



## **Effect of endurance training on cardio-respiratory of Kabaddi players**

**Dr. Bahadur Singh**

Associate Professor, PGS. Govt. College of Physical Education, Patiala, Punjab, India

### **Abstract**

The aim of the study was to find out the effect of endurance training on cardio-respiratory of kabaddi players. A total of 50 male kabaddi players were selected for this study. To find the effect of endurance training on cardio respiratory of selected players, heart rate & respiratory rate were taken. For this four week training were planned. The age of the subjects ranged from 18-25 years and all the samples selected from random basis. Results found that endurance training improve the cardio respiratory functions of kabaddi players.

**Keywords:** endurance training, cardio respiratory, Kabaddi players

### **Introduction**

Cardio respiratory wellness includes all the of the level of effectiveness for which the muscle to has the capacity to supply addition oxygen on working muscles Throughout heightening exercise, what's more entryway adequately the individuals muscles have the ability on absorb oxygen will produce those vitality vital with contend. Cell sludge mold proselytes vitality put away in the constitution under adenosine triphosphate - ATP - vitality that is used to fuel attempting muscles. The body's common capacity will finish this substance process is the item for your vigorous vitality framework. VO<sub>2</sub>max will be an adjusted estimation of the most extreme measure for oxygen that your constitution may be physically ready should expend with produce vitality to working muscles. It basically determines generally cardio respiratory wellness level. Heart yield determines the measure of blood those particular figure pumps through those heart clinched alongside one minute. This is computed by multiplying heart rate toward stroke volume. Those Normal grown-up holds 5 liters for blood in the form. Secondary perseverance Competitors who raise their heart rates on 165 beats for every moment throughout cardiovascular exercise will pump 20 with 40 liters from claiming blood through that heart for every minute, as stated by Sports wellness counselor. This intends that body's blood supply will venture out through the heart in any event four times for every minute.

Heart rate drastically expands throughout cardiovascular exercise. Perseverance preparation expands blood volume and accelerates blood stream. Heart rate levels off following crest force will be arrived at throughout cardiovascular exercise, such as b-ball. This may be known as steady-state heart rate. It happens the point when that common request for oxygen in working muscles is met toward that cardio respiratory framework. Secondary persistence Competitors have to point will accomplish a static level for heart rate on support general stamina. Long separation running Furthermore wind sprints would compel preparation activities on expansion cardio respiratory wellness.

Cardiovascular molding is exceptionally imperative in arriving at Furthermore expanding your baseball Also softball execution. Low cardio perseverance might bring about weariness split What's more low energy, throughout an amusement alternately season. Poor oxygen blood supply necessary to those requests about your sport, Might bring about declining assume Also execution. Additional importantly, low persistence due to insufficient cardiovascular conditioning, will influence your capability with look after What's more keep legitimate posture Also mechanics throughout your execution raising the hazard of wounds. Football and hockey oblige cardiovascular quality What's more perseverance. Amusements require an extensive amount about prevent Also begin movements Also frequently all the last several from claiming hours. This requests vitality starting with both your vigorous furthermore anaerobic vitality frameworks. Exceptional molded players will demonstrate fewer impacts about weariness over a solitary diversion and in addition through those spans of a long season. Also, preferred molded players are more averse to middle of the road heat-related illnesses starting with playing outside throughout that warm middle of the year months. Cardio respiratory persistence will be the level in which your heart, lungs, furthermore muscles fill in together the point when you're working out to a broadened time about time. This demonstrates how effectively your cardio respiratory framework functions, Also will be a pointer from claiming how physically fit and solid you are. It's handy to think your cardio respiratory persistence level as a result it cam wood whichever make a sign of wellbeing alternately a sign that you requirement on enhance your level of wellness. Expanding cardio respiratory perseverance needs a sure impact around your general wellbeing. Your lungs Furthermore heart have the capacity will finer utilize oxygen. This permits you on exercise to more periods without getting tired. A large portion individual's cam wood expansion their cardio respiratory persistence Eventually Tom's perusing finishing general exercises.

Metabolic equivalents (METs) would used to measure your power from claiming practice Also uptake for oxygen. They measure vitality consumption at rest. Cardio respiratory perseverance may be measured Eventually Tom's perusing greatest oxygen uptake (VO2 max) what's more entryway it's utilized throughout extraordinary exercise. Higher sums about oxygen uptake indicate that you're utilizing that's only the tip of the iceberg oxygen what's more that your cardio respiratory framework is working effectively. VO2 tests are as a rule done with a clinician alternately exercise physiologist over an laboratory, hospital, alternately facility. You could would sub maximal tests for a qualified wellness instructorship. Sub maximal exercise tests are used to measure your cardio respiratory perseverance. Though you're physically fit alternately an athlete, you might measure your cardio respiratory wellness using, Astrand treadmill test, 2.4 km run test, multistage bleep test and cooper 1. 5-mile walk-run test.

**Methodology**

The sample for the present study is 50 male kabaddi players were selected. To assess the heart rate & respiratory rate, digital instruments were administered individuals as well as small group. Prior to administration of test through informal talk was taken for the subjects procedure of the test. While collecting the data for the study the later approaches were adopted. For this four week training were planned. The age of the subjects ranged from 18-25 years and all the samples selected from random basis. To find out the effect of endurance training on cardio-respiratory of kabaddi players, 't' test was used.

**Data Analysis and Discussion**

**Table 1:** Significance of Mean between Pre Test and Post Test of Heart Rate

Variable	Pre Test		Post Test		MD	't' ratio
	Mean	SD	Mean	SD		
Heart Rate	108.5	13.89	101.3	15.92	7.2	5.05*

\*Significance at 0.05 level.

From table no.1 results revealed that heart rate before and after training, the mean value of 108.5 & 101.3 were observed respectively, the obtained 't' value is 5.05 was significant at 0.05 level.

**Table 2:** Significance of Mean between Pre Test and Post Test of Respiratory Rate

Variable	Pre Test		Post Test		MD	't' ratio
	Mean	SD	Mean	SD		
Respiratory Rate	20.76	4.01	17.6	5.21	3.16	2.93*

\*Significance at 0.05 level.

From table no.2 results revealed that mean value of respiratory rate before and after training 20.76 & 17.6 were observed respectively, the obtained 't' value is 2.93 was significant at 0.05 level, that means there is a significant effects of endurance training on respiratory rate.

**Conclusions**

It is concluded that there is a significant effects of endurance training on respiratory rate or in other words we can say that there is an improvement of cardio-respiratory function of kabaddi players.

**References**

1. Blythe L. The 100 best swimming drills. Meyer and Meyer Game Verlag, 2008.
2. Costill DL. Adjustment in skeletal muscle amid preparing for run and continuance swimming. Swimming Medication IV, Baltimore, 1978.
3. Counsilman JE. Aggressive Swimming Manual for Mentors and Swimmers. Bloomington, In: Councilman Co, 1977.
4. Dudley GA, Abraham WM, Terjung RL. Impact of Gaeser, G.A. and Wilson, L.A., Impacts of persistent and interim preparing on the parameters of the power-continuance time relationship, 1982-1998.
5. Hurley BF, Nemeth PM, Martin WH, Dalsky GP, Hagberg JM, Holloszy JO. The impacts of continuance practice preparing on intramuscular substrate use amid delayed submaximal exercise. Medicine and Science in Games and Exercise. 1985; 17:259-260.
6. Ingebrigtsen J, Shalfawi SA. Execution impacts of a month and a half of oxygen consuming creation preparing in junior world class soccer players. J Quality Cond Res. 2013; 27:1861-1867.
7. Kindermann W, Simon G, Keul J. The noteworthiness of the oxygen consuming anaerobic progress for the assurance of work stack powers amid intense exercise. European Diary of Connected Physiology. 1979; 42:44.
8. Madsen O, Olbrecht J. Particular of oxygen consuming preparing. World Center Yearbook, altered by R.M. Ousley, Post Lauderdale Fl. American Swimming Mentors Affiliation, 1983, 15-29.
9. Randers MB, Mujika I, Mohr M. Utilization of four distinctive football coordinate examining frameworks – a relative report. J Games Sci. 2010; 28:171-182.
10. Wilmore JH, Costill DL. Physiology of Game and Exercise, second version, Champaign, II: Human Energy, 1999.