

Effect of a Conditioning Program on Subcutaneous Fat and LBM% in Males Aged 18-24 Years

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ABSTRACT This study examined the effect of a three-month conditioning program-consisting of exercises targeted to improve flexibility, strength, and cardiorespiratory endurance, on Subcutaneous Fat and Lean Body Mass percent (LBM %) in fifty (N=50) physically active males aged 18-24 years. Bioelectrical Impedance Analysis was used for total body composition assessment and subcutaneous fat distribution was measured with the help of skinfold thickness from selected body sites (Biceps, Triceps, Subscapular, Suprailiac, and Calf). On an average most deposition of fat was noticed in the Subscapular site followed by Calf, Triceps, Suprailiac and Biceps regions in that order before the start of a conditioning program. Conditioning program caused a significant reduction in the subcutaneous fat deposition at all sites after the completion of first mesocycle of 45 days as well as after the second mesocycle (next 45 days of conditioning). However the conditioning program of 90 days failed to change the distribution pattern of subcutaneous fat in the observed sites. On the body composition front, the mean values of total body fat percent demonstrated a decrease after the conditioning program (before 19.83 ± 5.50 and after 17.7 ± 5.36) but this decrease was not statistical significant ($P < 0.05$). Similarly, the mean values of total body LBM% demonstrated increase after a conditioning program (before 80.16 ± 5.50 and after 82.3 ± 5.44) but again this increase was also not statistical significant. These findings indicate that a conditioning program on the one hand statistically significantly lowers skinfold thickness by mobilizing and using the stored fat (subcutaneous) from various sites and on the other hand although there was a difference in the mean values of total body Fat Percent and total LBM percent after a conditioning but that difference was not statistical significant.