientific data and of the benefits of Muscle Strengthening in the wider community, as well as to the further training of the professionals in this area.

3. Aims of the Special Interest Group

In accordance with the Society's constitution, the aims of the Special Interest Group in Muscle Strengthening are described as follows:

1. To create conditions of opinions changing and collaboration among Greek scientists in topics of Muscle Strengthening.
2. To formulate scientific positions and guidelines in topics related to the application of resistance exercise programs.
3. To contribute in the training of young scientists to effective methods of Muscle Strengthening exercise, as well as to scientific techniques related to resistance exercise and to the adaptations caused with this. Part of these actions can be part of the Society's annual conference or in satellite symposiums.

The creation of a group of scientists with special interest in Muscle Strengthening will contribute in the development of the topic in our country, through the fruitful exchange of views and opinions and the further attracting of young scientists.

Founding members of the group

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