

Estimate of body fat percentage in male volleyball players: Assessment based on skinfolds

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The purpose of the study was to develop regression equations to predict body fat percentage (BF%) in young male volleyball players by using the Dual-energy X-ray absorptiometry (DXA) method as a reference. The subjects consisted of 29 volleyball players (16.0 to 20.9 yrs of age) from a professional first division team in the Brazilian volleyball league. The subjects' years of experience, weight, height, sitting height, and 7 skinfolds (triceps, biceps, subscapular, iliac crest, abdominal, front thigh, and medial calf) were determined. Three equations were created to predict BF%: (a) Equation 1, ($R^2 = 0.76$, $SEE = 1.82$); (b) Equation 2, ($R^2 = 0.79$, $SEE = 1.85$); and (c) Equation 3, ($R^2 = 0.80$, $SEE = 1.81$). All three equations developed may be used to predict BF% in young volleyball players. These equations may also be used as a reliable and valid alternative technique for research.

Absorptiometry

Anthropometry

Body fat percentage

Dual-energy X-Ray

Volleyball players

adult

anthropometry

biceps brachii muscle

body fat

calf (mammal)

clinical article

dual energy X ray absorptiometry

height

human

iliac crest

male

nonhuman

skinfold

statistical model

thigh

triceps brachii muscle

volleyball

young adult