

Influence of Cricket Players Fitness On Physical Variables Performance

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Abstract

The fitness demand in cricket is vary in according to the players' role and their playing position and also the game format. The purpose of this study was to design the Game Specific Fitness Profile of male Cricket Players. It may be conclude that the physical fitness performance of cricket players was lower than comparative scores but this physical fitness performance can be improve to the higher level through the scientific, systematic, specific, modern and well planned fitness training programme by an expert and the following points can be suggested. The Static Jump performance can be improve through the various concentric training programme, countermovement Jump can be improve through the plyometric and explosive strength training programmes, agility can be developed through the development of agility related components, short time stride and plyometric training with reaction time the sprint performance can improve of the cricket players, and the endurance in the cricket is one of debated fitness component still for the demand of higher level of performance of a batter of bowler or for a wicket keeper it can be developed through interval endurance training programme. Individual training program should develop on playing role (batter, bowler, wicket keeper) wise.

Keywords: *Fitness training, agility, strength endurance, cricket, Speed, acceleration, explosive power, static jump.*

1. INTRODUCTION

Cricket is the most popular game and the richest game in the history of all ball games. In cricket, offensive (batting) principles include scoring runs, avoiding getting out or defending the wicket (staying in), and hitting into space to achieve these offensive goals. Defensive (bowling and fielding) principles include restricting runs scored, getting batters out, and preventing hitting into space to achieve these defensive goals. The simple offensive goals in cricket are to hit the ball into the field so that it eludes the fielders and to not get out. The defense attempts to restrict run scoring and to get batters out. Agility is the ability of a person to change positions in space or to change direction quickly and effectively. The ability to perform a series of explosive power movements in rapid succession in opposing direction (e.g. zig-zag running or cutting movements). Agility is the ability to change the direction of the body in an efficient and effective manner. Agility is the main component of physical fitness. Agility is the ability of a man to coordinate his movements and synchronize them according to the requirement of changing condition in fast start and quick change in direction are fundamental to good performance practically in all team game such as basketball, volleyball, tennis, badminton, soccer and cricket etc. Strength endurance is the ability of a muscle or muscle group to perform repeated contraction against a resistance to sustain contraction for an extended period of time with less discomfort and more rapid recovery. Strength endurance is defined as the capacity of the whole organism to withstand fatigue under the long lasting exhausting of strength. Consequently it is characterized by a relatively high ability to express strength together with a faculty of preserve. Sports specific training is basically fitness and performance training designed specifically for sports performance enhancement and which include areas such as strength, speed, power, endurance, flexibility, mobility, agility, mental preparedness (including goal setting), sleep, recovery/regeneration techniques and strategies, nutrition, rehabilitation, rehabilitation and injury risk reduction. Even though cricket is the most popular game in India, very few scientific research were done on sports training on performance related variables, so thus study was taken to determine the effect of cricket specific fitness training program on agility and strength endurance among college level men cricketers.

2. PHYSICAL FITNESS AND CRICKET

Cricket is a sport that historically doesn't consider fitness to be very important. The success of the Australian team in the 1990s and 2000s was however due in part to their professionalism and to their fitness. The other test nations rightly have recently placed more emphasis on health and reap the advantages. With one day Cricket and Twenty20, the game has undergone significant changes and the physical demands on a Cricketer's body have also significantly increased. The value of fitness differed, depending on the version and the position of the player in the team: a fast bowler's fitness needs were greater than an opening batsman, but one day Cricket was more demanding than an experimental match.

KapilDev, an ex-captain of the Indian cricket team and a top cricket All-rounder has begun training at a very young age and strongly believes that his overall performance in all aspects of game bowling, batting and fielding has led to a completeness of his physical fitness. He claims that during off-season cycles, physical exercise helped him bowle long sports again and again without any exhaustion or hesitation. In 1978 Kapil started his career as a test individual. An excellent achievement! He would also go to strong jogging, spring and stretching exercises as a child. He would also bowl on the nets before exhaustion was reached.

Nearly all physical activities have one or more strength, speed, length and range of movement elements. When a certain exercise is needed to resolve resistance, a strength training is called. It is referred to as a speed exercise if speed and high frequency is maximised. When distance, length or the number of repeats are high, a stamina is done. In the other side, a flexibility movement is carried out if the range of movement is maximised. And lastly, if a high level of difficulty is needed in a specific exercise, this is known as coordination.

Four main skills are technological, physical, tactical and mental for all elites sportsmen and women. The subsequent ability will make a decisive difference in terms of athletes' skills. In knowing, studying and finally using mental skilledness for high performance Sports psychology played a significant role. For the length of more than four hours, batsmen will remain at the pit for as long as possible. A good batsman must be able to remain centred, have good ball/eye skills and the strength and fitness required to make any shot played effective. On the other hand, strength comes from the abdominal centre and the capacity to produce explosive acts of the upper bodily body. On the other hand, a minor changes in the direction can be rendered by the film energy of the ball to score four runs by the batman. Sadly, only a few class batsmen earned this professional talent. Fielders need the stamina to maintain a concerted effort in tireless and often very warm conditions for six or more hours. At every given moment, the body must be able to burst explosively, like running to a ball and sauting for a catch. Unlike batting and bowling, every cricket player may contribute to its position. In a close game, fielding is always the deciding factor between winning and losing a match. Cricketers should find a place fun rather than an exhaustive chore while progressing through various stages of their development. Boxes and processes from a very early age are taught. Even in international crickets, people might see the ball collect with an ineffective balance and find it hard to make precise throws to make an end. Learning to pick up the ball from either side would ensure that the ball stops and it is a little nerve-wracking that the batsman starts running, particularly if the ball is in the 30 metres circle. Fielding is also an important game skill. More focus has been given in recent times to fielding.

A great six or the sight of the stumps going through a fast bowler never matches the excitement the spectators feel with a splendid piece of ground. Good fields like Rhodes are more common than big hitters ever before. Fielding is a frequent part of all cricket games. Not only in every match is the big hitting seen. In order to sustain a high count of excesses, bowlers need both explosive strength and pace along with strong muscle endurance. Poor fitness and musculosity lead to improper bowling and greater risk of damage, particularly for bowlers at high speed, and also allow batsmen to get more runs on the wickets. Every player will be in the game, bat and field at some time. With these as goals in mind, a cricket training programme is planned.

For a fast bowler, versatility is very necessary. "Flexibility is intended to give bowlers full freedom to move at full speed, without jeopardising their muscle." " " In Cricket, these physical characteristics are well incorporated, which include indifferent acts performed by batsmen, wicket holders and campers. In general it takes power when executing a potent hit out of the ground or in a bowl; speed is required to take a fast single to stop a ball before it crosses the boundary line; versatility is demonstrated by an acrobatic fielder; square drive, square cut speed through the cord of fields demonstrates a high degree of coordination and pace bowling through the sessions. Even a single stroke performed by a batsman master reveals an outstanding combination of all these properties when the obvious thing was just good timing for a casual observer. Let's take a well-performed cover drive as an example. The batman

has to focus & watch as a bowler runs in and then lungs forward in the split second displaying pace and versatility well when the ball is powerful and coordinated. If it sees a chance to take a fast single, it takes one easily, and it takes a ball with a stamina after a ball. The game stretches over five days (in tests), mostly depending on the activities on the fifth day. An opener, a wicket keeper, a quick bowler and an all-rounder need plenty of stamina. If a player is breathing without air after two runs, the next ball cannot be well coordinated or solid to perform a well. A bowler who breathlessly loses length for the next three balls after bowling. For different muscle groups the production of these characteristics is different, as is for different people, due to their individual needs. While the training programme, generally speaking, is standardised, the need for it must be individualised.

3. FIELDING

For six hours plus fatigue free time and under some very warm conditions, the campesinos need the ability to maintain a concentrated effort. Their bodies have to be ready, at any given time, to explode explosively — like a sprint for a ball and a catch. Walk and stretch muscles whenever possible, keep the body working during the pitch. Take a look at your mind and see just what you are going to do when the ball comes up. In order to sustain a high number of excesses, bowlers need both explosive strength and pace, along with strong muscle stamina. Poor fitness and muscle strength lead to poor bowling and an increased risk of damage, particularly for bowlers of high speed.

1. Strength

Strength is our ability to use one muscle or muscle group combination to exert force. Our strength in cricket plays an important role in preventing and improving chronic and acute injury. The standard weight lifting exercises such as Squats, lungs, presses and Olympic lifts will build up our strength.

2. Stamina and Endurance

Cricket requires frequent shifts from high to rest strength. It is important for you to quickly use energy for full speed, power, and performance during periods of high intensity. Stamina refers to the ability of the body to absorb, deliver, store and use energy, an important part of cricket fitness. Anywhere from an hour to a few hours, matches will last. In this way, endurance will improve your performance and health. Endurance requires the capacity to collect, process and distribute oxygen to work tissues and muscles in the cardiovascular and respiratory systems.

3. Speed

Speed is the ability to repeat movements in a short time frame, and cricket players use speed while running on offense and defense. They can build and improve their speed using plyometric exercises, shuttle sprints or speed workouts.

4. Coordination and Agility

It is a high degree of coordination and endurance to field, throw and strike. Cricket coordination refers to their ability to integrate several complex motion patterns into one smooth motion. By repeated practise sessions which reinforce proper mechanical skills, you can improve coordination. The capacity to reduce transition time between movements refers to agility. They play agility in cricket and run the base to score a run.

5. Accuracy and Power

The accuracy factor refers to the ability to monitor movements in a particular direction or intensity. Similar to teamwork, repeated practises will improve their accuracy. Power is the capacity to use full force over a minimum duration. You can boost your power with strength training, Olympic lifts, plyometric and speed training. You can improve your strength. Your precise and powerful fitness components are important for bowling and batting.

6. Flexibility

Flexibility means that you can optimise the motion of your joints and muscles. Flexibility is the most common fitness aspect. They can also boost speed, endurance and other fitness components with increased versatility. During the training sessions or strength and conditioning exercises, endurance may be increased. Like any athlete, cricket players should also undertake a strength and configuration programme to peak at certain stages of the year. If you do

not concentrate on a mix of strength and resonance training during the winter/off season, you can use FREE cricket training programme to improve your ability and reduce the risk of injury during the summer time. The site members have a range of power programmes which are sufficient to enhance overall strength, in particular in critical areas like the abdominal oblique and the shoulder brace.

It is important to ensure a correct warm-up and extended routine before each match starts, along with complex movements so that bowlers and snack man remain at the best performances for long matches, to avoid injuries and ideally complete the full season. In our members' field, there is a dedicated section built solely for cricket players. In addition to providing a strong foundation for strength and conditioning, the abilities of the game need to be carried out best as a team to achieve a higher level of ability in combination.

4. TEN PRINCIPLES OF CRICKET FITNESS

Ground Based Activities. The theory here is that as a cricketer play cricket standing up, he should train standing up. This is because running, throwing, playing a shot and bowling are all initiated by applying force against the ground. So it makes sense to drop as many training activities that require to sit or lie down.

Multiple Joint Actions. Cricket skills require a great deal of coordination. It can be trained by picking exercises that use more than one joint. For example, squats require the use of knees, hips, ankles and even shoulders and arms to hold the bar. A leg extension just requires the knees to move.

Three Dimensional Movements. Cricket is played in 3D (no, really it is),this means training should reflect that by training with free weights where possible because free weight also train the cricketer on three planes whereas machines are designed to train only in two (with the cams, seats and pulleys taking the strain from the third).

Train Explosively. Speed and power come from how quickly the muscles can work. Muscles work faster if they are trained with explosive fast movements rather than slower strength based exercises. This means exercises like the clean and plyometric are vital to cricketers.

Progressive Overload. To improve fitness need to keep progressing the workouts. More reps leads to greater muscle endurance and size, more weight leads to greater strength and power. While cricketers shouldn't ignore the former, the latter should be their ultimate goal.

Periodization. A periodised approach of yearly plan is vital to all players.

Split Routine. Splitting weight training routine over several days (rather than training the whole body every time) gives time to recover that will help to train harder.

Hard-Easy System. This is linked back to periodisation. The concept is simple, cricketer can't train at full effort every time or they will burn out.

Train Specifically. To get the best out of us on the cricket field our training need be as close to the real thing as possible. That means exercises that train the body to be fast and powerful, not long runs.

Interval Training. Leading on from specific training, work and rest should simulate the demands of cricket which means short periods of intense activity followed by long periods of active rest, just like when batting, bowling or fielding.

5. CRICKET AND SPEED

Cricket is a game that is fast and going. After a ball is struck, it moves near 90 mph. Once the ball is hit, it needs to be able to address visual stimulus, and move to the place it goes, so the ball can be picked up or brought back to the wicket. The ball needs to be hit. You have to be fast when struggling to make a single double, which also raises the pace of the game and pressures the fielding team to more. The time is given for the batteries to run faster when they are running faster, so the batteries are put under more pressure by turning the previous statement onto the head. Bowling requires pace in order to run to the wicket faster and to make the ball faster. If the fields are not balanced, quick, agile, accelerated, reactive, versatile any shot will slowly and out of place. The main goal for the felder is to

have the opportunity to play sound for each ball and to minimise the amount of runs that the opposition has. When you play a routine ball inside the range, it's relaxed and a routine game. If however, the fielder(s) are to depend on the reaction, start pace, acceleration and the number of runs to be played, the opposition will be determined by the athletic movement capabilities of the campesinos.

6. CRICKET AND STRENGTH

I hear another comment: "Cricket athletes mustn't be strong" or "Cricketers need just a low power level." This comment seems to come primarily from sportsmen, coaches and trainers. All fast bowlers have vertical reaction forces in the body 3,8-9 times their weight, which go through their bodies while they bowl. About 6-8 times the body weight is 90 percent of the bowlers. When we look at Tim Southee, his body weight is 91kg and about six times that in his delivery. That means that every time he bowls the ball, he has 546 kg of pressure through a leg. In a test match day, when he bowls over 25, the pressure he has to contend with will be 8,190kg in one beat. It's a huge amount of weight and strain, if you can't tell from the numbers. As an athlete, through your lower body you must be very powerful. Gymnastics is the only other sport that I can notice when the competitors land after a sail. They are 7-18 times as wide as the body. See how solid are these athletes and how many injuries are. They land on a padded sprung floor and land at two feet (sharing the load between legs) or on a one-two landing on the other foot. This decreases the pressure they withstand by 1/4 per leg. The distance covered by these guys along with the power to cope with the pressure is a special athlete.

7. CRICKET AND FLEXIBILITY

The quest for better efficiency and injury prevention without a committed approach to versatility is incomplete. If this quality is not understood, the advantages gained by other factors and the risk of injury can be eliminated, thus reducing the efficacy and efficiency of movement. Cricket is important to flexibility because of joint tension in relation to complex, multi-joint motion like batting and bowling. Flexibility applies in this way to the ability to move joint and surrounding muscles through a whole range of motion. Missing motion can lead to injuries and reductions in speed, agility, strength and stamina. It can also restrict the potential of individual cricketers. Certain stretching exercises determine the outcome: if the cricketer wants to permanently improve the range of movement, daily sessions must be included in the programme. The key concept during these sessions is that each stretch must be continued for a long time and not as a pre-training stretch during a dedicated session. These extensions facilitate temporary muscle lengthening and should be kept in less time, i.e. 10 seconds, in order to avoid the muscle losing too much before training, which is a risk.

8. CONCLUSION

The game of Cricket can have a variety of lengths and structures. The standard cricket game consisted of 1 inning per hand, and it took hours or more to complete this match. Cricket is a sport where fitness is not considered as important historically. However, the success of the international matches is due to the professionalism in fitness and their professionalism, and part of their fitness is attributed to those countries that dominated the international cricket over the last ten years, including West Indies and the Australian Team. The other test countries rightly have recently stressed fitness and are reaping the advantages. Cricket is now being played out in various formats worldwide and requires a lot of speed, power, agility, explosiveness, muscle resistance, softness, coordination, responsiveness and cardiovascular endurance. The demand for the game forces each player to continue the normal, progressive and precise fitness training. The findings of the study will highlight the cricketers' unique workouts and training programmes to enhance their physical health and performance. Team success is based on individual performance collective effort. Person and team sports demand the willingness, depending on the circumstance of the game, to run, throw, and batte for a prolonged time. In order to maximise results, the current decade's sports fitness trainers aim to integrate practical training. During the past few decades, training trainers and coaches are used in the form of game-specific plyometric training, stamina training, pace training, and explosionary training. The strength, pace, stamina, agility and power production of all sports are acknowledged without any dispute. Sports fitness coaches and researchers devote considerable time to work on stamina, endurance and development of muscle capacity. The researcher tried to analyse the results of both modes of training: functional training and game-specific plyometric training in order to assess the relevant influence of the study's selected dependent variables.

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