## Tennis

## Racquets

The tennis racquet comprises a handle and neck joining a roughly circular frame that holds an array of tightly pulled strings.

## Balls

Tennis balls are of hollow rubber with a felt coating. Traditionally white, the predominant color was gradually changed to Optic Yellow in the latter part of the twentieth century to allow for improved visibility.

## Manner of play

## Court



Tennis is played on a rectangular, flat surface, usually grass, clay, a hardcourt of concrete and/or asphalt and occasionally carpet (indoor). The court is 23.77 m long, and its width is 8.23 m for singles matches and 10.97 m for doubles matches. Additional clear space around the court is required in order for players to reach overrun balls. A net is stretched across the full width of the court, parallel with the baselines, dividing it into two equal ends. The net is 1.07 m high at the posts and 91.4 cm high in the center.

## Lines

The lines that delineate the court are called the baseline and the service line. The short mark in the center of each baseline is referred to as either the hash mark or the center mark. The outermost lines that make up the length are called the doubles sidelines. These are the boundaries used when doubles is being played. The lines to the inside of the doubles sidelines are the singles sidelines and are used as boundaries in singles play. A ball is out only if none of it has hit the line or the area inside the lines upon its first bounce.

## Play of a single point

The players (or teams) start on opposite sides of the net. One player is designated the server, and the opposing player, or in doubles one of the opposing players, is the receiver. Service alternates between the two halves of the court. For each point, the server starts behind his baseline, between the center mark and the sideline. The receiver may start anywhere on their side of the net.

In a legal service, the ball travels over the net (without touching it) and into the diagonally opposite service box. If the ball hits the net but lands in the service box, this is a let or net service, which is void, and the server gets to retake that serve. The player can serve any number of let services in a point and they are always treated as voids and not as faults. A fault is a serve that is long, wide, or not over the net. There is also a "foot fault", which occurs when a player's foot touches the baseline or an extension of the center mark before the ball is hit. If the second service is also faulty, this is a double fault, and the receiver wins the point. However, if the serve is in, it is considered a legal service.

## Scoring

A tennis match is determined through the best of 3 or 5 sets. Typically for both men's and women's matches, the first player to win two sets wins the match. At certain important tennis tournaments for men, including all four Grand Slam tournaments and the final of the Olympic Games, the first man to win three sets wins the match. A set consists of games, and games, in turn, consist of points.

A game consists of a sequence of points played with the same player serving. A game is won by the first player to have won at least four points in total and at least two points more than the opponent. The running score of each game is described in a manner peculiar to tennis: scores from zero to three points are described as "love", "fifteen", "thirty", and "forty" respectively. If at least three points have been scored by each player, and the scores are equal, the score is "deuce". If at least three points have been scored by each side and a player has one more point than his opponent, the score of the game is "advantage" for the player in the lead.

In tournament play, the chair umpire calls the point count (e.g., "fifteen-love") after each point. The score of a tennis match during play is always read with the serving player's score first. After a match, the score is always read with the winning player's score first. At the end of a game, the chair umpire also announces the winner of the game and the overall score.

A game point occurs in tennis whenever the player who is in the lead in the game needs only one more point to win the game. The terminology is extended to sets (set point), matches (match point), and even championships (championship point). For example, if the player who is serving has a score of 40 -love, the player has a triple game point (triple set point, etc.) as the player has three consecutive chances to win the game.

A break point occurs if the receiver, not the server, has a game point. Break points are of particular importance because serving is generally advantageous.

A set consists of a sequence of games played with service alternating between games, ending when the count of games won meets certain criteria. Typically, a player wins a set by winning at least six games and at least two games more than the opponent. If one player has won six games and the opponent five, an additional game is played. If the leading player wins that game, the player wins the set $7-5$. If the trailing player wins the game, a tie-break is played. A tie-break, played under a separate set of rules, allows one player to win one more game and thus the set, to give a final set score of 7-6. Only in the final sets of matches at the Australian Open, the French Open, Wimbledon, the Olympic Games, Davis Cup, and Fed Cup are tie-breaks not played. In these cases, sets are played indefinitely until one player has a two-game lead.

In tournament play, the chair umpire announces the end of the match with the wellknown phrase "Game, set, match" followed by the winning person's or team's name.

## Surface

There are four main types of courts depending on the materials used for the court surface: clay courts, hard courts, grass courts and carpet courts

## Clay courts

Clay courts are made of crushed shale, stone, or brick. The French Open uses clay courts, Clay courts slow down the ball and produce a high bounce when compared to grass courts or hard courts.

## Grass courts

Grass courts are the fastest type of courts in common use. They consist of grass grown on very hard-packed soil, which adds additional variables: bounces depend on how healthy the grass is, how recently it has been mown, and the wear and tear of recent play. Points are usually very quick. The surface is less firm and more slippery than hard courts, causing the ball to slide and bounce lower

In 2001, Wimbledon organizers had changed the grass to $100 \%$ perennial rye in addition to changing to a harder and denser soil with both providing for a higher bounce to the ball.

## Hard courts

Hard courts are made of uniform rigid material, offering greater consistency of bounce than other outdoor surfaces. Hard courts can vary in speed, although they are faster than clay but not as fast as grass courts. The quantity of sand added to the paint can greatly affect the rate at which the ball slows down.

## Carpet courts

Carpet is a tennis term for any removable court covering.

## Shots

A competent tennis player has eight basic shots in his or her repertoire: the serve, forehand, backhand, volley, half-volley, overhead smash, drop shot, and lob.

## Serve

A serve (or, more formally, a "service") in tennis is a shot to start a point. The serve is initiated by tossing the ball into the air and hitting it (usually near the apex of its trajectory) into the diagonally opposite service box without touching the net.

## Forehand

For a right-handed player, the forehand is a stroke that begins on the right side of the body, continues across the body as contact is made with the ball, and ends on the left side of the body use a two-handed forehand.

## Backhand

For right-handed players, the backhand is a stroke that begins on the left side of their body, continues across their body as contact is made with the ball, and ends on the right side of their body. It can be executed with either one hand or with both and is generally considered more difficult to master than the forehand.

## Other shots

A volley is made in the air before the ball bounces, generally near the net, and is usually made with a stiff-wristed punching motion to hit the ball into an open area of the opponent's court. From a poor defensive position on the baseline, the lob can be used as either an offensive or defensive weapon, hitting the ball high and deep into the opponent's court to either enable the lobber to get into better defensive position or to win the point outright by hitting it over the opponent's head. If the lob is not hit deeply enough into the other court, however, the opponent may then hit an overhead smash, a hard, serve-like shot, to try to end the point. Finally, if an opponent is deep in his court, a player may suddenly employ an unexpected drop shot, softly tapping the ball just over the net so that the opponent is unable to run in fast enough to retrieve it.

