ACADEMIC PAPERS

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The Strategic Approach to Training Intensity: Going to Failure

In the pursuit of muscle growth and strength gains, one often encounters the debate over how close to failure each set should be taken. Going to failure, or the point at which it becomes impossible to perform another repetition with good form, has been a topic of discussion and experimentation among fitness enthusiasts and experts alike. In this article, we delve into the concept of going to failure, exploring its benefits, potential drawbacks, and the strategic ways it can be incorporated into a training routine.

UNDERSTANDING GOING TO FAILURE: A BRIEF OVERVIEW

Going to failure represents the peak of intensity during resistance training. It is the point where a muscle or group of muscles is fully fatigued, and completing another repetition becomes challenging or impossible. This level of exertion is often associated with increased metabolic stress, a key factor in muscle hypertrophy, and the activation of muscle fibers that might not be fully recruited during submaximal efforts.

THE BENEFITS OF GOING TO FAILURE:

Maximal Muscle Recruitment:

- Going to failure ensures that a maximal number of muscle fibers are recruited and engaged during a set. This can be particularly beneficial for targeting specific muscles and promoting comprehensive muscle development.

Metabolic Stress and Hypertrophy:

- Training to failure is linked to increased metabolic stress, a potent stimulus for muscle hypertrophy. The buildup of metabolic by-products in the muscle triggers an adaptive response, encouraging muscle growth over time.

Enhanced Mental Toughness:

- Pushing oneself to failure requires mental fortitude. Incorporating failure training can contribute to the development of mental toughness and resilience, valuable attributes in achieving fitness goals.

POTENTIAL DRAWBACKS AND CONSIDERATIONS:

Risk of Overtraining:

- Constantly training to failure may increase the risk of overtraining, leading to fatigue, diminished performance, and an elevated risk of injury. It's crucial to balance intensity with adequate recovery.

Form Breakdown:

- As fatigue sets in, the risk of compromising form increases. Maintaining proper form is essential for preventing injuries and ensuring the effectiveness of the exercise.

STRATEGIC IMPLEMENTATION:

Periodization:

- Periodizing training intensity can be a strategic way to incorporate failure training. Cycling through phases where some sets are taken to failure while others are stopped short allows for variation and recovery.

Selective Use:

- Rather than going to failure in every set, selectively implement failure training. Reserve it for the last set of an exercise or focus on specific muscle groups during a workout.

Listening to Your Body:

- Individual response to failure training varies. Pay attention to how your body responds and adjust the frequency and intensity of failure training based on your recovery and performance.

CONCLUSION:

Going to failure is a potent tool in the arsenal of training methodologies, but like any tool, it requires thoughtful and strategic application. Incorporating failure training selectively, listening to your body, and understanding the potential risks can help harness its benefits without falling victim to its drawbacks. Whether you're seeking muscle hypertrophy, strength gains, or mental resilience, going to failure can be a valuable component of a well-rounded and progressive training program. Remember, the key is not just going to failure but knowing when and how to do it effectively to maximize your fitness journey.

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Influence of programmed fitness exercise on scoliotic bad posture among pre-school children

ABSTRACT

This research included the sample of 79 pre-school boys of 6 and 7 years old, with 40 of them in experimental group and 39 in control group. It was examined the present state of postural status, as well as their relation after applied 6 (six) months of fitness treatment in the experimental group of participants in order to research effect of the same. The experimental group was involved in 2 (two) classes per week, in addition to regular programme activities within children sport school (3 (three) times per week), and within 48 of additional, 6 (six) months long, training lessons of exercising in sport (fitness) clubs. In order to evaluate characteristics of postural status in and frontal plane, the following variables have been used by application of the "Spinal Mouse" (3D analysis tool for the spine status evaluation): the grade of the curvature in thoracic spine, grade of the curvature in the lumbar spine and inclination of the spine. Although small to moderate effects were obtained by the examinations of double mixed ANOVA, the results show the experimental group achievementsas significantly higher advancement then with control group. As well, with individual eta coefficient ($p\eta$ 2) findings in comparison with each group measurements it is visible that value of obtained effects is different between groups to the benefit of the experimental group. This research results should serve in function of the most informative indicators that will enrich technological process of managing, monitoring, control improving, and optimization of programmed exercising with the given population. Permanent implementation of the proposed programme could contribute improvement of the final postural status with children and prevent development of inferior posture and later deformity.

Find the whole article on this link:
https://drive.google.com/file/d/19hb7etfB4ckNz95YNEB-SrSMROhgoPNm/view?usp=drive_link

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By Prof. Mauricio de Arruda

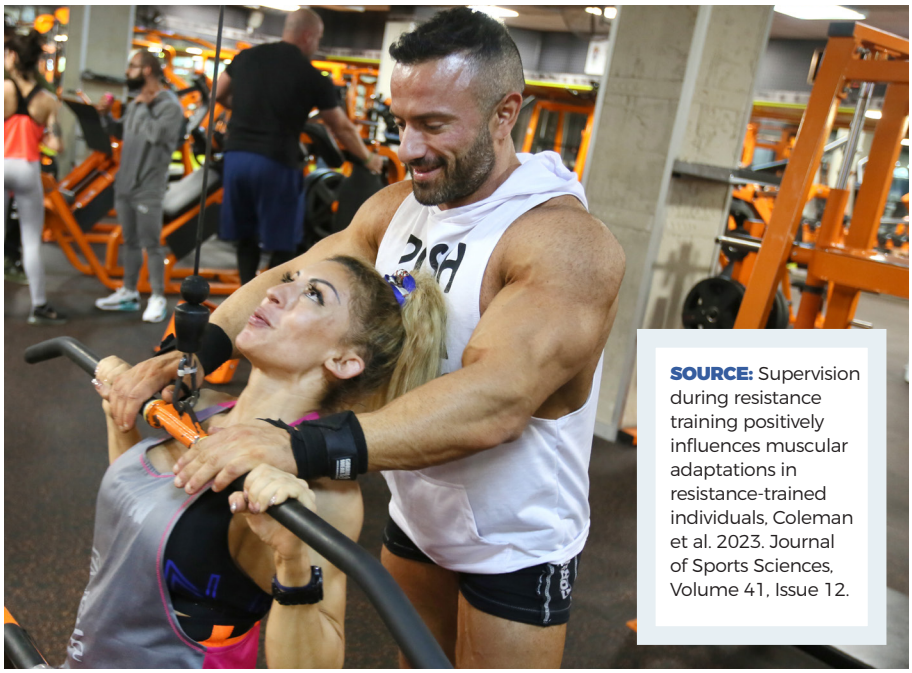
Recently published scientific article shows that a training program supervised by a personal trainer produces superior results

A recent study by Coleman et al, published on October 2023 at the Journal of Sports Sciences, compared the effects of 8 weeks of supervised versus unsupervised weight training on measures of strength and hypertrophy in 36 trained young people.

The results showed that the supervised group had greater adherence to exercises, greater triceps and thigh hypertrophy, in addition to greater strength gains in squats, bench presses and leg extensions.

It suggests that supervised monitoring can directly and positively influence training results.

In the conclusions of the article the authors say: "In conclusion, our findings suggest that supervised RT promotes greater muscular adaptations and enhances exercise adherence in young,



SOURCE: Supervision during resistance training positively influences muscular adaptations in resistance-trained individuals, Coleman et al. 2023. Journal of Sports Sciences, Volume 41, Issue 12.