Long Term Effects of Exercise

A netball player has taken part in a 6-week training programme in order to improve their aerobic fitness. Evaluate the long-term effects of exercise that the netball player will have experienced and discuss the impact that these effects will have upon performance. (9 marks)

A01 = 2, A02 = 2, A03 = 5

Paragraph 1 (A01 - 2 marks)
As a result of the 6-week training programme the netball player will have experienced long-term effects of exercise such as an increase in cardiovascular endurance, an increase in cardiac hypertrophy and a lower resting heart rate.

Paragraph 2 (A02 - 2 marks)
Cardiovascular endurance is the ability to exercise the whole body for long periods of time. The more efficient the heart and lungs are at supplying the body with exercise, the longer it will take to become fatigued during exercise. Cardiac hypertrophy refers to the increase in the strength and size of the heart. If the heart is bigger and stronger, it will be able to pump oxygenated blood to the muscles at a faster rate. A lower resting heart rate indicates a stronger heart and a more efficient aerobic system.

Paragraph 3 (A03 - 5 marks)
As a result of improved cardiovascular endurance, the netball player will be able to move around the court for a longer period without becoming fatigued. This is because they will become more efficient with supplying the muscles such as the quadriceps and hamstrings with oxygenated blood. A lower resting heart rate shows increased aerobic fitness and this will mean that it takes less time to recover following matches. As a result, less rest will be required before returning to training. However, it should be noted that as well as aerobic fitness, anaerobic fitness is also very important in the sport of netball. Speed and power are vital for short, dynamic movements and these components of fitness should also be targeted to optimise performance.

Further detail is added and links are made to performance in the sport of netball.