

Badminton

A. History

There are various accounts of how and when the game of badminton started. It is commonly accepted that a game with rackets and shuttlecocks was played at the estate of the Duke of Beaufort in Gloucestershire, England in 1873. The game was named Badminton after the name of the estate. It came about through a combination of two games: Poona, and battledore and shuttlecocks. In Poona, an Indian game, a parchment ball is batted over a net with rackets. It was learned by British army officers stationed in India, and subsequently brought back to England by them. Battledore and shuttlecock has been played in Europe and the orient for at least 2000 years. In it, contestants bat a shuttlecock back and forth, without permitting the shuttlecock to touch the ground, and without the use of a net.

From this starting point the game was played in various forms in different countries. In 1877 at Karachi in India, the first attempt was made to form a set of rules. The game developed in other areas of the world and it became essential that an acceptable standard set of rules should be devised. In 1893, the Badminton Association of England was formed and a standard set of Laws for the Game was devised.

The Badminton World Federation promotes AirBadminton in 2019, in order to provide more opportunities for different people to get in touch with badminton. We can also enjoy badminton on hard surfaces, grass or sand.

B. Equipment and Facilities

➤ The Court

- The court shall be a rectangle and laid out as in diagram below and to the measurements there shown, defined by lines 40 mm wide.
- The recommended headroom is between 6.1 metres and 9.2 metres.
- For safety reasons, there should be a space of 1 m outside the sidelines and 2 metres beyond the back boundary lines which is free from any obstructions.
- The lines shall be easily distinguishable and preferably be coloured white or yellow.

➤ The Posts and Net

- The posts shall be 1.55 metres in height from the surface of the court. They shall be sufficiently firm to remain vertical and keep the net strained.
- The net shall be made of fine cord of dark colour and even thickness with a mesh not less than 15 mm and not more than 20 mm.
- The net shall be 760 mm in depth.
- The top of the net shall be edged with a 75 mm white tape doubled over a cord or cable running through the tape. This tape must rest upon the cord or cable.
- The top of the net from the surface of the court shall be 1.524 metres at the centre of the court and 1.55 metres over the sidelines for doubles.
- There shall be no gaps between the ends of the net and the posts. If necessary, the full depth of the net should be tied at the ends.

➤ Shuttle

- The shuttle may be made from natural (mainly from goose or duck) or synthetic materials.
- The shuttle shall have 16 features fixed in the base.
- The shuttle shall weight from 4.74 to 5.50 grams. The heavier the faster. (4.9 to 5.1 grams is good for Hong Kong). Also represent by number like 75,76,77,78. The larger the faster.
- To test a shuttle, use a full underhand stroke which makes contact with the shuttle over the back-boundary line. The shuttle shall be hit at an upward angle and in a direction parallel to the sidelines. A shuttle of correct pace will land not less than 530 mm and not more than 990 mm short of the other back boundary line.

➤ Racket

- The racket can be made of different materials such as wood, metal, carbon graphite, boron, etc.
- The frame of the racket, including the handle, shall not exceed 680 mm in overall length and 230 mm in overall width. The overall length of the head shall not exceed 290 mm.
- When the CG (Center of gravity) of the racket is in front, it is good for attack; when the CG is at the back, it is good for defense; when CG is in the middle, it is balance for both. Some racket nowadays can tune the CG by adding the accessories at the frame.
- G means grip circumference, the smaller the letter, the bigger the circumference, like G3 to G5; L (Light) and U (ultra-light) is the weight of the racket, the bigger the letter the lighter the racket, like 3U to 5U.



➤ Racket string

- Usually made of synthetic fibers.
- Thicker string is more durable but less hitting power; thinner string has better hitting power but less durable.
- The stringing tension is between 20 to 26 lbs. The heavier the tension, the bigger the hitting power. Some players will have their stringing tension up to 30lbs.

C. Basic Skills

1. Serving

Key points

- Standing with feet front and back, arms open, holding shuttle in front and racket at the back.
- During hitting, the Centre of gravity transfers from the rear foot to the front; rotate the body from waist to shoulder, swing racket forward, hit the shuttle at the height between waist and knee, then follow through.
- The hitting point must not be higher than 1.15meter

- High serve
 - Gripping : forehand
 - Impact point : in front of the gripping hand, at the height of knee
 - Direction of racket face : up and front
 - Objective : hit the shuttle up and high, from mid-court to opponent's rear court,
 - Aim : move the opponent to the rear court, empty space appears at the front court area

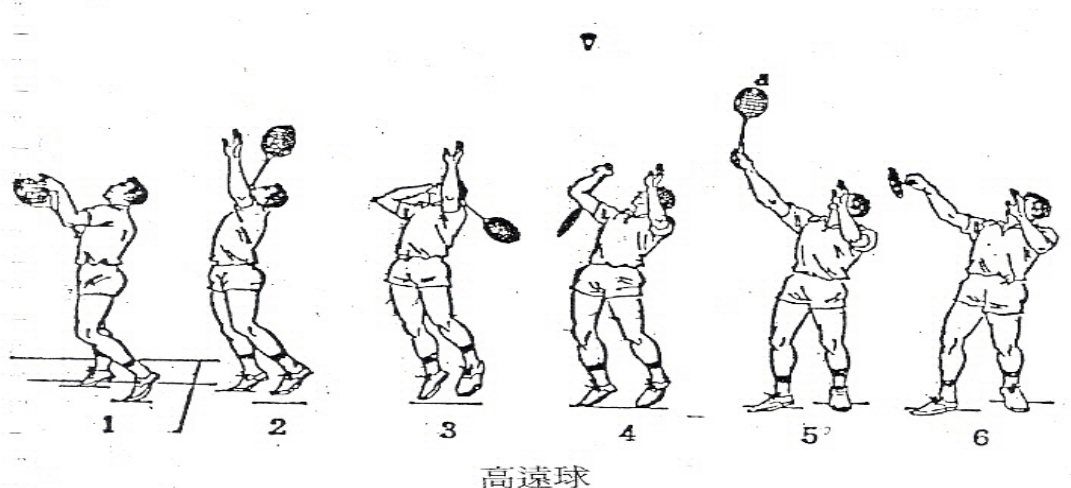
- Short serve
 - Gripping : forehand, backhand, or flat grip
 - Impact point : in front of the gripping hand, below waist
 - Direction of racket face : up and front
 - Objective : hit the shuttle up and high, from mid-court to opponent's front court,
 - Aim : move the opponent to the front court, empty space appears at the rear court area

- Flick serve
 - Gripping : forehand, backhand, or flat grip
 - Impact point : in front of the gripping hand, between waist and knee
 - Direction of racket face : up and front
 - Objective : hit the shuttle up and high, from mid-court to opponent's rear court,
 - Aim : to change speed, error or weak return may be made by opponent

2. Overhead Strokes

Skill analysis

- Preparation phase – feet standing front and back , foot of gripping hand at back, elbow at right angle, racket pointing upwards, body weight on rear foot
- Hitting phase - the centre of gravity transfers from the rear foot to the front; rotate the body from waist to shoulder, elbow raised to ear's height with racket point downward
- Contact phase – elbow extends forearm pronation, hits the shuttle at the desirable point.
- Follow through – after hitting, swing racket forward and down, stop at the non-gripping hand side

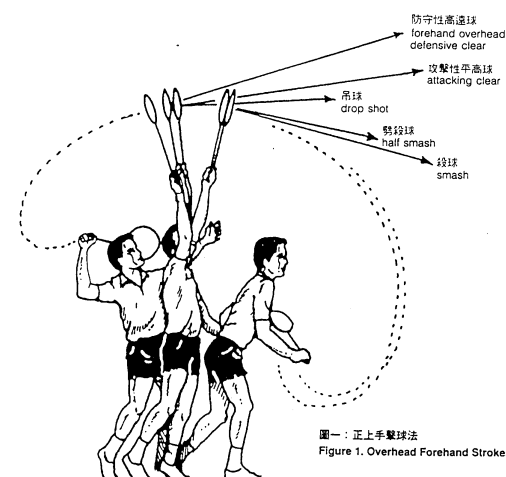


Description of strokes :

- Forehand clear
 - Gripping : forehand
 - Impact point : above and behind the body
 - Direction of racket face : up and front
 - Objective : hit the shuttle up and high, from rear court to opponent's rear court,
 - Aim : move the opponent to the rear court, empty space appears at the front court area.

- Smash
 - Gripping : forehand
 - Impact point : above and in front of the body
 - Direction of racket face : front and downward
 - Objective : hit the shuttle downward forcefully, to opponent's mid-court or rear court
 - Aim : to kill and win the rally

- Drop shot
 - Gripping : forehand
 - Impact point : above and in front of the body
 - Direction of racket face : front and downward
 - Objective : hit the shuttle downward slightly, from rear court to opponent's front court,
 - Aim : move the opponent to the front court, empty space appears at the rear court



3. Underarm strokes

Key points

- Standing with feet front and back, gripping-hand foot in front, elbow flex, wrist extend
- During hitting, elbow extend, forearm pronation, hit the shuttle in front of the body

- Forehand lob
 - Gripping : forehand
 - Impact point : in front of the body, knee height
 - Direction of racket face : front and upward
 - Objective : hit the shuttle upward forcefully, from front court to opponent's rear court
 - Aim : move the opponent to the rear court, empty space appears at the front court

- Backhand lob
 - Gripping : backhand
 - Impact point : in front of the body, knee height
 - Direction of racket face : front and upward
 - Objective : hit the shuttle upward forcefully, from front court to opponent's rear court
 - Aim : move the opponent to the rear court, empty space appears at the front court

4. Front court strokes

Key points

- Standing with feet front and back, gripping-hand foot in front, knee bending
- Forehand net shot
 - Gripping : forehand / flat grip
 - Impact point : at the net
 - Direction of racket face : front and upward
 - Objective : hit the shuttle over the net slightly, from front court to opponent's front court
 - Aim : move the opponent to the front court, empty space appears at the rear court
- Backhand net shot
 - Gripping : backhand
 - Impact point : at the net
 - Direction of racket face : front and upward
 - Objective : hit the shuttle over the net slightly, from front court to opponent's front court
 - Aim : move the opponent to the front court, empty space appears at the rear court
- Push
 - Gripping : flat grip
 - Impact point : at the net
 - Direction of racket face : forward and upward
 - Objective : hit the shuttle over the net, from front court to opponent's mid or rear court
 - Aim : attack
- Tap
 - Gripping : flat grip
 - Impact point : at and above the net
 - Direction of racket face : downward
 - Objective : hit the shuttle downward, from front court to opponent's mid- court
 - Aim : attack

5. Strokes besides the body

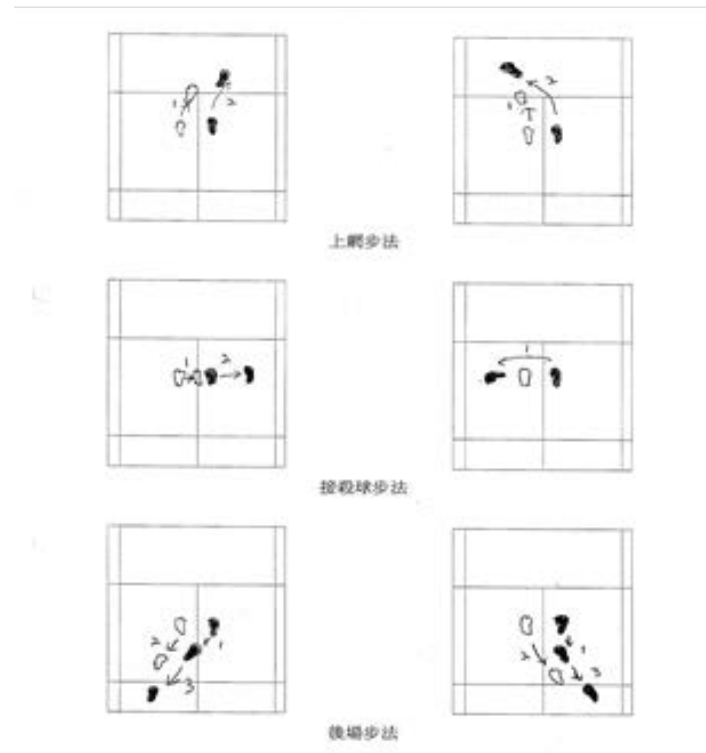
Key points

- Pull the racket back fast with wrist extended
- Return of smash
 - Gripping : forehand / backhand
 - Impact point : in front of the body, between waist and knee
 - Direction of racket face : forward and up
 - Objective : hit the shuttle to any part of the opponent's court from mid-court
 - Aim : play the shuttle far away from opponent

- Drive
- Gripping : forehand / backhand
- Impact point : waist to shoulder height besides the body
- Direction of racket face : forward
- Objective : hit the shuttle horizontally from mid-court to opponent's mid or rear court
- Aim : attack

6. Foot work

- Basic movements :
 - Chasse action : one foot is moved and the other is drawn up to it
 - Running action : the legs are moved alternately as in conventional walking action –both forward and backward
- Key point :
 - No matter what step is used, player must run fast and pay attention do the correct skill
 - For overhead stroke, the leg at racket side should be the rear leg.
 - For underarm stroke, the leg at racket side should be the front leg.



- Movement patterns :
 - General speaking, we have front-court, mid-court and rear-court movement.

D. STRATEGIES OF THE GAME

The Key strategies in badminton are fast, actively offensive, and attack

Play my familiar tactic, be fast, and be offensive

➤ Singles

Try to play the shuttle to the four different corners which is far away from your opponent.

It can keep the opponent running, thus make him/her tired and makes mistakes. When there is an error or weak return, smash for the point.

Usually, to serve low for offensive strategy while serve high for defensive strategy.

➤ Mixed Doubles

Usually ladies in front and men at back. Ladies will control the net, play net shot and force the opponent to lift the shuttle up so that the man at the rear court can attack by smash, drop, or drive; she can then tap the shuttle down if the opponent made a poor net shot. Try to play the shuttle towards the ladies as she is not as powerful as the men.

➤ Men's and Ladies' Doubles

Players standing front-and-back while offence, and side-by-side during defense. Offensive strategy is employed in most doubles teams. The player in front will serve low and short; control the net, play net shot to force the opponent to lift the shuttle up and the player at the back can attack by smash, slow drop, sliced smash etc., once the opponent makes a mistake (the opponent made a poor net shot or weak return to the rear court), then seizes the opportunity to kill and win.. It is also mainly attacking when receive the serve. When the opponent serves short, try to tap or push the shuttle, and then concentrate at the net, force the opponent to lob, and we can smash and attack powerfully. Play straight court, sometimes middle of two players, or play the shuttle towards the weak player.

E. Scoring System

➤ Scoring system

- A match shall consist of best of three games, unless otherwise arranged.
- The side which first scores 21 points shall win a game,
- The side winning a rally shall add a point to its score.
- If the score becomes 20-all, the side which scores two consecutive points shall win.
- If the score becomes 29-all, the side scoring the 30th point shall win that game.
- The side winning a game serves first in the next game.

➤ Change of ends

- Players shall change ends at the end of the first game;
- prior to the beginning of the third game (if any); and
- In the third game, or in a match of one game, when a side first scores 11 points.

➤ Serving and receiving courts

✧ Singles

- The players shall serve from, and receive in, their respective right service courts when the server has not scored or has scored an even number of points in that game.
- The players shall serve from, and receive in, their respective left service courts when the server has scored an odd number of points in that game.
- The shuttle shall be hit alternately by the server and the receiver until the shuttle ceases to be in play.

✧ Doubles

- A player of the serving side shall serve from the right service court at the start of the game or when the serving side has not scored or has scored an even number of points in that game.
- The player of the receiving side standing in diagonally opposite service court of the server shall be the receiver.
- A player of the serving side shall serve from the left service court when the serving side has scored an odd number of points in that game.

- Serving pattern in double
 - In any game, the right to serve shall pass consecutively:
 - from the initial server who started the game from the right service court
 - to the partner of the initial receiver. The service shall be delivered from the left service court.
 - to the player of the initial serving side standing in the service court corresponding to that side's score.
 - to the player of the initial receiving side standing in the service court corresponding to that side's score and so on.

- Receiving in double
 - Only the receiver shall return the service: should the shuttle touch or be hit by the receiver's partner, it shall be a 'fault' and the serving side shall score a point.
 - The players from the receiving side shall not change their respective service courts until they win a point on their service.

- Scoring and serving:
 - If the receiver makes a 'fault' or the shuttle ceases to be in play because it touches the surface of the court inside the receiver's court, the server shall score a point. The server then shall serve again from the alternate service court.
 - If the server makes a 'fault' or the shuttle ceases to be in play because it touches the surface of the court inside the server's court, the receiver shall score a point. The server shall lose the right to continue serving and the receiver then shall become the server.

- Instant Review System (Hawk-Eye system) and Challenge
 - The shuttle's speed of professional players can be as fast as more than 300 km/h.
 - The referee may make mistakes when using the naked eye to judge.
 - Since 2013, the "Hawk-Eye" system has been added to assist the referees in the international competitions held by the BWF.
 - A player/ Pair may challenge a Line Judge's call.
 - A player / Pair may make an unlimited number of challenges until there is a maximum of two failed challenges duration of each game of the match.

- Resting intervals
 - not exceeding 60 seconds during each game when a side first scores 11 points
 - not exceeding 120 seconds between the first and second game, and between the second and third game shall be allowed in all matches.

References :

➤ Book

黃岩 (2020)	羽毛球運動身體訓練指南	人民郵電出版社
舛田圭太(2018)	日本國家代表隊教練舛田圭太的羽球基本技術全解析	台灣東販股份有限公司
大屋貴司(2018)	羽毛球基礎技巧&戰術	楓葉社文化事業有限公司
刘瑞豪(2008)	羽毛球基礎與實戰技巧	成都時代出版社
王悅譯 (2005)	羽毛球教學	北京体育大學出版社
課程發展署(1994)	中學體育科教學資料(第二版)	香港教育署,課程發展署

➤ Web page

www.hkbadmintonassn.org.hk (Hong Kong Badminton Association Ltd.)

www.bwfbadminton.com (Badminton World Federation)

www.pe-web.org (Teaching materials - Badminton)

www.bfusc.bjtu.edu.cn (Badminton Branch of Federation university sports of China)

<https://bwfbadminton.com/news-single/2019/05/13/airbadminton-the-new-outdoor-game>(Airbadminton)