EFFECTS OF THE PRACTICE OF MUSCLE STRETCHING

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Abstract

Stretching is one of the warming methods used by most athletes, because you think would produce, on the one hand, positive effects on athletic performance and, on the other hand, a decrease in the risk of injury. However, despite this wide spread and its enormous application in most sports, stretching is now the subject of numerous controversies of interpretation that are questioning both the effectiveness, the actual usefulness. In fact, the results of scientific studies and sports practice has shown that static stretching would have a negative effect on performance and no reduction in the risk of trauma. Used, instead, for the training of joint mobility can produce significant results as regards the increase in the amplitude articular.

Keywords: warm-up, performance, injury prevention, joint mobility

Introduction

This article discusses some of the more possible intervention of stretching, that is the influence on performance, injury prevention and muscle range of motion. In many sports and many sports Stretching is used for the training of joint mobility and heating purposes. With regard to the training of joint mobility, both in the practical experience that the results of scientific research confirms the effectiveness of stretching, while as a method of warming is definitely questioned its effectiveness. In school, the stretching issue is not investigated, but it is useful to deep (Di Tore et al. 2012, Ambretti et al. 2012, Carломagno et al. 2010). Stretching can also be done in class and is designed to counteract the effects of a sedentary lifestyle and a location, often incorrectly, in the classroom and draws attention to the importance of physical activity to promote the welfare of all students, including disabilities (down syndrome, autism, ecc...), (Perrotta F. e Altavilla G., 2013).

Discussion

Are increasing rumors that do not confirm an increase athletic performance through the use of stretching, or even They note a negative influence especially in sports where the outcome is very dependent on the strength fast. In fact, in many scientific conclusion you come to agree that stretching as a method of warming, carries a negative effect on the performance capacity of athletes. Excessive stress in elongation of certain muscle groups at the expense of others, could be a factor of disturbance of coordination both between synergistic muscle groups, which between agonists and antagonists. The elongation is, from a biomechanical point of view, similar to a contraction of eccentric type, the intensity of which can reach levels of type ceiling. For this reason, by preceding the performance a particularly intense session of stretching, you run the risk of producing damage to the muscular structure and to have a muscle strain, in both cases, the performance would result obviously perturbed. In the course of an elongation of a certain intensity and duration, the tendon through a phase of reorganization of its collagen fibers, this phenomenon goes under the name of "creeping" and leads to a decrease of the ability of the tendon, and then accordingly a decrease the ability to jump in response to a previous intense session of stretching. Another aspect to consider is that during the eccentric contraction the muscle is subjected to a phenomenon of "overstretching" which, as such, can lead to the appearance of lesions on the tendon of insertion of the muscle-tendon junction, or at the level a muscular area made more fragile by a deficiency of blood supply. The lack of correlation between the ability to stretch the muscle and decrease in muscle trauma, could be explained by the fact that stretching causes a kind of analgesic effect, which goes under the name of "stretch - tolerance", in respect of same elongation. The practice of stretching would lead to a decrease of pain sensation induced by stretching, allowing in this case the athlete to endure muscle stretching of greater magnitude, a situation which could, however, also increase the risk of accidents in the muscle. The majority of athletes performs stretching exercises during the warming phase in order to preserve its physical from any trauma, but they can easily incur in sprains and muscle strains if the muscle is not stretched sufficiently.

Table 1. Summary of the results of some research (Turbanski, 2003)

<table>
<thead>
<tr>
<th>The objective of the research</th>
<th>Results</th>
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<tr>
<td>Comparison of the effect of different methods of warming on the performance of vertical jump height</td>
<td>Significant worsening of performance after stretching</td>
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<td>Effects on the use reactive force in the warming of different methods of stretching</td>
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<td>Reduction of the performances from 3.1 to 2.6 %</td>
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The effect of injury prevention by stretching is increasingly questioned, in fact, so far have not been able to show that through the practice of stretching will prevent or reduce the trauma and that neither affect the onset of muscle soreness.
These statements, of course, apply only to static stretching. One of the most comprehensive scientific references about the impact of pre-exercise stretching and injury risk has been completed by Thacker et al. (2004). Which I explain how the practice of pre-exercise stretching may not prevent injury, suggesting that there is an alteration of the connective tissue and in some cases, this alteration can lead to increased joint instability. Finally, the warming itself proves to improve the flexibility, as the increase of body temperature caused by this practice increases the elasticity of muscle and muscle flexibility also of 20%. Before training or the race can be performed static stretching exercises but followed by sprint or jump to the maximum intensity or use dynamic stretching instead of the static one. In addition, dynamic stretching, would have a higher regard for the improvement of joint mobility , so the dynamic stretching may be positive from this point of view. In the practice of dynamic stretching, static otherwise by lengthening, the position is not maintained for a few seconds, but the exercises are performed with repeated movements springing, trying to increase the range of motion. It's important to remember that before a training session or a race should be dynamically stretch all muscle groups essential and that under no circumstances should the elongation causing pain.

Conclusions

Stretching continues to have considerable importance in the training of joint mobility , therefore should be used in this context , while the activity of heating you should use dynamic stretches . Stretching should be recommended after every race in order to maintain joint mobility general , because this is the essential prerequisite for many sports and is therefore an aspect not to be overlooked . For sporty performance it should be noted that it is essential to perform movements at maximum speed with a range of optimal movement of the joints . Finally, in addition to the general warming , we must consider also that special one, which should be done in such a way that the exercises are , as far as possible , similar to those of the competition.

References


UČINCI VJEŽBANJA STRETCHINGA MUSKULATURE

Sažetak

Istezanje je jedan od načina zagrijavanja (pripreme) koju koristi većina sportaša, jer se smatra da će proizvesti, s jedne strane, pozitivan utjecaj na sportsku izvedbu i, s druge strane, smanjenje rizika od povrede. Međutim, unatoč tom jako raširenom mišljenju i svojom ogromnom primjenom u većini sportova, istezanje je sada niz od brojnih kontroverzi kao i tumačenja te se izvodi učinkovito i stvarna korisnost. Naime, rezultati znanstvenih istraživanja i sportske praksi pokazuju da staticko istezanje ima negativan utjecaj na rad i ne smanjuje rizik od povrede. Koristi se, umjesto toga, za očuvanje pokretljivosti zglobova i tu može proizvesti značajne rezultate s obzirom na povećanje amplitude gibanja zglobova.

Ključne riječi: zagrijavanje, izvedba, prevencija povreda, pokretljivost zglobova

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