

## **HEALTH AND WELLBEING IN BADMINTON**

### **General Facts:**

The financial cost of physical IN-activity to the NHS is about £900million a year

More men meet physical activity guidelines than women.

Physical activity declines with age for both genders

Adults should aim to be active daily. Over a week, activity should add up to at least 150 minutes (2½ hours) of moderate intensity activity in bouts of 10 minutes or more – one way to approach this is to do 30 minutes on at least 5 days a week.

Alternatively, comparable benefits can be achieved through 75 minutes of vigorous intensity activity spread across the week or combinations of moderate and vigorous intensity activity

The biggest drop out from sport occurs between age 16-24, particularly in females.

### **Physiology:**

It is recommended by Public Health England that exercise is **Regular**. It should involve the use of **large Muscle groups** and should cause **heart rate and breathing to increase significantly**.

**Physical inactivity** is the 4<sup>th</sup> leading cause of premature death worldwide, and is directly linked to the **development of a number of diseases** (World Health Organisation, 2010).

However, many studies have demonstrated that those who participate in physical activity, have a **reduced risk** of Obesity, Cancer, Hypertension, Coronary Heart Disease than those who are sedentary. **The more you do, the lower the risk!**

Furthermore, physical activity is recommended by medical professionals as a **non-pharmacological treatment** in those who have already been diagnosed with a range of chronic diseases and has been shown to **improve a wide range of health parameters**.

Physical activity can **aid weight loss** and help to break down excess dietary fat and sugar to prevent weight gain resulting in:

A reduced the risk of Type 2 diabetes

Lower Cholesterol

Lesser fatty deposits in the blood vessels, which can cause hypertension and heart disease.

### **Why badminton?**

As we age, from the age of just 30, our muscles undergo a process called atrophy – whereby they **lose mass and become weaker**. This occurs at a rate of about 3-5% per decade. However, studies have shown that we can prevent, slow down, or even reverse this process by remaining physically active.

Similarly to the muscles, our bones also become weaker with age. Mineral loss causes the bones in our arms and legs to become more brittle, and the vertebrae in the spine loose fluid, making them thinner and compressed causing us to lose height. It is common to develop osteoporosis, and the overall chance of broken bones is higher. Cartilage loss can cause joints can become stiffer and less flexible, making movement more difficult, slower and sometimes painful.

**Stepping, jumping, lunging and changing direction** on the badminton court creates an impact that our bodies must absorb. This impact helps to **build and maintain muscle and bone strength**, and Badminton is considered an all **over body workout**. Furthermore muscles require more energy to work, therefore a greater muscle mass means that more energy is burned in a session, which **helps with weight loss**.

Badminton requires **agility, balance and coordination**, all of which are known to decline with age, however maintaining these motor skills by playing badminton, will **decrease the risk of falls and injury** away from the badminton court and **improve our overall quality of life**.

## Wellbeing

As well as the countless physiological benefits, physical activity can improve many aspects of our **psychological health and well-being**.

Badminton is a **fast paced sport**, making it ideal to **relieve feelings of stress**. It is likely that you will also experience feelings of **revitalisation** after a session

Physical activity can actually **reduce feelings of fatigue**. The mental health charity Mind report that those who exercise regularly have more energy during the day, and are able to **sleep better** at night.

Exercise causes the release of endorphins, hormones that **improve our mood**, and **lift feelings of anxiety**.

As you become fitter, your body becomes more efficient at dealing with the hormone cortisol – this leads to reductions in feelings of tension, and gives us a **higher tolerance to stress experienced off the court**.

Research has shown that people who had high low participation in physical activity and high screen time were more likely to suffer from mental health problems and worse sleep quality.

Physical activity leads to **improved self-esteem, confidence and body image**. This is due to **feelings of accomplishment and achievement** but can also be associated with **weight loss**.

Badminton involves tactical play, **concentration and decision-making**, all of which can make us **more alert** within other day-to-day tasks and activities.

The distraction of having to keep score, and concentrate on the shuttle, as well as enjoyment of the sport creates the illusion that time is passing more quickly, meaning that you are likely to **exercise for a longer period of time** than if you were in a gym.

## Community

As badminton must be played with other people, either one opponent, or a partner and 2 opponents, it is a very sociable sport.

Many people don't participate in physical activity, as they feel they are lacking a partner to exercise with. Badminton clubs are a great place to go to **find other like-minded people** for group exercise sessions.

Being part of a badminton club or team makes people feel as if they are a **part of a community**. This is a major factor in **promoting adherence**. Attending weekly sessions becomes more than simply exercising, it can be a chance to **socialise, meet new people, and create friendships** that extend outside of the badminton hall.

All clubs provide the opportunity for **both recreational and competitive badminton**, putting **no pressure** on players to compete. Many also **provide coaching or advice**, allowing players to **improve their game**, irrespective of their motivation for playing.

The most commonly cited reason for not participating in physical activity is a **lack of time**. There are a number of local badminton clubs, catering for all abilities in the local area, who play on different nights of the week. There are also a number of sports centres that hire courts on a pay and play basis.

Apollo Badminton Club offers both league and social play on a Thursday night 7.30 till 10pm at St Anselms School, Old Dover Road.

Badminton is one of the few sports that allows **males and females to play together**, regardless of age or ability. In fact, mixed doubles has always been the **most successful event** for Team GB badminton!

### **Before you play**

Dress appropriately in **comfortable clothes** that are **easy to move around in** and do not feel too tight or restrictive.

Ensure that you have the **appropriate footwear**. Players tend to wear indoor court shoes, as these do not leave marks on the floor, have a good grip and appropriate ankle support. This goes a long way in **preventing injury**.

The best rackets tend to be much lighter weight, and have tighter strings, which create more power than lower-priced rackets. Feather shuttlecocks are generally more expensive than plastic alternatives, and do not last as long.

Before playing, particularly if it is a competitive match, **it is important to warm-up**, in order to **prevent injury**. In badminton most people choose to do this on the court. Start with **light or gentle activity to increase blood flow** to the muscles and increase the heart rate gradually. You can achieve this through gentle mid-court hitting while moving the feet on the spot (jogging). **Gradually increase movement** around the court, and **speed and power** of the shots as the warm-up progresses. You can then complete some static stretches that target the major muscle groups used in badminton. It is important to warm up the muscles before doing any stretches.

Example stretches:

<http://www.topendsports.com/sport/badminton/warm-up.htm>

After you finish playing, a **cool-down** will prevent your hard-worked muscles from becoming stiff, and **minimise muscle soreness** in the following days. To cool-down, keep moving by walking around the court, until you can feel your **heart rate and breathing rate has reduced**.

Perform some **static stretches**, making sure you **stretch both sides of the body**, not just your playing arm, or lunging leg. **Hold stretches for about 20 seconds** while controlling your breathing.

Immediately after playing, **exercise can reduce our appetite**, by affecting hormones that regulate hunger, meaning that participation in **physical activity can help with dieting** by providing a distraction from hunger, or suppressing it.

Research has also shown, that **physical activity can have a positive effect on addiction**, and that **cravings for cigarettes and chocolate were lower** in the hours after a session of physical activity.

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