## Table tennis

Sport \& Tourism

## ASSIGN B USTER

Table Tennis Table tennis, also known as ping-pong, is a sport in which two or four players hit a lightweight, hollow ball back and forth using table tennis rackets. The game takes place on a hard table divided by a net. Except for the initial serve, players must allow a ball played toward them only one bounce on their side of the table and must return it so that it bounces on the opposite side. Points are scored when a player fails to return the ball within the rules. Play is fast and demands quick reactions.

A skilled player can impart several varieties of spinto the ball, altering its trajectory and limiting an opponent's options to great advantage. Table tennis is governed by the worldwide organization International Table Tennis Federation (ITTF), founded in 1926. ITTF currently includes 217 member associations. The table tennis official rules are specified in the ITTF handbook. Since 1988, table tennis has been an Olympic sport with several event categories. In particular, from 1988 until 2004, these were: men's singles, women's singles, men's doubles and women's doubles.

Since 2008 a team event has been played instead of the doubles. In 2007, the governance for table tennis for persons with a disability was transferred from the International Paralympic Committee to the ITTF. History The game originated as a sport in England during the 1880s, where it was played among the upper-class as an after-dinner parlour game. It has been suggested that the game was first developed by British military officers in India or South Africa who brought it back with them.

A row of books were stood up along the center of the table as a net, two more books served as rackets and were used to continuously hit a golf-ball from one end of the table to the other. Alternatively table tennis was played
with paddles made of cigar box lids and balls made of champagne corks. The popularity of the game led game manufacturers to sell the equipment commercially. Early rackets were often pieces of parchment stretched upon a frame, and the sound generated in play gave the game its first nicknames of " wiff-waff" and " ping-pong".

A number of sources indicate that the game was first brought to the attention of Hamley's of Regent Street under the name " Gossima". The name " ping-pong" was in wide use before British manufacturer J. Jaques \& Son Ltd trademarked it in 1901. The name " ping-pong" then came to be used for the game played by the rather expensive Jaques's equipment, with other manufacturers calling it table tennis. A similar situation arose in the United States, where Jaques sold the rights to the " ping-pong" name to Parker Brothers.

The next major innovation was by James W Gibb, a British enthusiast of table tennis, who discovered novelty celluloid balls on a trip to the US in 1901 and found them to be ideal for the game. This was followed by E. C. Goode who, in 1901, invented the modern version of the racket by fixing a sheet of pimpled, or stippled, rubber to the wooden blade. Table tennis was growing in popularity by 1901 to the extent that table tennis tournaments were being organized, books on table tennis were being written,[8] and an unofficial world championship was held in 1902.

During the early 1900s, the game was banned in Russia because the rulers at the time believed that playing the game had an adverse effect on players' eyesight. In 1921, the Table Tennis Association was founded in Britain, and the International Table Tennis Federation followed in 1926. [5][10] London
hosted the first official World Championships in 1926. In 1933, the United States Table Tennis Association, now called USA Table Tennis, was formed. In the 1950s, rackets that used a rubber sheet combined with an underlying sponge layer changed the game dramatically, introducing greater spin and speed.

These were introduced to Britain by sports goods manufacturer S. W. Hancock Ltd. The use of speed glue increased the spin and speed even further, resulting in changes to the equipment to " slow the game down". Table tennis was introduced as an Olympic sport at the Olympics in 1988. After the 2000 Summer Olympics in Sydney, the International Table Tennis Federation instituted several rules changes aimed at making table tennis more viable as a televised spectator sport. First, the older 38 mm balls were officially replaced by 40 mm balls in 2000.

This increased the ball's air resistance and effectively slowed down the game. By that time, players had begun increasing the thickness of the fast sponge layer on their rackets, which made the game excessively fast and difficult to watch on television. Second, the ITTF changed from a 21-point to an 11-point scoring system in 2001. This was intended to make games more fast-paced and exciting. The ITTF also changed the rules on service to prevent a player from hiding the ball during service, in order to increase the average length of rallies and to reduce the server's advantage.

Variants of the sport have recently emerged. " Large-ball" table tennis uses a 44 mm ball, which slows down the game significantly. This has seen some acceptance by players who have a hard time with the extreme spins and speeds of the 40 mm game. There is a move towards reviving the table
tennis game that existed prior to the introduction of sponge rubber. " Hardbat" table tennis players reject the speed and spin of reversed sponge rubber, preferring the 1940-60s play style with no sponge and short-pimpled rubber. Defense is less difficult by decreasing the speed and eliminating any meaningful magnus effect of spin.

Because hardbat killer shots are almost impossible to hit against a skilled player, hardbat matches focus on the strategic side of table tennis, requiring skillful maneuvering of the opponent before an attack can become successful. Equipment's Ball The international rules specify that the game is played with a light 2.7 gram, 40 mm diameter ball. [16] The rules say that the ball shall bounce up $24-26 \mathrm{~cm}$ when dropped from a height of 30.5 cm on to a standard steel block thereby having a coefficient of restitution of 0 . 89 to 0. 92. The 40 mm ball was introduced after the 2000 Olympic Games.

However, this created some controversy as the Chinese National Team argued that this was merely to give non-Chinese players a better chance of winning since the new type of balls has a slower speed, while at that time most Chinese players were playing with fast attack and smashes. A 40 mm table tennis ball is slower and spins less than the original 38 mm (1.5 inch) one. The ball is made of a high-bouncing air-filled celluloid or similar plastics material, colored white or orange, with a matte finish. The choice of ball color is made according to the table color and its surroundings.

For example, a white ball is easier to see on a green or blue table than it is on a gray table. Stars on the ball indicate the quality of the ball. Three stars indicate that it is of the highest quality, and is used in official competition. Table The table is $2.74 \mathrm{~m}(9 \mathrm{ft})$ long, $1.52 \mathrm{~m}(5 \mathrm{ft})$ wide, and 76 cm (30
inch) high with a Masonite (a type of hardboard) or similarly manufactured timber, layered with a smooth, low-friction coating. The table or playing surface is divided into two halves by a 15.25 cm ( 6 inch) high net.

An ITTF approved table surface must be in a green or blue color. Concrete tables with a steel net are sometimes available in public parks. Racket Players are equipped with a laminated wooden racket covered with rubber on one or two sides depending on the grip of the player. The official ITTF term is " racket", though " bat" is common in Britain, and " paddle" in the $U$. S. The wooden portion of the racket, often referred to as the " blade", commonly features anywhere between one and seven plies of wood, though cork, glass fiber, carbon fiber, aluminum fiber, and Kevlar are sometimes used.

According to the ITTF regulations, at least $85 \%$ of the blade by thickness shall be of natural wood. Common wood types include Balsa, Limba, and Cypress or " Hinoki," which is popular in Japan. The average size of the blade is about 6. 5 inches ( 16.5 cm ) long and 6 inches ( 15 cm ) wide. Although the official restrictions only focus on the flatness and rigidness of the blade itself, these dimensions are optimal for most play styles. Table tennis regulations allow different surfaces on each side of the racket.

Various types of surfaces provide various levels of spin or speed, and in some cases they nullify spin. For example, a player may have a rubber that provides much spin on one side of his racket, and one that provides no spin on the other. By flipping the racket in play, different types of returns are possible. To help a player distinguish between the rubber used by his opposing player, international rules specify that one side must be red while
the other side must be black. The player has the right to inspect his opponent's racket before a match to see the type of rubber used and what color it is.

Despite high speed play and rapid exchanges, a player can see clearly what side of the racket was used to hit the ball. Current rules state that, unless damaged in play, the racket cannot be exchanged for another racket at any time during a match. Rules Starting a game According to ITTF rule 2. 13. 1, the first service is decided by lot, normally a coin toss. It is also common for one player (or the umpire/scorer) to hide the ball in one or the other hand (usually hidden under the table), allowing the other player to guess which hand the ball is in.

The correct or incorrect guess gives the " winner" the option to choose to serve, receive, or to choose which side of the table to use. (A common but non-sanctioned method is for the players to play the ball back and forth four times and then play out the point. This is commonly referred to as "play to serve" or " rally to serve". ) Service and return In game play, the player serving the ball commences a play. The server first stands with the ball held on the open palm of the hand not carrying the racket, called the freehand, and tosses the ball directly upward without spin, at least 16 centimeters (approximately 6 inches) high.

The server strikes the ball with the racket on the ball's descent so that it touches first his court and then touches directly the receiver's court without touching the net assembly. In casual games, many players do not toss the ball upward; however, this is technically illegal and can give the serving player an unfair advantage. The ball must remain behind the endline and
above the upper surface of the table, known as the playing surface, at all times during the service. The server cannot use his body or clothing to obstruct sight of the ball; the opponent and the umpire must have a clear view of the ball at all times.

If the umpire is doubtful of the legality of a service they may first interrupt play and give a warning to the server. If the serve is a clearfailureor is doubted again by the umpire after the warning, receiver scores a point. If the service is " good", then the receiver must make a " good" return by hitting the ball back before it bounces a second time on receiver's side of the table so that the ball passes the net and touches the opponent's court, either directly or after touching the net assembly.

Thereafter, the server and receiver must alternately make a return until the rally is over. Returning the serve is one of the most difficult parts of the game, as the server's first move is often the least predictable and thus most advantageous shot due to the numerous spin and speed choices at his or her disposal. Let $A$ let is a rally of which the result is not scored, and is called in the following circumstances: The ball touches the net in service, provided the service is otherwise correct or the ball is obstructed by the player on the receiving side.

Obstruction means a player touches the ball when it is above or traveling towards the playing surface, not having touched the player's court since last being struck by the player. When the player on the receiving side is not ready and the service is delivered. Player's failure to make a service or a return or to comply with the Laws is due to a disturbance outside the control of the player. Play is interrupted by the umpire or assistant umpire. When
time is an issue, some competitions only count a let if a player has over 10 points. If they have less, it counts as a fair shot. This can significantly increase the pace of game.

Scoring A point is scored by the player for any of several results of the rally: Opponent fails to make a correct service or return. After making a service or a return, the ball touches anything other than the net assembly before being struck by the opponent. The ball passes over the player's court or beyond his end line without touching his court, after being struck by the opponent. The opponent obstructs the ball. The opponent strikes the ball twice successively. Note that the hand that is holding the racket counts as part of the racket and that making a good return off one's hand or fingers is allowed.

It is not a fault if the ball accidentally hits one's hand or fingers and then subsequently hits the racket. The opponent strikes the ball with a side of the racket blade whose surface is not covered with rubber. The opponent moves the playing surface or touches the net assembly. The opponent's free hand touches the playing surface. As a receiver under the expedite system, completing 13 returns in a rally. The opponent has been warned by umpire commits a second offense in the same individual match or team match.

If the third offence happens, 2 points will be given to the player. If the individual match or the team match has not ended, any unused penalty points can be transferred to the next game of that match. A game shall be won by the player first scoring 11 points unless both players score 10 points, when the game shall be won by the first player subsequently gaining a lead of 2 points. A match shall consist of the best of any odd number of games. In
competition play, matches are typically best of five or seven games. Alternation of services and ends

Service alternates between opponents every two points (regardless of winner of the rally) until the end of the game, unless both players score 10 points or the expedite system is operated, when the sequences of serving and receiving stay the same but each player serves for only 1 point in turn. Player serving first in a game shall receive first in the next game of the match. After each game, players switch sides of the table. In the last possible game of a match, for example the seventh game in a best of seven matches, players change ends when the first player scores 5 points, regardless of whose turn it is to serve.

If the sequence of serving and receiving is out of turn or the ends is not changed, points scored in the wrong situation are still calculated and the game shall be resumed with the order at the score that has been reached. Doubles game Service zone in doubles game In addition to games between individual players, pairs may also play table tennis. In doubles, all the rules of single play are applied except for the following. A line painted along the long axis of the table to create doubles courts bisects the table.

This line's only purpose is to facilitate the doubles service rule, which is that service, must originate from the right hand " box" in such a way that the first bounce of the serve bounces once in said right hand box and then must bounce at least once in the opponent side's right hand box (far left box for server), or the receiving pair score a point. Players must alternate hitting the ball. For example, if $A$ is paired with $B, X$ is paired with $Y, A$ is the server and
$X$ is the receiver. The order of play shall be $A>X>B>Y$. The rally proceeds this way until one side fails to make a legal return and the other side scores.

At each change of service, the previous receiver shall become the server and the partner of the previous server shall become the receiver. For example, if the previous order of play is $A>X>B>Y$, the order becomes $X>B>Y>$ A after the change of service. In each game of a doubles match, the pair having the right to serve first shall choose which of them will do so. The receiving pair, however, can only choose in the first game of the match. When the first server is chosen in the second or the latter games of the match, the first receiver of the game is the player who served to the first server of the game in the preceding game.

For example, if the order of play is $A>X>B>Y$ at beginning of the first game, the order begins with $X>A>Y>B$ or $Y>B>X>A$ in the second game depending on either $X$ or $Y$ being chosen as the first server of the game. When a pair reaches 5 points in the final game, the pairs must switch ends of the table and the team that receives the service must switch receiver. For example, when the last order of play before a pair score 5 points in the final game is $A>X>B>Y$, the order after change shall be $A>$ $Y>B>X$ if $A$ still has the second serve.

Otherwise, X is the next server and the order becomes $\mathrm{X}>\mathrm{A}>\mathrm{Y}>\mathrm{B}$. Singles and doubles are both played in international competition, including the Olympic Games since 1988 and the Commonwealth Games since 2002. In 2005, the ITTF announced that doubles table tennis only was featured as a part of team events in the 2008 Olympics. Expedite system If a game is unfinished after 10 minutes' play and fewer than 18 points have been
scored, the expedite system is initiated. The umpire interrupts the game, and the game resumes with players serving for 1 point in turn.

If the expedite system is introduced while the ball is not in play, the previous receiver shall serve first. Under the expedite system, the server must win the point before the opponent makes 13 consecutive returns or the point goes to the opponent. The system can also be initiated at any time at the request of both players /or pairs. Once introduced, the expedite system remains in force until the end of the match. A rule to shorten the time of a match, it is mainly seen in defensive players' games.

