

Touch football and energy systems essay



**ASSIGN
BUSTER**

It is important that the selected training improves the body ability to perform tasks associated with the chosen sport. Kiss, 2010) Touch football is a fast paced game where an oval-shaped ball is passed between players who avoid being touched' by the defensive team, in order to score a touchdown. The game requires a range of demands from the three energy systems; Creating phosphate, Lactic Acid and Aerobic. Specific fitness components are also required to perform a game of touch effectively. There are three positions in a touch game; centre, link and wing. They all require varied amounts of the energy systems and fitness components.

This assignment will focus on the exercise physiology in relation to touch and the evaluation of my own fitness profile. 1. Data Analysis The game of touch consists of two teams with 6 players on each. The aim is to score a touchdown without being touched'. Players are to dodge being touched by members of the opposing team and 7 must be made for the call to change hand of play. After a touch the ball must be put down and a second player collects and passes it while the defense team must be back mm until the ' dummy half collects the ball. The field is mm x mm and features a touchdown zone, mm line, mm line and half way line. See figure 1. 1 below) (Touch Football Victoria, 2013) There are three main positions in a name of touch centre and wing. Centers are positioned in the middle and are the team's central drive. Wings occupy the outer edges of the field and must be very quick. Links fill in the spaces and are critical in controlling wings and centers. (Wreathe Touch, 2010) Figure 1. 1 Dimensions off Touch Field 2. 2 Middle Position Requirements Positioned in the centre between the links, centers must be aerobically fit with great communication and ball skills.

They are mostly responsible for driving the team forward with the ball and defending with evasive techniques. (Touch Dump, 2011) Fitness Component Requirements (aerobic capacity, coordination, local muscular endurance) Aerobic Capacity Middles are usually the fittest members of a team and therefore require a high level of aerobic capacity. Aerobic capacity can be defined as the ability to persist in physical activities that rely on oxygen to keep producing energy to fuel the whole body for an extended period of time. (Amazedly, 2010) Aerobic capacity uses the aerobic energy system.

The aerobic energy system is used for long-term energy and has unlimited amounts. A middle needs to be aerobically fit to align the rest of the layers and to continue to move forward and back simultaneously. A game of forty minutes requires a long duration of energy and almost 20% of a touch game uses the aerobic energy system. (Wick. Answers, 2011) Muscular Endurance Muscular endurance is the ability to uphold reworked muscular contractions for an extended period of time. (Kiss, 2010) Constant running that is demented in the middle position utilizes muscular endurance.

The middle position also constantly performs roll balls and pick ups by the dummy half. This repeated action of roll balling and collecting requires constant demand from muscles such as quadriceps, lutes, hamstrings and calves. Maintaining the energy to complete repetitive muscular contractions at sub-maximal force is derived from the aerobic system. Coordination Coordination is the ability of the senses, nervous system and muscles to work together allowing the performance of smooth and accurate movements. Amazedly, 2010) Passing and catching is an essential part of being a middle, whether it is receiving from the dummy half or passing out to <https://assignbuster.com/touch-football-and-energy-systems-essay/>

a wing; these movements require limbs to move in the right direction and at the right SP effectively. Energy System Requirements to be performed A game of touch requires the use of all energy systems at once but in varied amounts. The body will automatically choose which energy system it requires the most based on the fitness components used. It has been identified above that the three main components used by a middle are; Aerobic capacity, muscular endurance and coordination. In figure 12. It shows the relationship between components of fitness and energy systems. Both aerobic capacity and muscular endurance relate to the Aerobic system. The aerobic system uses oxygen and is generally one of low-mid intensity and/or of a longer duration. Middles utilities this energy system because they continuously require energy production at an almost equal rate. 2. 3 Wing Position Requirements The wings are the two outermost players on a field. Wings must be quick and able to produce explosive efforts. In attack they should be towards the sidelines anticipating opportunities to score, whilst defense they can move inwards more. Wreathe Touch, 2010) (anaerobic capacity, agility, muscular power) Anaerobic Capacity Wings are usually the quickest members of the team, relied on to score. They need speed, agility and quickness, which all derive from an anaerobic base. Anaerobic capacity can be defined as, the ability to quickly put body parts into motion and sustain high intensity efforts. (Amazedly, 2010) This fitness component is most relevant to wings. While playing touch wing players have rapid increases in energy demand such as short sprints forward or to score. The game of touch repeatedly demands these high intensity efforts.

After these short bursts of acceleration wings must be able to recover quickly without fatigue. Quick recovery cannot be done without a high level of anaerobic capacity. Agility Agility is defined as the ability to change body position quickly with precision and accuracy. Agility is important to wing as you are constantly changing body positions throughout a game and accuracy and precision is essential to scoring and dodging in game play. Examples where agility is used is dodging a defender while running, changing positions quickly such as a swap over or moving back, anticipating other peoples movements and performing a dummy.

Muscular Power Muscular Power is defined as the ability to use strength quickly for an explosive effort. Wings constantly require explosive efforts throughout a game. Wings are relied on to score, explosive sprints when scoring use muscular contractions at maximal Orca. These contractions require power from muscles such as quadriceps, glutens, hamstrings and calves. Muscular power may also be used in long passes and dives to score. The three main components used by wings have been identified as; anaerobic capacity, agility and muscular power. Referring back to figure 12. Showing relationships between fitness components and energy systems. Anaerobic capacity, power and agility all relate to the anaerobic energy system. The anaerobic energy system does not require oxygen and is used for high intensity efforts for short periods of time. Wings utilities this energy system because they constantly require short explosive efforts. 2. 4 Personal Fitness Profile Graph: Identifying Strengths and Weaknesses 1 . Poor 2. Fat 3. Average 4. Excellent 5. Super 3. 0 Discussion Fitness tests provide a general understanding of your own fitness condition.

They then can assist in the evaluation and identification of strengths and weaknesses in various fitness components. Once these fitness components have been identified, positions or sports can be selected for strengths and weakness conditioned by selected training techniques. Using my own fitness tests as well as, knowledge of energy systems, fitness components and personal experience I was able to select the best-suited position for myself in a game of touch. The position I chose is the middle. My own fitness results have been displayed on the previous page in graph form.

Fitness components rated poor were; Anaerobic Capacity and Balance. Rated fair; Muscular Strength. These are the weakest components of my own fitness. My stronger points included muscular endurance rated super followed by co-ordination and agility with the rating of excellent. Average components were aerobic capacity, flexibility and power. Above in 2. The main fitness components for a middle were aerobic capacity, coordination, and muscular endurance. Two of which were my top strengths. Rating highest in muscular endurance and second in co-ordination.

Aerobic capacity was rated average but is the easiest fitness component to train with the selected techniques and frequent exercise. Anaerobic capacity was rated as one of my lowest and is the most fundamental fitness component to the wing position. Although agility was one of my strengths it would have to be repeated constantly and derives from an anaerobic base, this would disadvantage me greatly as a wing. During touch the body uses up large amounts of energy in three different ways. These three systems all combine over periods of exercise.

Different positions or sports mostly have a major system, which takes up the bulk of energy production during play. The middle positions major energy system is the aerobic system. After roughly 4 minutes of continuous exercise the aerobic system takes over. By breaking down proteins, carbohydrates and fats it reassesses TAP molecules. Unlike the lactic acid system it requires oxygen to complete the breakdown of glucose and reduces no acid instead carbon dioxide and water are produced, which are much easier to remove. This system is easily replenished and can be continuously used for extended periods of time. Emaciated, 2008) The aerobic system relates to the three main fitness components for a middle; aerobic capacity, muscular endurance and co- ordination. All three components are used over extended periods of time and require a constant effort at a smooth rate. Although aerobic capacity was rated average in fitness testing it is easy to improve by any type of prolonged exercise that keeps your heart rate up. . 0

Recommendations To further enhance future performance in touch football it is important to consider weaknesses and then select the best training method to see improvements.

My weakest component in relation to my selected position as a middle is aerobic capacity. Aerobic capacity can be defined as the ability to persist in physical activities that rely on oxygen to keep producing energy to fuel the whole body for an extended period of time. Improving aerobic capacity will allow me to use more oxygen thus working at higher levels of intensity for prolonged periods in a touch game. (Shape Sense, 2013) Training aerobic capacity is quite easy compared to other fitness components. The training

type used will be continuous training, it is the simplest form of aerobic training.

Heart rate should be elevated and sustained for a prolonged period of time therefore increasing aerobic threshold. (Sniping, 2013) Training Plan: Activity | Cycling or Jogging | Intensity | Reaching around 60%-69% of maximum heart rate. Gradually increase intensity level as fitness improves | Time | Anywhere from 20 minutes to 60 minutes | How often | Three- five times a week | Improvements would be seen using this training plan because it would push the aerobic threshold for sustained period of time therefore increasing it.

Intensity needs to be increased gradually to continue to see results by continuously pushing the aerobic threshold. Time must be above 20 minutes because the longer the body is trained the greater an adaptive response will be. (Shape Sense, 2013) 5. 0 Conclusions The research conducted throughout this report has been in relation to the topics: Energy Systems, Fitness and Touch Football. Our own personal fitness testing was conducted in class to help us best select a position in the chosen sport of touch oddball.