

EFFECT OF TRAINING METHOD ON THE SPEED AND STRENGTH OF SPORTS PLAYERS

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ABSTRACT

The study based on experimental method of research, the investigator tried to find out the effect of training method on the speed and strength of the sports players of Hyderabad Karnataka region. The study objectives – to find out the effect of training method on the speed of the sports players, second objective, to find out the effect of training method on strength of sports players, the hypothesis also stated that there would be effect of training method on the speed and strength of the sports players of Hyderabad Karnataka region. The study sample selected randomly according to the simple random method of the sample selection, fifty basketball players were selected from the Gulbarga university for the research study. The advanced circuit training used as research tool to train the sample group of sports players. The training given to the sample group for four weeks to development of speed and strength.

One hundred meters race and pull ups tests were used to test the speed and strength of the sports players. The speed measured by time and strength measured by counts.

The investigator taken the pre test on the speed and strength of the sports players and the data was recorded in the data sheets after four weeks of specific circuit training again the investigator tested the speed and strength of the sports players for the post test data and recorded in the sheets, the pre and post tests data was statistically calculated to prove the research hypothesis of the study.

Key words – Circuit training method, speed and strength.

INTRODUCTION

Circuit Training is a variation of Interval Training. It is a very old tactic, some might say it's out-dated, but people still practice it and get fantastic results. It is ideal for when you are trying to cut fat while continuing to build

muscle. Circuit training is where you do a cardio activity, then periodically, you do a bodyweight activity. An example would be, jog for 1 minute, do 10 push-ups, then jog for again repeating the cycle for 20-40 minutes. In circuit training, there aren't really suggested times or reps you should do, that is really up to what you are able to endure.

Circuit training is an excellent way to improve mobility, strength and stamina. The circuit training comprises of 6 to 10 strength exercises that are completed one exercise after another. Each exercise is performed for a specified number of repetitions or for a set time before moving on to the next exercise. The exercises within each circuit are separated by a short rest period, and each circuit is separated by a longer rest period. The total number of circuits performed during a training session may vary from two to six depending on your training level (beginner, intermediate, or advanced), your period of training (preparation or competition) and your training objective.

Looking for a way to infuse your fitness routine with some new energy and excitement? Whether you're a seasoned athlete or just getting started with physical activity, circuit training is a great way to challenge your body in a variety of ways while boosting the fun factor.

WHAT IS CIRCUIT TRAINING?

A typical circuit training workout includes about 8-10 exercise stations. After completing a station, instead of resting, you move quickly to the next station. A muscular strength and endurance circuit alternates muscle groups, such as upper body, lower body and core, so little or no rest is needed in between stations. This article focuses on another form of circuit training: aerobic + strength. This type of circuit alternates 1-2 sets of resistance exercise (body weight, free weights, dumbbells, kettle bells, bands, etc.), with brief bouts of cardiovascular exercise (jogging in place, stationary cycling, rowing, etc.) lasting anywhere from 30 seconds to 3 minutes. Depending on your goals and the number of circuit stations, you can complete 1 or more circuits in a 30-60 minute session.

Advantages of Circuit Training

Boredom and time constraints are frequently cited reasons for giving up on a fitness routine. Sound familiar? Circuit training offers a practical solution for both. It's a creative and flexible way to keep exercise interesting and saves time while boosting cardiovascular and muscular fitness. You'll burn a decent amount of calories too—in a 1-hour circuit training session, a 150-pound person burns about 308 calories at a moderate intensity; and 573 calories at a vigorous intensity. Because the exercises can be performed in any sequence, you can create an endless number of combinations and design every workout to match your mood or specific training goal.

Participating in a group circuit-training class is a great way to discover new exercises you might not have tried on your own.

At the Gym

Check to see, if your gym offers circuit training classes. You'll need to move quickly from station to station, so it's tough to do on your own during regular gym hours when others are using equipment. If you're working with a certified personal trainer, ask for help in building a custom circuit training workout using a variety of equipment.

Circuit

Completing a variety of resistance exercises and high intensity cardiovascular exercises in quick succession can improve both strength and endurance (3). For individuals short on time, 3-4 brief sessions per week is an effective way to develop all-round fitness.

Athletes embarking on a sport specific strength training program should always start with a phase of basic strength training (1). This generally occurs during the closed season in the early part of the preparation phase and is used to prepare the body for more strenuous work later on. Even experienced athletes require a phase of basic strength training to help correct some of the muscle imbalances that inevitably occur with competitive sport. Circuit training is a good choice as alternating exercises allows for maximum recovery of muscle groups. Increased rest intervals between stations is important as this phase of training should not be too intense. Many athletes require good muscular endurance for effective performance in their sport. A circuit training session can be developed to meet their specific needs. By keeping rest intervals short a cardiovascular element is developed and by alternating exercises ad muscle groups, more work can be completed for a longer period. Circuit training for a multi-sprint sport such as soccer will differ significantly compared to circuit training for a marathon runner for example

Circuit Training Guidelines For General Fitness

Circuit training can be completed 2-4 times per week. As with resistance training at least 48 hours should be left between sessions that work the same muscle groups.

For general fitness a resistance should be chosen that allows the station to be completed for the prescribed period of time (1-2 minutes for example). Resistance may also be governed by bodyweight and the weight of the implements used, such as medicine balls.

Circuit training classes consist of about 8-12 stations. These are usually completed for 30-90 seconds with 30-90 seconds rest between each station. Progression can come through either increasing the station time or decreasing the rest intervals. Choose only one at a time however. A total of 1-3 circuits is typical with 2-3 minutes rest between each circuit (2).

This type of circuit can also be used by athletes during closed or off season training. Two or three circuit resistance training sessions can be interspersed with 2-3 cross-training cardiovascular workouts.

General fitness/aerobic circuits

General fitness/aerobic circuits are simply to raise work capacity, improve fitness, and can also be used as a recovery modality on days when the athlete is beat up and needs to back off. The intensity of these circuits is low and the rest interval between movements is minimal, allowing the athlete to move from one exercise to the next at their own pace. The only time I assign a rest interval for this circuit is if we use resistance and the individual is performing 8-12 repetitions using a 15-20RM load, followed by 30-60sec rest. However, if we are doing these circuits for recovery purposes, we rarely approach intensity/effort like that, usually just performing various mobility drills and/or core work.

Strength circuits

Strength circuits are focused on improving strength, just as the name implies. Usually I go to a superset of two main exercises with a mobility or core exercise in between them or I do a circuit of push, pull, legs, core. The important thing here is the rest interval, which so many do not obey. If you are able to perform this sort of work with no rest interval or very little rest then you probably need to place more weight on the bar and work towards getting more strength.

Reps in this circuit are ≤ 5 per set and the rest interval is anywhere from 3-5min. Rest can be active rest, which is why I use the mobility or core work in between; however, there are times when complete rest is going to be desired in order to allow for full recovery. Additionally, I do not pressure the individual to move rapidly from one movement to the next, rather, I allow them to take their time when moving to the mobility/core exercise so

that they can get sufficient rest and prepare for the next exercise or next set. The rest interval is very important here to allow for recovery and allow them to output as much force as they can.

METHOD OF THE STUDY

Objective of the study

- ❖ To find out the effect of training method on the speed of sports players
- ❖ To find out the significance effect of training method on the strength of sports players

Hypothesis of the study

- ❖ There would be significant effect of the training method on the speed and strength of the sports players

Sample of the study

The study sample selected randomly according to the simple random method of the sample selection, fifty basketball players were selected from the Gulbarga university for the research study.

Tool of the study

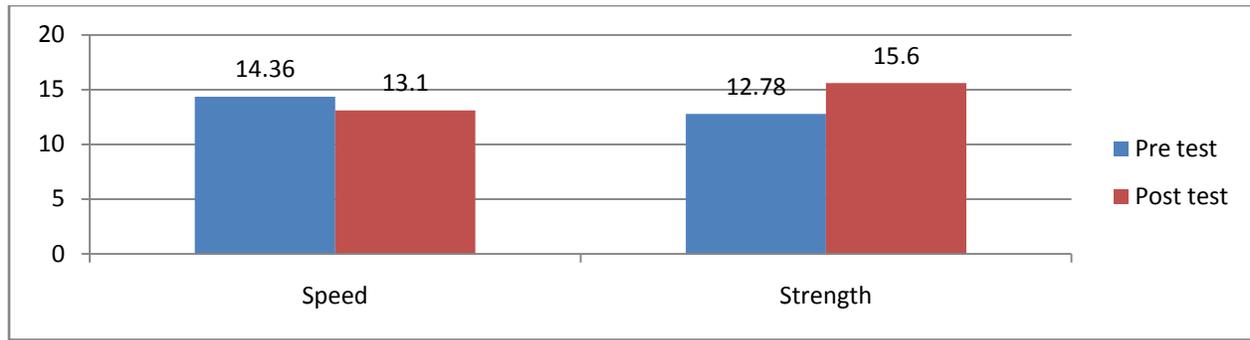
The advanced circuit training used as research tool to train the sample group of sports players. The training given to the sample group for four weeks to development of speed and strength. One hundred meters race and pull ups tests were used to test the speed and strength of the sports players. The speed measured by time and strength measured by counts.

DATA ANALYSIS AND INTERPRETATION

Table-1 – Showing the mean, SD, t value of Pre & Post tests on speed and strength of sports players

Factors	N	Tests	Mean	SD	t-Values
Speed	50	Pre Test	14.36	1.13	5.521**
		Post Test	13.10	1.14	
Strength	50	Pre Test	12.78	1.56	6.349**
		Post Test	15.60	2.84	

Significant at 0.01**



The table and graph showing the effect of training method on the speed and strength of sports players, the training having the significance positive effect on the speed, the t value is 5.521** significant at 0.01 level. In strength the training method having the positive effect, the t value 6.349** indicates the effect of training.

CONCLUSION

- There is positive effect of training on the speed of sports players.
- There is significance effect of training on strength of sports players.
- The circuit training useful to develop the motor fitness.

REFERENCES

1. Alcaraz Ramón PE , Sánchez-Lorente J , Blazevich AJ . *Physical performance and cardiovascular responses to an acute bout of heavy resistance circuit training versus traditional strength training . J Strength Cond Res . 2008 ; 22 : 667 – 671 . [PubMed]*
2. *Online journals*
3. *training methods*
4. *Online library source on Google. In*