

# PHYSICAL FITNESS OF SOUTH SUMATERA FOOTBALL ATHLETES FOR PON XIX 2016

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**PHYSICAL FITNESS OF SOUTH SUMATERA FOOTBALL ATHLETES FOR PON XIX 2016**

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**Abstract**

This study aims to determine the physical fitness of South Sumatera football athletes for PON XIX 2016. The method used is survey method with test and measurement techniques. The physical components include power, muscular endurance, agility, flexibility, speed, aerobic capacity (VO2max). The results for the power physical components gain average categories in 75% with medicine ball test. The muscular endurance physical components gain poor category with 83% in sit up test. The agility physical components gain excellent category with 58% in shuttle run test. The flexibility physical components gain good category with 46% in sit and reach test. The speed physical components gain excellent category with 63% in 20 m run test and the aerobic capacity (VO2 max) physical components gain good category with 50% in bleeb test.

**Keywords:** Physical Fitness, Athletes, Football, PON XIX 2016.

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**INTRODUCTION**

Football game consists of two teams, each team consists of eleven players who played on a rectangular open field with the aim of the game is to score as much as possible into the opposing goal. In Indonesia itself the popularity of this sport is increasing from year to year. More and more football teams are popping up, as well as the proliferation of matches are held.

Branch football is a sport game which is very popular with the people of Indonesia, including South Sumatra province. South Sumatra football team is a team that qualified for the Pre PON in Bangka Belitung 2015 as group winners and entitled as one of the teams of the 16 teams that follow the National Pekan Olahraga Nasional (PON) XIX September 2016 in Bandung, West Java.

Carrying the gold medal target at the PON XIX in 2016 in West Java, South Sumatra football team started training at Wisma Atlet Center Jaka Baring with a magnitude 26 athletes, four coaches under the command of the legendary Rudi Kelces. After a physical test against 24 athletes of the team coaches draw up an exercise program for 9 months with the first 3 months focusing on the physical aspects of the player, 3 months both on technical and tactical aspects and 3 months on strengthening the aspects of the team or trial. In this study the authors wanted to describe the physical condition of the athlete South Sumatra provincial football while competing in PON XIX in 2016 in Bandung, West Java which only reached the last eight large and thus a PON XIX football team in 2016 failed to achieve the target of a gold medal for the contingent South Sumatra.

Bompa opinions (2009), the physical condition is one element in achieving peak performance, to be able to achieve peak performance must be the physical exercise and the aim is to prepare physiological athletes to adapt to the load and exercise form. Then, according to (Fox, 2000), physical exercise is a systematic process of preparing athletes at the highest level performances done repeatedly with increasingly higher loads. Then Soekarman opinion (2000) that major achievement was to prepare the physical condition of athletes in accordance with the dominant component of the sport concerned.

Some of above opinion can be concluded that a good physical condition with regular and sustained exercise will be able to increase the ability of organs work and skill athletes, thus excellent physical condition will support the techniques, tactics and overall athlete appearances, in other words a peak physical condition to be able to determine the achievement of a championship team.

### **Theoretical Background**

On the branches of sports games that require a long time needed a good physical condition, it is in accordance with the opinion of Bomp (2009) physical endurance will determine the success in achievement, especially in sports that require endurance in long periods of time without experiencing fatigue in when the game or race.

Physical ability according to Fox (2000), is the ability of functioning the organs of the body in physical activity. Physical ability is very important because skilled movements can be done if his physical ability is adequate to support developing psychomotor activity. Pate (1990) argues, physical condition is the complete unity of the physical components that can not be separated from one another, both increases and maintenance. Thus, in improving the physical condition of the entire physical component must be trained to develop.

The physical condition can reach the optimum point when to start training as early as possible and is done continuously and continuing based on the basic principles of exercise. The ability of a person's physical condition can be determined by doing a physical exam, can be done in laboratory or in the field. Good physical condition has advantages such as fatigue while training or matches, capable and easily learn the skills that are relatively difficult, exercise programs can be completed without having a lot of obstacles and can complete the strenuous exercise (Iykrus,2013). The physical condition is required by an athlete, because without the support of top physical condition then the achievement of the peak will encounter many obstacles, and impossible to reach high achievement. Thus, it is necessary for the physical test of physical ability and determine the future direction of physical exercises for an athlete.

The role of physical test for an athlete is to see the weakness and disability, in order to do the exercises directed towards maximum performance in the face of a match or competition. This is in line with the opinion of Widiastuti (2015) physical test aims to: a) identify the physical condition of athletes, b) monitor the progress of the exercise, c) diagnose the weaknesses of the athlete, d) equalize the target coaches and athletes, e) predict potential achievements, and f) evaluate the program and the implementation of the exercise.

### **METHOD**

The type of research used in this research is descriptive quantitative research with survey research methods to see the physical ability of South Sumatera football athletes for PON XIX 2016, with data collecting technique used test. This research was conducted in Jakabaring Sport City complex of Palembang, with a period of research in August 2016. The sample in this study is the South Sumatera football athletes for PON XIX 2016 consisting 24 people who follow the training center at Wisma Atlet Jakabaring Palembang. Data collection techniques used in this research is a form of field test as follows: a) vertical jump test to measure leg muscle strength, b) medicine ball test to measure arm muscles strength, c) push-up tests to measure muscle endurance arm, d) sit-up test to measure endurance abdominal muscles, e) shuttle run test to measure agility, f) sit and reach

test to measure flexibility waist, g) run 20 meter test to measure speed, and h) bleeb test to measure aerobic capacity (VO2 max) aerobic endurance (VO2 max) with a bleep test. The collected data is then analyzed statistically using the percentage was then calculated at each test category.

### RESULT AND DISCUSION

The test results in this study are described in the form of a frequency distribution data as shown in table 1 below:

Table 1. Data Description the results of physical tests South Sumatera football athletes for PON XIX 2016.

| No | Component Fisik            | Jenis Test    | Category  |    |      |    |         |    |      |    |      |    |
|----|----------------------------|---------------|-----------|----|------|----|---------|----|------|----|------|----|
|    |                            |               | Excellent |    | Good |    | Average |    | Fair |    | Poor |    |
|    |                            |               | f         | %  | F    | %  | f       | %  | f    | %  | f    | %  |
| 1  | Power                      | Vertical jump | 0         | 0  | 1    | 4  | 1       | 4  | 5    | 21 | 17   | 71 |
| 2  |                            | Medicine ball | 6         | 25 | 0    | 0  | 18      | 75 | 0    | 0  | 0    | 0  |
| 3  | Muscular Endurance         | Push up       | 4         | 17 | 9    | 38 | 5       | 21 | 6    | 25 | 0    | 0  |
| 4  |                            | Sit up        | 2         | 8  | 0    | 0  | 1       | 4  | 1    | 4  | 20   | 83 |
| 5  | Agility                    | Shuttle run   | 14        | 58 | 10   | 42 | 0       | 0  | 0    | 0  | 0    | 0  |
| 6  | Flexibility                | Sit and Reach | 2         | 8  | 11   | 46 | 8       | 33 | 3    | 13 | 0    | 0  |
| 7  | Speed                      | Run 20M       | 15        | 63 | 8    | 33 | 1       | 4  | 0    | 0  | 0    | 0  |
| 8  | Aerobic Capacity (vo2 max) | Bleeb         | 1         | 4  | 12   | 50 | 3       | 13 | 1    | 4  | 7    | 29 |

Table 2. Data Description the results of physical tests South Sumatera football athletes for PON XIX 2016 based on percentage.

| No | Component Fisik            | Jenis Test    | Mean  | Category  |
|----|----------------------------|---------------|-------|-----------|
| 1  | Power                      | Vertical jump | 63.91 | Poor      |
| 2  |                            | Medicine ball | 5.41  | Average   |
| 3  | Muscular Endurance         | Push up       | 44.00 | Average   |
| 4  |                            | Sit up        | 50.45 | Poor      |
| 5  | Agility                    | Shuttle run   | 11.63 | Excellent |
| 6  | Flexibility                | Sit and Reach | 20.29 | Average   |
| 7  | Speed                      | Run 20M       | 2.95  | Excellent |
| 8  | Aerobic Capacity (vo2 max) | Bleeb         | 50.77 | Average   |

Diagram of test results by categories can be viewed as follows:

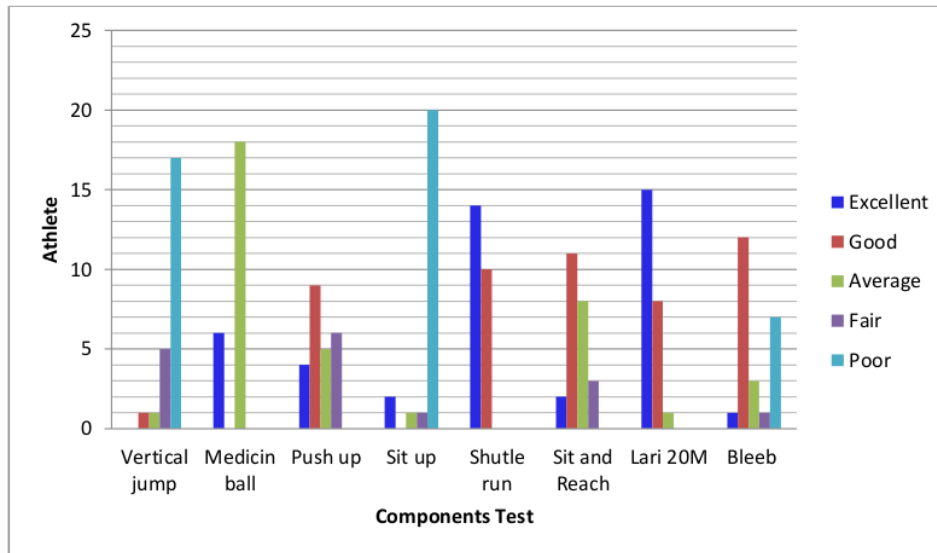


Figure 1. Categories Physical Tests PON Football Athletes

In Table 1 above leg muscle strength test results are 0 (0%) athlete with an excellent category, 1 (4%) athlete with a good category, 1 (4%) athlete with an average category, 5 (21%) athlete with a fair category, and 17 (71%) athlete with a poor category. Arm muscle strength test results, there are 6 (25%) athlete with an excellent category, 0 (0%) athlete with a good category, 18 (75%) athlete with an average category, 0 (0%) athlete with a fair category, and 0 (0%) athlete with a poor category. The push up test results, 4 (17%) athlete with an excellent category, 9 (38%) athlete with a good category, 5 (21%) athlete with an average category, 6 (25%) athlete with a fair category, and 0 (0%) athlete with a poor category. The sit up test results, 2 (8%) athlete with an excellent category, 0 (0%) athlete with a good category, 1 (4%) athlete with an average category, 1 (4%) athlete with a fair category, and 20 (83%) athlete with a poor category. The shuttle run test results, 14 (58%) athlete with an excellent category, 10 (42%) athlete with a good category, 0 (0%) athlete with an average category, 0 (0%) athlete with a fair category, and 0 (0%) athlete with a poor category. The sit and reach test results, 2 (8%) athlete with an excellent category, 11 (46%) athlete with a good category, 8 (33%) athlete with an average category, 3 (13%) athlete with a fair category, and 0 (0%) athlete with a poor category. Run 20 meter test results, 15 (63%) athlete with an excellent category, 8 (33%) athlete with a good category, 1 (4%) athlete with an average category, 0 (0%) athlete with a fair category, and 0 (0%) athlete with a poor category. The bleeb (VO2 max) test results, 1 (4%) athlete with an excellent category, 12 (50%) athlete with a good category, 3 (13%) athlete with an average category, 1 (4%) athlete with a fair category, and 7 (29%) athlete with a poor category.

The results of the above research was supported by the opinion of Soekarman (2000) which states that the physical condition of athletes is of utmost importance to achievement, especially in a sport that requires excellent physical elements such as football. Then, research Iykrus (2013) Physical exercise specifically leading to the physical needs of the dominant sports games such as branch sepak takraw is an absolute thing to do, in other words physical exercise in a physiological

sense is an improved system and organ function in its duty to realize an athlete's performance by physical aspects. The opinions above are supported by research Pate (1990) mentions physical exercise can increase the efficiency of several organs and functions involved in the implementation of the exercise. Physical exercise in principle is to provide the physical stress on the body on a regular basis, systematic, continuous so that can lead to their ability to do work.

The opinions above are supported with theory Bompa (2009) which states that the role of the dominant phases in the sports game is the physical condition of athletes that can sustain technique and appearance of confidence, so that, to achieve these conditions are the main physical exercise is carried out repeatedly and increases the resistance to increase strength and muscle endurance, physical exercise is also aimed at achieving a biological adjustment so that the activity can be displayed optimally. In principle, the exercise must be in accordance with the needs and must occur in order to face the task of biological stress or heavy work. In principle, the exercise must be in accordance with the needs and must occur in order to face the task of biological stress or heavy work. This opinion is consistent with research Marcello, F (2009) if you want to develop the physical condition of athletes must exercise in accordance with the dominant physical aspects, aspects of the power should exercise the power, if it wants to develop the aspect of speed should exercise speed, and if you want to develop the aspect of speed endurance should exercise speed endurance. According to Jan Hoff (2007) physiologically most basic principle of training is specific adaptations to imposed demand and progressive overload principle.

#### **CONCLUSION AND REMARK**

The results of physical tests South Sumatera football athletes for PON XIX 2016 can be summarized as follows: 1) leg muscle strength aspect with poor category, 2) arm muscles strength aspects with average category, 3) abdominal muscle strength and arm muscles aspect with average and poor category, 4) agility aspects with excellent category, 5) the aspect of flexibility with average category, 6) aspect of the speed with excellent category, and 7) aspects of aerobic capacity (VO<sub>2</sub> max) with average category.

Physical condition is an absolute thing that must be possessed by a football athlete in accordance with the physical components of the dominant sport, and physical test is an instrument that is necessary for an athlete to see his physical abilities and shortcomings in order to perform optimally in accordance with the coaches training program.

Suggested to the coaches that the above benefits to be trained according to the needs of a soccer athlete.

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