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Team-sport training vs. fitness training in a prevention centre

Møller TK, Nielsen T-T, Krstrup P and Randers MB

This study examined the effects of 12 weeks of team-sport training for sedentary men with lifestyle diseases in a pragmatic community health centre (CHC) set-up compared with fitness training.

**Methods:** Fifty-one men were included in the fitness group (FiG) and 48 men in the team-sport group (TsG). Both groups trained 2 times 60-90 min per week for 12-16 weeks. In FiG and TsG, average heart rate (HR) during training was 73.2% and 74.5%, and time spent with HR above 90%HR$_{max}$ was 5.8±8.7% and 10.3±14.6% of total training time for FiG and TsG, respectively. In FiG and TsG, the percentage of men who spent >10% of total training time with HR>90%HR$_{max}$ was 20% and 41%, respectively. **Results:** In FiG, body weight was lowered by 1.6%, total fat mass lowered by 3.5% and fat percentage by 2.3% (P<0.01), while sit-to-stand performance increased by 31% (P<0.001). Moreover, performance in the 6-min walking test (6MWT) increased by 10% (P<0.001). In TsG, total body mass was lowered by 1.4% and total fat mass by 2.2% (P<0.01), while 6MWT performance improved by 6% (P<0.05). Between-group differences were observed for systolic blood pressure (P=0.041) and mean arterial blood pressure (P=0.050) in favour of TsG and for sit-to-stand (P=0.031) in favour of FiG.

**Conclusion:** Both team-sport training and fitness training have positive physiological effects on men with, or at risk of developing, lifestyle diseases. Training organised as small-sided team sports elicits high heart rates and has beneficial effects on cardiovascular risk factors, while fitness training mainly has beneficial effects for day-to-day activities. Team-sport training is a worthy alternative to the commonly used fitness training.