Journal of Aerobics & Fitness: OpenAccess

Arazi, J Aerobics Fitness 2016, 1:2

Commentary Open Access

Is Concurrent Training Good for Health and Fitness?

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Rec date: May 31, 2016; **Acc date:** June 29, 2016; **Pub date:** July 4, 2016

Citation: Arazi H (2016) Is Concurrent Training Good for Health and Fitness?. J Aerobics Fitness 1: 104.

Commentary

In the past decades, American college of sports medicine (ACSM) published annually position stands regard to how to train for healthy life. It repeatedly demonstrated emphasis on aerobic training in 3-4 days or more days for Guarantied and safe method of health promotion in all of the individuals. Of course, aerobic training is a priority among a variety of training because of its impact on cardio-respiratory fitness and body composition. These are very important for maintaining physical health and quality of life. However, its benefits shouldn't overestimate. Since human body is composed of many systems and these systems cooperate together for normal homeostasis and best performance encountering different environmental factors, other systems especially muscular system must be considered. Purely emphasis on aerobic training will not along with completely achievements. Skeletal muscles performance leads to locomotion, movement and vital tasks in life. Therefore, it seems that only aerobic or endurance training isn't enough for all benefits. Based this, many studies reported that a method of training defined as concurrent or combined training can induce cardio-respiratory and muscular adaptations. Simultaneously, this method consequently will bring more benefits with effect on aerobic power, muscle performance (endurance and strength and hypertrophy) and body composition [1]. Of them, endurance and strength are principal components of health related fitness. Endurance is divided to cardio-respiratory endurance and muscular endurance. First above-mentioned endurance basically is enhanced by aerobic training as a concurrent one while, latter is promoted often by resistance training as another component of concurrent training. Also, strength enhancement is along with resistance or strength training. Therefore, combination of these type of training induces multidimensional benefits toward health and fitness at minimal time compared to separate training as only resistance or aerobic. On the other hand, it has been shown that concurrent type training improve body composition (increasing muscle mass (hypertrophy) and decreasing body fat) via ascending resting metabolic rate and energy expenditure for training. Since, each aerobic or resistance training aimed to increase aerobic power likely along with muscle atrophy in favor of protein breakdown and developing muscle mass via increasing protein synthesis without significant changes in aerobic power respectively. Based these, it seems that concurrent training has more efficiency and great health and fitness achievements other than endurance or resistance ones. In the recent years, ACSM with worldwide surveys and observed outcomes of concurrent training in scope of people health, suggest this training other than only aerobic training [2]. Again, it can be considered that concurrent training effect on multi systems and induce more adaptations. Therefore, in additional to cardiovascular fitness, musculoskeletal fitness enhances and prevents stature mal-alignments and abnormality. Concurrent training usually includes coincide endurance and resistance (strength) training. Each of these has specific response and adaptations. But, the important issue is to synchronize two type of training and likely interference of their effects. Some studies reported negative effect of resistance on endurance and reversely endurance on resistance. But, many researchers observed no significant interference strength and endurance together. Also, sequence or order of these training is important. Often, if cardiorespiratory fitness is more important goal than muscular ones, it is suggested that endurance or aerobic training be of first program in all training. Reversely, if muscular fitness is priority, resistance training is of first ones'. Toward comparing concurrent exercise protocols included distinct endurance – resistance (DER) and parallel endurance – resistance (PER) for 12 weeks, findings showed that both DER and PER protocols were similarly effective in positive improvement of aerobic power, muscular endurance and body composition [1]. In summary, based on previous studies and recent recommendations of ACSM, concurrent training is good method of physical training for promotion of people fitness and health.

References

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