

ABSTRACT

The Effect of Natural Supplements in Weight Training on Hypertrophy". Experimental Research of the Members of One Gym Fitness Center Padang

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The problem of this research was the lack of knowledge of members of fitness about nutrition. As the result, the use of supplements to support the occurrence of muscle hypertrophy was not optimal. Natural supplements in this study were soy milk, egg whites and tofu. The purpose of this study was to determine the effect of natural supplementation in weight training on hypertrophy.

The design of this research was a quasi-experimental research with the population of the research was all of the active members One Gym Fitness Center Padang. The samples were taken by using purposive sampling technique who registered in less than one month which around 26 people. Tape measure and skinfold were used as the instrument of this research. The formula $MTC - (3.14 \times TSF)$ in which the MTC is a muscle rim and TSF is the thickness of muscle fat is used to calculate the circumference of the muscle. The data were analyzed by using t-test at significance level of $\alpha = 0.05$.

The results of the research shows that hypertrophy of muscle arm for experimental group is observed (25.91) > ttable (1.78) with average pre-test is 252.67 and post-test is 274.58, for thigh muscle hypertrophy observed (13.13) > ttable (1.78) with the average score of pre-test is 459.49 and post-test is 478.70. Hypertrophy of arm muscle of control group is observed (5.34) > ttable (1.78) with the average score of pre-test is 255.61 and post-test is 262.48, thigh muscle hypertrophy observed (6.85) > ttable (1.78) with the average score of pre-test is 458.32 and post-test is 468.78. Hypertrophy of arm muscle in experimental and control groups is observed (1.81) > ttable (1.78) with mean score of post-test 274.58 and 262.48, while thigh muscle hypertrophy in experimental and control groups is observed (2.44) > ttable (1.78) with the average score of post-test are 478.70 and 468.78. Based on the results, it can be concluded that natural supplements in weight training is better than without natural supplements in weight training of muscle hypertrophy.

ABSTRAK

Efek Pemberian Suplemen Alami dalam Latihan Beban terhadap Peningkatan Massa Otot (Hipertrofi)". Studi Eksperimen pada *Members One Gym Fitness Center Padang*

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Masalah dalam penelitian ini adalah kurangnya pengetahuan member *fitness* tentang gizi, sehingga pemakaian suplemen untuk menunjang terjadinya hipertrofi otot tidak optimal. Suplemen alami dalam penelitian ini adalah susu kedelai, putih telur dan tahu. Adapun tujuan penelitian ini adalah untuk mengetahui efek pemberian suplemen alami dalam latihan beban terhadap peningkatan massa otot (hipertrofi) lengan dan paha.

Jenis penelitian ini adalah eksperimen semu dengan populasi penelitian seluruh *members* yang aktif di *One Gym Fitness Center Padang*. Teknik penarikan sampel menggunakan *purposive sampling* yaitu sampel terdaftar kurang dari satu bulan yang berjumlah 26 orang. Instrument yang digunakan adalah pita meteran dan *skinfold*. Untuk menghitung lingkaran otot digunakan rumus $MTC - (3,14 \times TSF)$ yang mana MTC merupakan lingkaran otot dan TSF adalah ketebalan lemak otot. Data dianalisis dengan uji-t pada taraf signifikansi $\alpha = 0,05$.

Hasil penelitian menunjukkan hipertrofi otot lengan kelompok perlakuan thitung 25,91 > ttabel 1,78 dengan rata-rata *pre-test* 252,67 dan *post-test* 274,58, hipertrofi otot paha thitung 13,13 > ttabel 1,78 dengan rata-rata *pre-test* 459,49 dan *post-test* 478,70. Hipertrofi otot lengan kelompok kontrol thitung 5,34 > ttabel 1,78 dengan rata-rata *pre-test* 255,61 dan *post-test* 262,48, hipertrofi otot paha thitung 6,85 > ttabel 1,78 dengan rata-rata *pre-test* 458,32 dan *post-test* 468,78. Hipertrofi otot lengan kelompok perlakuan dan kelompok kontrol thitung 1,81 > ttabel 1,78 dengan rata-rata *post-test* 274,58 dan 262,48, sedangkan hipertrofi otot paha kelompok perlakuan dan kelompok kontrol thitung 2,44 > ttabel 1,78 dengan rata-rata *post-test* 478,70 dan 468,78. Dari hasil ini dapat disimpulkan bahwa efek pemberian suplemen alami lebih baik daripada tanpa pemberian suplemen dalam latihan beban terhadap peningkatan hipertrofi otot lengan dan paha.