

Badminton is a racquet sport played by either two opposing players (singles) or two opposing pairs (doubles), who take positions on opposite halves of a rectangular court that is divided by a net. Players score points by striking a shuttlecock with their racquet so that it passes over the net and lands in their opponents' half of the court. A rally ends once the shuttlecock has struck the ground, and each side may only strike the shuttlecock once before it passes over the net.

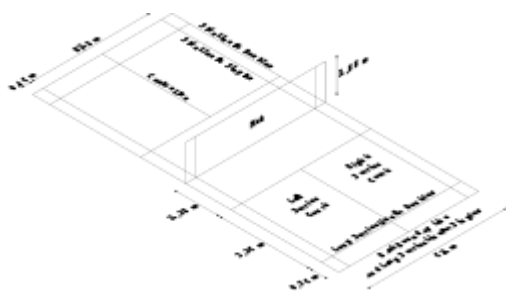
The shuttlecock (or shuttle) is a feathered projectile whose unique aerodynamic properties cause it to fly differently from the balls used in most racquet sports; in particular, the feathers create much higher drag, causing the shuttlecock to decelerate more rapidly than a ball.

Since 1992, badminton has been an Olympic sport with five events: men's and women's singles, men's and women's doubles, and mixed doubles, in which each pair is a man and a woman. At high levels of play, the sport demands excellent fitness: players require aerobic stamina, agility, strength, speed and precision. It is also a technical sport, requiring good motor coordination and the development of sophisticated racquet movements.

History

The first traces of a game involving the use of a shuttlecock can be found in Asia, and specifically in China. In the west, badminton came from a game called battledore and shuttlecock, in which two or more players keep a feathered shuttlecock in the air with small racquets.

Playing court dimensions



The full width of the court is 6.1 metres, and in singles this width is reduced to 5.18 metres. The full length of the court is 13.4 metres. The service courts are marked by a centre line dividing the width of the court, by a short service line at a distance of 1.98 metres from the net, and by the outer side and back boundaries. In doubles, the service court is also marked by a long service line, which is 0.78 metres from the back boundary.

The net is 1.55 metres high at the edges and 1.524 metres high in the centre. The net posts are placed over the doubles sidelines, even when singles is played.

There is no mention in the Laws of Badminton of a minimum height for the ceiling above the court. Nonetheless, a badminton court will not be suitable if the ceiling is likely to be hit on a high serve.

Equipment laws

The Laws restrict the design and size of racquets and shuttlecocks. The Laws also provide for testing a shuttlecock for the correct speed:

Scoring system and service

The basics

Each game is played to 21 points, with players scoring a point whenever they win a rally (this differs from the old system, where players could only win a point on their serve). A match is the best of three games.

At the start of the rally, the server and receiver stand in diagonally opposite *service*. The server hits the shuttlecock so that it would land in the receiver's service court. This is similar to tennis, except that a badminton serve must be hit below waist height and with the racquet shaft pointing downwards, the shuttlecock is not allowed to bounce and in badminton, the players stand inside their service courts unlike tennis.

In singles, the server stands in his right service court when his score is even, and in his left service court when his score is odd.

In doubles, if the serving side wins a rally, the same player continues to serve, but he changes service courts so that he serves to each opponent in turn. If the opponents win the rally and their new score is even, the player in the right service court serves; if odd, the player in the left service court serves

If the score reaches 20-all, then the game continues until one side gains a two point lead (such as 24-22), up to a maximum of 30 points (30-29 is a winning score).

Equipment

Racquets

Badminton racquets are light. They are composed of many different materials ranging from carbon fibre composite (graphite reinforced plastic) to solid steel,

Grip

The choice of grip allows a player to increase the thickness of his racquet handle and choose a comfortable surface to hold. A player may build up the handle with one or several grips before applying the final layer.



Shuttlecocks with feathers



A shuttlecock with a plastic skirt

Shuttlecock

A shuttlecock (often abbreviated to *shuttle* and also commonly known as a *bird*) is a high-drag projectile, with an open conical shape: the cone is formed from sixteen overlapping feathers embedded into a rounded cork base. The cork is covered with thin leather or synthetic material.

Synthetic shuttles are often used by recreational players to reduce their costs as feathered shuttles break easily. These nylon shuttles may be constructed with either natural cork or synthetic foam base, and a plastic skirt.

Strokes

Forehand and backhand

Badminton offers a wide variety of basic strokes, and players require a high level of skill to perform all of them effectively. All strokes can be played either *forehand* or *backhand*.

In the forecourt and midcourt, most strokes can be played equally effectively on either the forehand or backhand side; but in the rearcourt, players will attempt to play as many strokes as possible on their forehands, often preferring to play a *round-the-head* forehand overhead (a forehand "on the backhand side") rather than attempt a backhand overhead. Playing a backhand overhead has two main disadvantages. First, the player must turn his back to his opponents, restricting his view of them and the court. Second, backhand overheads cannot be hit with as much power as forehands: the hitting action is limited by the shoulder joint,

The choice of stroke depends on how near the shuttlecock is to the net, whether it is above net height, and where an opponent is currently positioned: players have much

better attacking options if they can reach the shuttlecock well above net height, especially if it is also close to the net.

In the forecourt, a high shuttlecock will be met with a *net kill*, hitting it steeply downwards and attempting to win the rally immediately. This is why it is best to drop the shuttlecock just over the net in this situation.

In the midcourt, a high shuttlecock will usually be met with a powerful *smash*, also hitting downwards and hoping for an outright winner or a weak reply. Athletic *jump smashes*, where players jump upwards for a steeper smash angle, are a common and spectacular element of elite men's doubles play.

In the rearcourt, players strive to hit the shuttlecock while it is still above them, rather than allowing it to drop lower. This *overhead* hitting allows them to play smashes, *clears* (hitting the shuttlecock high and to the back of the opponents' court), and dropshots (hitting the shuttlecock so that it falls softly downwards into the opponents' forecourt).

Comparisons with other racquet sports

Badminton is frequently compared to tennis. The following is a list of uncontentious comparisons:

- In tennis, the ball may bounce once before the player hits it; in badminton, the rally ends once the shuttlecock touches the floor.
- In tennis, the serve is dominant to the extent that the server is expected to win most of his service games; a *break* of service, where the server loses the game, is of major importance in a match. In badminton, however, the serving side and receiving side have approximately equal opportunity to win the rally.
- In tennis, the server is allowed two attempts to make a correct serve; in badminton, the server is allowed only one attempt.
- In tennis, a let is played on service if the ball hits the net tape; in badminton, there is no let on service.
- The tennis court is larger than the badminton court.
- Tennis racquets are about four times heavier than badminton racquets, Tennis balls are more than eleven times heavier than shuttlecocks.
- The fastest recorded tennis stroke is Andy Roddick's 246 km/h serve; the fastest recorded badminton stroke is Fu Haifeng's 370 km/h smash.