

# The Chinese University of Hong Kong Physical Education Unit

## Volleyball

### 1. History of the Game

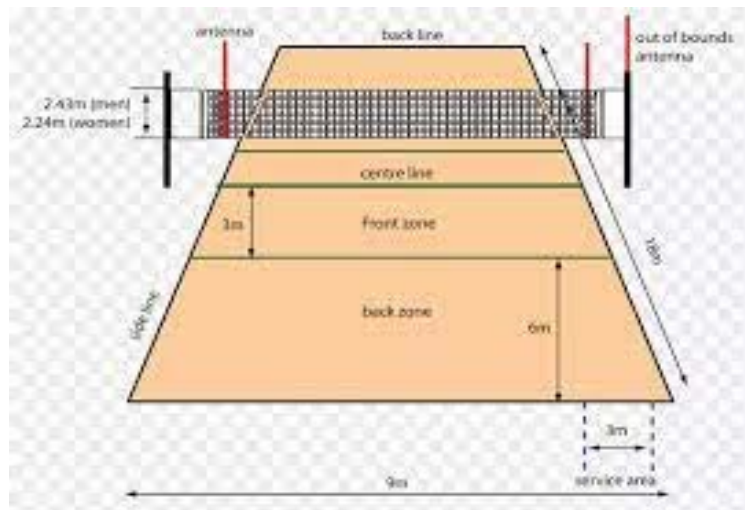
- 1895 Created by William G. Morgan, a YMCA physical education director in Holyoke, Massachusetts (USA)
- 1896 The first “five man” volleyball game  
Professor Alfred T. Halstead in Springfield suggested this sports to be called as “Volleyball”
- 1947 FIVB (Fédération Internationale de Volleyball), International Volleyball Federation was established
- 1951 Volleyball Association of Hong Kong was established
- 1954 Asian Volleyball Confederation (AVC) was established
- 1964 Introduced as one of the events in Tokyo Olympics

### Changing of Ball



### 2. Volleyball Court

<b>Court Area</b>	18 meters long and 9 meters wide. The free playing space shall measure a minimum of 12.5 m in height from the playing surface
<b>Court lines</b>	Attack line: A line which is 3 meters from and parallel to the center line in each team court
<b>Court region and area</b>	<u>Front row area:</u> Area between the center line and the attack line in each team court <u>Back row area:</u> Area between the attack line and the base line in each team court
<b>Net</b>	<b>2.43 meters</b> above the center of the court for MEN's competition, and <b>2.24 meters</b> for WOMEN's competition
<b>Net antennas</b>	A pair of net antennas tie-down in the net of both sides and vertical at the edges.



### 3. Outline of the Rules

Six players for each team, play across the net and try to hit the ball to the opposing team's court with or within 3 passes (except blocking).

#### (1) Set

- 5 sets (international) or 3 sets (interschool)
- The one first scores 25 point and leads at least 2 points will be considered as winging one set
- Deuce when the points are 24 (14 in deciding set) in for both teams. The competition continues until one team lead 2 points
- 15 points for deciding set

#### (2) Warm Up

- Teams will be entitled to a 10 minute warm up period together at the net. If either captain requests separate (consecutive) official warm-ups at the net, the teams are allowed 5 minutes each.

#### (3) Toss

- Toss is needed for the first set and the deciding set
- Winner of the toss can choose: To serve or to receive first or the court

#### (4) Time out

- 2 time outs for each team in each set, each time out lasts for 30 second

**(5) Position**

- At the moment that the server hit the ball, all the members in each team should be standing inside their court in two rows. Each row should be composed of 3 players
- Decided by the feet positions
- Once the ball is hit, players are free to move

**(6) Rotation**

- After a team gains the serve, its members must rotate in a **clockwise direction**

**(7) Substitution**

- At most **six times** of substitution can be called by each team in each set
- The starting player can leave and enter the court once. And he can only replace the player he substitutes.
- Replaced player can only enter the court once.

**(8) Serve**

- Serving player can serve in any position that within the service region
- service area means the area behind the end line but still within the theoretical extension of the sidelines
- Ball must be served within 8 seconds after the signal of the first judge
- No attempt serving is allowed

**(9) Ball contact**

- Ball contact is allowed for all the body parts including feet

**(10) Block**

- Ball contact during blocking is not counted as one touch
- Penetrate with one's arms and hands over the net and into the opponent's area during blocking is allowed but it cannot interfere the opposing team

**(11) Back row players**

- Attack should be done within the back row area for the back row players
- Attack can be done in the front row area, but the ball contact level must be lower than the top of the net

**(12) Errors and faults**

- The ball lands out of the court, in the same court as the team that touched it last, under the net to the opposing team's court, or the ball touches the net "antennas."
- Contact with the net by a player between the antennae, during the action of playing the ball, is a fault.
- A back-row player spikes the ball while it is completely above the top of the net, unless he or she jumped from behind the attack line (the player is, however, allowed to land in front of the attack line).
- The ball is touched more than three times before being returned to the other team's court.
- The same player touches the ball twice in succession.



- A player "lifts" or "carries" the ball (the ball remains in contact with the player's body for too long).
- A player's foot (feet) penetrates completely into the opponent's court.
- When serving, a player steps on the court or the end line before making contact with the ball.
- At the moment of serve, one or more players jump, raise their arms or stand together at the net in an attempt to block the sight of the ball from the opponent (screening).
- A player blocks the serve or attacks the serve when the ball is in the front zone and above the top of the net.
- When hitting, a player makes contact with the ball in the space above the opponent's court (in blocking an attack hit, this is allowed).
- A player is not in the correct position at the moment of serve, or serves out of turn.
- Ball that considered as **OUT**
  - Ball lands completely outside the lines
  - Ball touches any object that outside the court
  - Ball touches the net antennas

### (13) Number of players and jersey number

- Each team has max. **14** players and the players' jerseys must be numbered from **1 to 99** in FIVB or international Games.

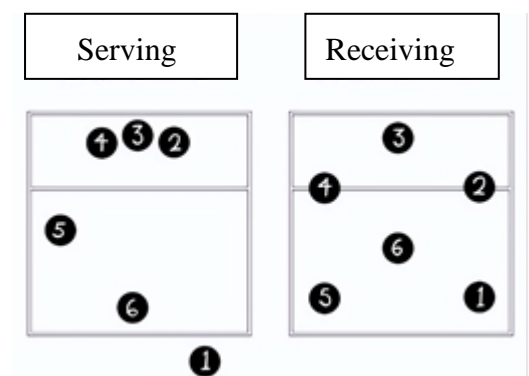


### (14) Appeal (VAR)

Each Team has two challenges in each set. The challenges must be made by the captain of the field to the first referee.

### (15) Player position

The court divides into 6 positions (see right picture). The front row is close to the net. From left to right, they are No. 4 (left), No. 3 (center), and No. 2 (right). The back row, from left to right, are No. 5 (left) and No. 6. Position No. 1 (middle) and Position 1 (right). Each round starts with the player in position 1 serving. When the server hits the ball, the players on both sides (except the server) must stand in the current rotation order within the court area. If a player is not in his correct position, it is a foul. After scoring, the positions of the six players need to rotate clockwise, 2 to 1, 1 to 6 and so on. In each round, the player in position 1 is responsible for serving.



## 4. Player specialization

There are generally six skills in volleyball - serving, receiving, passing, spiking, blocking, defense, etc., and usually based on the team's tactics, players mainly specialize in one or more of them. The positions on the modern volleyball court are divided into setter, libero, middle attacker, outside attacker and opposite hitters.

### (1) Setters

- Setters have the task for orchestrating the offense of the team.
- They aim for second touch and their main responsibility is to place the ball in the air where the attackers can place the ball into the opponents' court for a point.
- They have to be able to operate with the hitters, manage the tempo of their side of the court and choose the right attackers to set.
- Setters need to have swift & skillful appraisal, tactical accuracy, and must be quick at moving around the court.



### (2) The Libero

- The Libero is restricted to be the back row player and they cannot block or attack the ball when it is entirely above net height. not allowed to perform serving, blocking or attempt blocking.
- If she/he makes an overhand set, she/he must be standing behind (and not stepping on) the 3-meter line; otherwise, the ball cannot be attacked above the net in front of the 3-meter line.
- The replacement does not count against the substitution limit each team is allowed per set.
- Unlimited replacement. But between each replacement, there must be separated by one - there must be scored game.
- The libero may be replaced only by the player whom they replaced.
- Replacement can only be done on the sidelines region that is between the attack line and the end line.



### (3) Middle blockers or Middle hitters

- Middle blockers or Middle hitters are players that can perform very fast attacks that usually take place near the setter.
- They are specialized in blocking, since they must attempt to stop equally fast plays from their opponents and then quickly set up a double block at the sides of the court.
- In non-beginners play, every team will have two middle hitters.



### (4) Outside hitters (Left side hitters)



- Outside hitters or Left side hitters attack from near the left antenna.
- The outside hitter is usually the most consistent hitter on the team and gets the most sets.
- Inaccurate first passes usually result in a set



to the outside hitter rather than middle or opposite. Since most sets to the outside are high, the outside hitter may take a longer approach, always starting from outside the court sideline.

- In non-beginners play, there are again two outside hitters on every team in every match.

##### (5) **Opposite hitters (Right side hitters)**

- Opposite hitters or Right side hitters carry the defensive workload for a volleyball team in the front row.
- Their primary responsibilities are to put up a well-formed block against the opponents Outside Hitters and serve as a backup setter. Setter's opposite usually goes to the right side of the antennae.



## 5. Skills

### (1) **Underhand Serve**

**Preparation** Shoulders parallel to the net. Feet separated with left foot in front (right hand player). Knee bent, upper body slightly forward, center of gravity moves backward, holds ball with left hand.

**Execution** With one hand, toss ball close to body ahead of hitting shoulder (20cm).

**Ball Contact** Contact center of ball with heel of open hand contact with arm at full extension. Transfer weight onto front foot. During ball contact at waist position, hands tensed. Follow through to target. Move onto court to play defense.

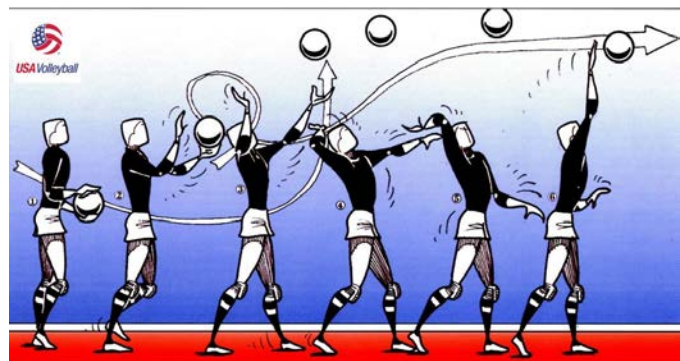


### (2) **Overhand Serve**

**Preparation** Shoulders square to the net. Feet separated with left foot in front (right hand player). Knee bent, holds ball with left hand

**Execution** With one hand, toss ball close to body ahead of hitting shoulder with suitable height

**Ball Contact** Bring arm back with elbow high and hand close to ear. Contact center of ball with heel of open hand. Contact with arm at full extension. Transfer weight onto front foot. Follow through to target. Move onto court to play defense.



### (3) **Underhand Pass**

**Preparation** Move to the ball landing position. Knee bends slightly.

**Hands** Interlock fingers. Press heels of hands together, thumbs parallel and touching. Roll the forearms out and lock the elbows.



*Ball contact* Strike ball with short arm swing, a poking motion. Angle arm platform toward your target and hit the lower rear part of the ball. Weight transfers from back to front.

*Ball contact point* Should be kept right in front of the abdomen.

*Arms Angle* Based on the reflection principle, arm angle should be adjusted according to the target angle, direction and locus of the ball

#### (4) Overhead Pass



*Preparation* Feet are in a comfortable stride position. Body moves to ball and squares to target. Arms and legs are slightly bent. Hands are positioned about 6-8 inches above the forehead.

*Hand* Hands mold to ball. Index fingers and thumbs form a triangle and look at the coming ball throw the triangle. Upper two joints of fingers and thumbs contact ball's lower back.

*Execution* Arms and legs extend target. Transfer weight toward target. Use wrists and fingers to buffer and control the ball.

#### (5) Block

*Block preparation* Wait close to net. Watch opposing setter. Keep hands at shoulder level, palms out, fingers spread. After set, focus on opposing attacker.

*Move* Adjust position to face the attack.

*Jump* Knee bent. Jump perpendicularly to the floor.

*Ball contact* Extend arms above top of the net. Reach across net into opponents' court. Arms extended.

*Landing* Bend the knees to cushion landing. Turn and find ball.



#### (6) Attack

*Spike Preparation* Wait on attack line. Watch setter with weight forward. Anticipate approach to net

*Approach Begin* approach to net when ball reaches its peak

*Take off* Finish approach with either a hop or a heel plant with one foot and a close with the other. Swing arms back to waist height. Swing arms forward and high. Right / Left hand attacker's footstep is left-right-left / right-left-right

*Ball Contact* Contact ball above and in front of hitting shoulder. Contact with heel of open hand.

Contact center back of ball. Contact with full arm extension. Snap wrist forward with force.

*Landing* Land on both feet. Sag into landing



## (7) Ball Receive

1. Preparation position: face the direction of the incoming ball, stand with your feet wider than shoulder width, one foot in front, lift your heels, and place your front feet on the balls of your feet, bend your knees and slightly adduct, tilt your center of gravity slightly forward, and place your arms naturally bent in front of your waist position.
2. Hand shape, hitting point and ball-touching position: When the ball is close to the front of the waist position, the hands overlap, the heels of the palms are close, and the palms are clasped together. The two thumbs are parallel and facing forward, the arms are straight, the wrists are pressed down, and the forearms are externally rotated to form a ball. The part of the cheek close to the wrist hits the back and lower part.



## 6. Formations

The standard volleyball formations are known as "4-2" and "5-1", which refers to the number of hitters and setters respectively. 4-2 is a basic formation used only in beginners' play, while 5-1 is by far the most common formation in high-level play.

### (1) 4-2 Formation (2 setters)

OH	MD	Setter
Setter	MD	OH

The 4-2 formation has four hitters and two setters. The setters usually set from the middle front or right front position. The team will therefore have two front-row attackers at all times. In the international 4-2, the setters set from the right front position. The international 4-2 translates more easily into other form of offense.

The setters line up opposite each other in the rotation. The typical lineup has two outside hitters. By aligning like positions opposite themselves in the rotation, there will always be one of each position in the front and back rows. After service, the players in the front row move into their assigned positions, so that the setter is always in middle front. Alternatively, the setter moves into the right front and has both a middle and an outside attacker; the disadvantage here lies in the lack of an offside hitter, allowing one of the other team's blockers to "cheat in" on a middle block.

### (2) 5-1 Formation (1 setter)

Opposite	MD	OH
OH	MD	Setter

The 5-1 formation has only one player who assumes setting responsibilities regardless of his or her position in the rotation. The team will therefore have three front-row attackers when the setter is in the back row, and only two when the setter is in the front row, for a total of five.

The player opposite the setter in a 5-1 rotation is called the opposite hitter. In general, opposite hitters do not pass; they stand behind their teammates when the opponent is serving. The opposite hitter may be used as a third attack option (back-row attack) when the setter is in the front row: this is the normal option used to increase the attack capabilities of modern volleyball teams. Normally the opposite hitter is the most technical skilled hitter of the team. Back-row



attacks generally come from the back-right position (position 1), but are increasingly performed from back-center in high-level play.

## 7. Offensive Formation

### (1) “Center Forward Setter” Offensive Formation

The setter stands in the middle of the front row to receive the bump from a teammate. Setting from the middle of the front row allows for an attack (dink or spike) to be played from either sideline (by the Left Forward and Right Forward). It is good for beginner.

### (2) “Right Forward Setter” Offensive Formation

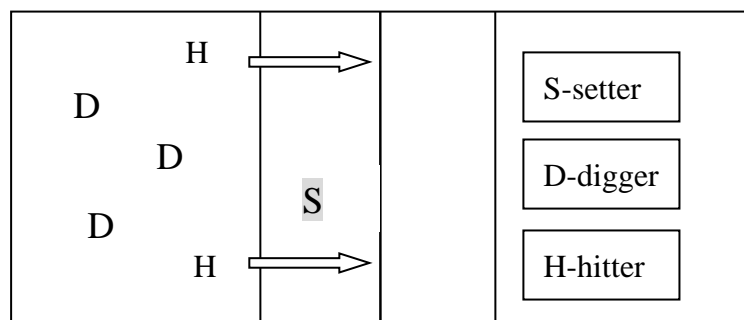
The setter stands in the right of the front row to receive the bump from a teammate. Setting from the right of the front row allows for an attack (dink or spike) to be played from either sideline or middle. It is suitable for advanced level.

## 8. Defensive Formation

### (1) “W” Receiving Serve Formation

By using “Center Forward Setter” or “Right Forward Setter” Offensive Formation, when we are receiving the service, we can use ‘1-3-2’ formation.

The ‘W’ formation with no blocker is a defense for beginners who do not know how to spike. Usually, the player in the middle of the front court is the setter.



## 9. Beach volleyball

Beach volleyball is played outdoors on natural beaches or artificial sand pits. The rules are similar to volleyball, but each side only has two people on the court.

Beach volleyball differs from formal volleyball in the following ways:

- two players per side
- the pitch is small (sides are 8m x 8m)
- a block counts as an attack
- open five-finger lobbs are not allowed



Competition Format: Beach volleyball matches adopt a best-of-three-set system. The first and second rounds are set to a twenty-one-point system, and the third round is set to a fifteen-point system. The first to score twenty-one points (fifteen points in the third game) and lead the opponent by two points wins.

## Useful web sites :

<https://zh.wikipedia.org/wiki/%E6%8E%92%E7%90%83>

(Wikipedia-Volleyball) (2024)

[file:///C:/Users/admin/Downloads/FIVB-Volleyball\\_Rules2021\\_2024-EN-v01e.pdf](file:///C:/Users/admin/Downloads/FIVB-Volleyball_Rules2021_2024-EN-v01e.pdf)

(Official Rules English Version) (2024)

[http://www.fivb.org/EN/Refereeing-Rules/Documents/FIVB\\_Volleyball\\_Hand\\_Signal\\_Poster\\_2015-2016.pdf](http://www.fivb.org/EN/Refereeing-Rules/Documents/FIVB_Volleyball_Hand_Signal_Poster_2015-2016.pdf) (Referee's Hand Signal) (2024)

[https://baike.baidu.hk/item/%E6%8E%92%E7%90%83/33349#reference-\[8\]-0-wrap](https://baike.baidu.hk/item/%E6%8E%92%E7%90%83/33349#reference-[8]-0-wrap) (百科) (2024)

<https://zh.wikipedia.org/wiki/%E6%B2%99%E6%BB%A9%E6%8E%92%E7%90%83> (沙灘排球) (2024)

## Volleyball Associations :

**Fédération Internationale de Volleyball (FIVB)**



<http://www.fivb.org/>

**Volleyball Association of Hong Kong, China**



<http://www.vbahk.org.hk/>

**The Asian Volleyball Confederation (AVC)**



<https://asianvolleyball.net/new/>

**香港大專體育協會**



<https://www.usfhk.org/cate-detail.php?lang=tc>

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13. 田珊(2006), 排球, 科圖有限公司出版
14. 陳亞麟, 王維明(2005), 排球, 陝西人民出版社