

BODY FAT IN PREPUBERTAL BOYS: DIFFERENT TRAINING PROGRAM'S DESIGNS

7º INTERNATIONAL SYMPOSIUM ON STRENGTH & CONDITIONING

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INTRODUÇÃO	AMOSTRA	METODOLOGIA																					
<p>Research studies agreed that strength and aerobic training either combined or performed separately promote bone density, aerobic capacity, and explosive strength improvements in childhood (Alves et al., 2016; Santos et al., 2012). Nevertheless, there still is uncertainty regarding to the best training program to be implemented that efficiently improve body fat percentage. The current study aimed to compare different training program's designs on body fat percentage in prepubertal boys.</p>	<p>One hundred twenty-three prepubertal boys (10.9 ± 0.6 years old) with no training experience participated in the study.</p>	<p>It was intended to compare five experimental groups to perform different training protocols for 8 weeks on body fat percentage (BF%): strength-only (SG), aerobic-only (AG), inter-session concurrent aerobic-strength training (ASG_2), intra-session concurrent aerobic-strength training (ASG), intra-session concurrent strength-aerobic training (SAG), and a control group, no training (CG). SG, AG, ASG and SAG groups performed single sessions two days per week. ASG_2 group performed on different days each week (two and two days per week). The strength training program comprised plyometric exercises (medicine ball throws and jumps) and sprint running. The aerobic training program comprised the 20m shuttle run exercise.</p>																					
RESULTADOS		CONCLUSÃO																					
<p>Body fat percentage showed significant decrements from pre- to the post-training in the ASG_2 (17.6%, p=0.004), SG (16.1%, p=0.000), and SAG (17.7%, p=0.000) groups. There was an impairment in the ASG (4.2%, p=0.492) and control group CG (16.8%, p=0.000). No differences were presented in the AG (p=0.053).</p>	<table border="1"> <thead> <tr> <th></th> <th>BF% Pre-Training</th> <th>BF% Post-Training</th> </tr> </thead> <tbody> <tr> <td>SG</td> <td>17.2±10.0</td> <td>15.4±8.8</td> </tr> <tr> <td>AG</td> <td>17.1±7.6</td> <td>20.1±8.5</td> </tr> <tr> <td>ASG 2</td> <td>19.9±6.5</td> <td>16.4±7.5</td> </tr> <tr> <td>ASG</td> <td>20.7±9.1</td> <td>17.9±8.5</td> </tr> <tr> <td>SAG</td> <td>20.6±8.5</td> <td>16.9±8.0</td> </tr> <tr> <td>CG</td> <td>20.2±8.4</td> <td>23.9±8.3</td> </tr> </tbody> </table>		BF% Pre-Training	BF% Post-Training	SG	17.2±10.0	15.4±8.8	AG	17.1±7.6	20.1±8.5	ASG 2	19.9±6.5	16.4±7.5	ASG	20.7±9.1	17.9±8.5	SAG	20.6±8.5	16.9±8.0	CG	20.2±8.4	23.9±8.3	<p>The order of intra-session concurrent training influenced body fat percentage changes. Moreover, performing intra-session concurrent strength and aerobic training is more useful than strength or aerobic training only and concurrent training in different sessions to decrease body fat percentage in prepubertal boys. These results have a meaningful interest to optimized school-based fat loss exercise programs in childhood.</p>
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REFERÊNCIAS BIBLIOGRÁFICAS

Alves, A. R., Marta, C. C., Neiva, H. P., Izquierdo, M., & Marques, M. C. (2016). Concurrent training in prepubescent children: the effects of eight weeks of strength and aerobic training on explosive strength and VO₂max. *Journal of Strength & Conditioning Research*, 30(7), 2019-2032.

Santos, A., Marinho, D.A., Costa, A. M., Izquierdo, M., & Marques, M. C.. (2012). The effects of concurrent resistance and endurance training follow a detraining period in elementary school students. *Journal of Strength & Conditioning Research*, 26(6), 1708-1716.

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