

# BLIND TENNIS MANUAL

## Tennis for the blind and partially sighted

I started teaching tennis to blind and partially sighted children to give them the opportunity to experience the following:

- Freedom of movement
- Independence
- Health benefits of sport
- The friendships associated with playing sports
- The enjoyment of running, swinging and hitting balls



Playing Blind Tennis in a three dimensional mode (bouncing rather than rolling balls) is very possible.

All it needs is resolve and patience from both the student and the coach.

I hope you will find this introductory guide to teaching Blind Tennis helpful.



**Ayako Matsui**

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Teacher for special needs education  
Short tennis certified coach



# Introduction to Blind Tennis

- The idea of Blind Tennis started in 1984. It was born out of Miyoshi Takei's, a blind student, wish to play tennis with fully able-bodied people.
- The invention of a special ball that makes a distinct sound when it is hit and bounces, has made tennis for the blind reality.
- The rules are essentially the same as normal tennis except for shorter rackets, smaller courts, more bounces allowed, and that players have to say "Ready?" and "Yes" before they start playing each point.
- Blind Tennis in its present form started in Japan in 1990.
- The hope of Miyoshi Takei was that blind tennis will eventually become a Paralympics event and will allow blind players to travel internationally and broaden their freedom.
- Blind Tennis will hopefully further promote the integration of those with visual disabilities into the fully abled community and break down the barriers of discrimination.

# Skills for students

**SAFETY FIRST:** It is essential to create an environment / space in which the blind student can run freely without worry of falling or bumping into somebody / something.

Tennis, unlike many other blind sports, is a good exercise for the visually impaired to keep fit and have a healthy life.

The following are some of the skills that a blind person will develop whilst learning to play tennis.

- **Spatial awareness** (the ability of the student to move towards the sound of an oncoming ball and recovering back to the court's centre position) is fundamental.
- **Tactile skills** are also important. The player will need to touch the lines to check his/her position around the court. These skills develop a blind person's orientation and mobility which are essential for their every-day lives. Learning these skills through a sport like tennis accelerates the process and makes it enjoyable.
- There are **three important elements** essential to hitting a ball. They are Spatial Awareness (awareness of where the player is in relation to the court ,ball & net ) (the position of the ball in three dimensions, right or left, forward or backward, high or low), Technique (appropriate form & coordination to effectively hit forehands and backhands) and Timing (the ability to time when to start the swing according to how close the ball is to the hitting zone) . ( professor Sato from Senshu University)
- **Physical coordination skills** also have to be developed as the player will be called upon to move his whole body in order to play tennis.
- **Independence:** unlike team sports, a tennis player needs to be able to make decisions for themselves in the heat of a match. It will develop a blind person's self-confidence and independence.
- **Social Skills:** Blind players will meet a lot of people and improve their communication skills.
- **Understanding:** Blind tennis players are able to play & compete with the able-bodied. It allows both groups to mix, socialize and exchange the joys and challenges of their sport and lives. Furthermore, blind children can share a sport with their parents, sisters, brothers and grand parents.
- **Rehabilitation:** Some visually impaired people have other disabilities. Tennis is a good sport for rehabilitation and recreation.

# Skills for coaches

- Instructors need to learn the psychological aspects of being blind and visually impaired.
- As visually impaired cannot reach their hands out to objects or follow the path of a moving object, they are entirely dependent on external help. Hence their lifestyles tend to be passive.
- To play blind tennis effectively, they will need to hit the ball very close to their bodies. It is therefore important to teach them to run towards a ball.
- Blind people are often completely dependent on others to guide them and describe what is in front of them. They therefore have gotten used to move cautiously and slowly. Blind Tennis reverses this process and they will need some time and help to adapt to this new freedom.
- For their safety, players who are waiting for their turn have to stay well away from the hitting area and court.
- Encourage them to always first check if anyone is close by before swinging a racket.
- They will learn by listening and feeling. Give them accurate feedback and let them feel a motion by guiding their hands and feet.
- It is particularly difficult for a blind person to change their body movement & technique after learning one thing, so you have to be very careful to teach good form.
- Movement is the most challenging part for blind tennis players because their joints are not flexible and Tennis requires smooth transitions. Particular emphasis on coordination is necessary by the coach.
- They do not understand terms such as “just missed” or “a little bit”. Give them specific and detailed information in details. “Ball in Net, one ball” “50cm, side-out”
- A good Warm-up and Cool-down is very important to prevent injuries, improve coordination, balance, loosen joints and as an aerobic exercise.
- Teach them not only technique but also sportsmanship, good manners, and fair play.
- The sound of the ball is important for Blind Tennis. Encourage spectators to remain quiet.

# History Story of Miyoshi Takei



Given the long history of tennis, Blind Tennis is a relatively new sport. It was originally created by Miyoshi Takei in 1984 in Kawagoe, Saitama prefecture, Japan. At the time, Miyoshi was a blind high school student at the Saitama School For The Blind & Visually Impaired and he had a dream to hit a tennis ball.

Visually impaired versions of various other sports such as volleyball, table tennis and baseball already existed at the time. But, in these ball games, a ball was rolled on the floor rather than bounced. This was not what Miyoshi was looking for. He wanted to play tennis in three dimensions with a ball bouncing. He went to see his physical education teacher and asked for advice. The teacher was interested in his idea and they started to experiment together at the gymnasium in Saitama school for the blind and the visually impaired.

The first and most important task was to make a special ball that would allow visually impaired players to locate its position by the sound it emitted as it bounced or was hit. At first, they tried to use a toy plastic ball, in which they put some lead balls. It rattled and the sound was good. But the height of the bounce was not appropriate. They continued to experiment with various other materials but it was proving very difficult to make the perfect Blind Tennis.

After graduating from school, Miyoshi entered a special education course in Tokyo to learn physiotherapy. He took his original ball to the Tokyo Sports Centre For The Disabled. He asked an instructor to play tennis with him. At first, the instructor was uncertain about Miyoshi's idea, but he was deeply moved by his enthusiasm. At that time, short tennis came from Sweden. A sponge ball is used for short tennis. One day a man who works for the wheelchair tennis association showed a sponge ball to Miyoshi. He had an idea of using a sponge ball. Then he went to a shop to find a ball, and he got a larger sponge ball.

He cut it in half and put a table tennis ball for the blind and visually impaired in the middle. It was very challenging for Miyoshi to make contact with the ball at first but it was also a huge step forward for three dimensional sports for the blind and visually impaired. With its sponge exterior and a rattling table tennis ball at its core the National Rehabilitation Centre For The Disabled (NRCT) in Tokorozawa in Saitama started a project to manufacture the special tennis ball for the blind and set the rules.

Miyoshi's dream was coming true. The visually impaired people, who were studying there, lent good advice. Furthermore, with the help of The Japanese Disabled Sport Association, a yet-unknown sport was about to be born. It was on the 21st of October in 1990 that Miyoshi's dream was realized at last. The first national tournament was held in NRCT. Miyoshi stood on the court feeling very excited and happy. He had accomplished his goal.

Japan is divided into 47 regions. Sound ball tennis is now played in over 30 of these regions. It is estimated that about 300 players are now enjoying it regularly. The racket, being short and light, everybody from infants to the elderly can play it. And best of all, both challenged and able-bodied can play Blind Tennis together, either as opponents or in a mixed-doubles format with visually impaired player partnering someone with normal eyesight. Our goal is to make Blind Tennis a Paralympics event and a sport which is played far and wide around the world.

# We lost our inventor.

Miyoshi Takei 1968-2011

- Mr. Takei passed away on the 16<sup>th</sup> of January, 2011. He fell from the platform of Mejiro station and was hit by a train. He was 42 years old.  
He wanted to go all over the world to spread blind tennis.  
He invented this sport and created a ball by himself.  
He was loved by many people and we all miss him.  
We have to work hard to accomplish his dream.  
His dream is that blind tennis will be played by both the disabled and the able bodied. And it will be played in the event of 2020 Paralympic games.



# Racket

- A shorter junior-sized racket is used for adults. The length of the racket should be  
B1 max 23 inches  
B2 B3 max 25 inches
- For small kids, 19 or 21 inch racket is recommended.
- As the racket is short and light, they are easy to handle, control and swing for all age groups.



# An Old Ball

- A special type of sponge ball is used. Being soft and light, it will not hurt if the ball strikes the body of a player. It also travels slower than normal tennis balls and allows more reaction time for the player.
- The ball is 9cm in diameter. In the middle of the ball, is a table tennis ball which contains four iron pellets. It produces a nice, audible sound when it bounces and allows a blind player to judge the approximate height, direction and speed of the incoming ball. Each ball is specially manufactured and costs 1000yen (just under US\$10)
- For the partially sighted, the color of the ball is important. The color will depend the level of their impairment as well as the color of the floor and background walls.
- The color of the ball can be varied with spray paint.
- The yellow ball is used for B1 visually impaired.
- Both yellow and black balls are used for B2, B3 and B4.  
The server has the choice. But once the game has started, they cannot change their choice.



The balls can break if hit too hard or stepped on. You can replace the broken table tennis ball with a new one.

One table tennis ball costs about 250 yen.

The old ball was used from 1990 to 2011.

After 20 years, we now have a new official ball from April, 2011.



# A New Ball

- This is an official ball from April 2011.
- A tape is not used, so it has less irregular. And you can hear the better sound. It is stronger and a little bit cheaper than the old one.
- Shoei Industry Co.,Ltd  
HILLCREST 7F 2-31-11  
HIGASHIMUKOJIMA SUMIDA-KU  
TOKYO JAPAN

If you would like to order, e-mail  
Shoei- Industy [bw@nifty.com](mailto:bw@nifty.com)

One ball costs 945 yen including the tax and the freight.

One box contains 12 balls.

If you buy more than 60 balls, one ball costs 900 yen.

If you buy more than 300 balls, one ball costs 845 yen.



# Racket skills



- Grip the racket like shaking hands (called the Continental Grip)
- Touch the strings with the other hand to check.
- Hold the racket in front of the body.
- Check that nobody is around before swinging the racket.
- Roll or bounce the ball on the racket.
- Bounce the ball with the racket.

# Ball Coordination - Progressions & Exercises

- Touch a ball.
- Throw up and bounce the ball.
- The coach throws a ball to the body to show that it doesn't hurt at all.
- Roll or throw a ball against the wall and catch it. Try to follow the ball if you miss catching it.
- Drop a ball and catch it after 3, 2 and 1 bounces. If you can not catch it, try to touch it.
- Listen to the different sound very carefully.

3 bounces: toon ton t

2 bounces: toon ton

Feel and remember the rhythm of the ball.

- The coach throws a ball and the player catches it. Gradually throw the ball from further away.

Good footwork makes it easier to catch the ball.

- Roll a ball, follow it and catch it.
- Throw a ball to a partner and catch it in return
- Finally throw & catch over the net in the court.

# Court / Spatial Awareness Exercises

- The full court dimensions are

B1 42ft. × 21ft. (12.80m×6.40m)

B2 B3 60ft. × 27ft. (18.28m×8.23m)

Walk on the line tape, feeling the tactile lines with feet and hands. Touch the center of the baseline, where the lines are crossed.

- Walk from the baseline to the net. Then go back to the baseline moving backwards. Count how many steps you need to reach the net.

Gradually do this faster and faster.

Run to the net and come back to the baseline.

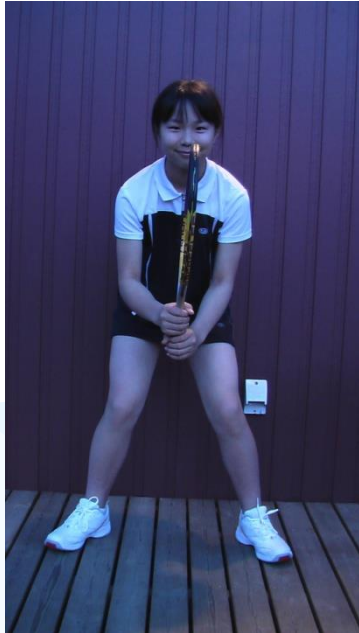
- Sidestep from sideline to the other sideline.

At first, hold hands with a coach or a friend.

- Try various types of footwork.



# Forehand and Backhand



Home position

- Bend your knees lightly. Hold the racket in the 'Ready Position' in front of your body.
- Forehands: For right-handers the left foot is in front.
- Backhands: The right foot is in front for both the one- and double-handed backhand.



Forehand



Backhand  
Single hand



Backhand  
Double hand

# Swing

Forehand



Backhand



- Introduce them to the concepts of Preparation, Contact and Follow Through.

## Put a ball on the floor

- Place a larger ball (such as volley ball or football) on the floor and roll it with the racket
- Put a tennis ball and roll it with a racket.
- Finish the swing with the racket to the other side of the shoulder.
- Teach the path of the racket and good form
- Put a cone on the floor as a target (put a bell on the top of the cone). Roll a ball to the cone.
- Roll a ball against a wall and attempt to continue the rally as many times as you can.
- Try to follow a ball that has rolled behind you.

## The Serve – Throw a hose

- The ability to serve seems to be most difficult movement for the blind to master. Serving is a similar motion to throwing an item.
- Cut a piece of hose approximately the length of a racket and have the student throw it from the baseline to the other side of the court, over the net.
- It is a good exercise for them to use the whole body, so encourage them to make the weight transfer from back to front.
- After throwing, remind them to stay upright rather than crouch over.
- Teach them the right form, from the starting point (preparation) all the way to releasing the hose (contact) and the finish (follow-through)
- Teach them how to use a loose wrist, which is the fundamental of serving.
- Mr. Horiuchi, from Asia university, introduced this exercise.



# Throwing

- Throwing underarm is a great way to demonstrate the motion necessary to swing at a forehand and backhand.
- Encourage the student to use the whole body.
- Use different kinds of balls, such as a blind soccer ball, a ball which contains a bell inside, a big rubber ball and a tennis ball for the blind.
- The coach rolls or throws the ball. The student catches the ball underarm.





# Hitting Progressions

- The student stands at the center mark of the baseline.
- The student hits the ball on a paper cup like a tee shot in golf. Or the coach ties the ball to a string and hangs it. The student will gain the feeling of a good contact with the ball.



- The coach rolls a ball to the student and, using the following progression, the student hits the ball.
  1. just make a contact with a ball (freeze on impact)
  2. make a contact with the ball and do a follow-through
  3. preparation, contact, and follow through
  4. move the feet, then hit a ball
- A coach drops a ball at the side of the player.  
After 2 or 3 bounces, hit the ball.  
Give them precise feedback on the height of a ball.
- Feed the ball by hand then progress to feeding with a racket.
- At first, feed the ball from close to the student. Gradually increase the distance: from the service line, the net, the other side of the court, the service line of the opposite court, and finally the opposite baseline.
- Make sure that the student practices both forehand and backhand.

# Rally Progression

- Rally rolling a ball on the floor.
- Rally a ball over the net.
- The student stands at the center of the baseline. After hitting the ball, he / she comes back to the center and touches the line with a foot or hand.
- Set a target. Rally 5 times, then 10 times.



The center court in Ariake



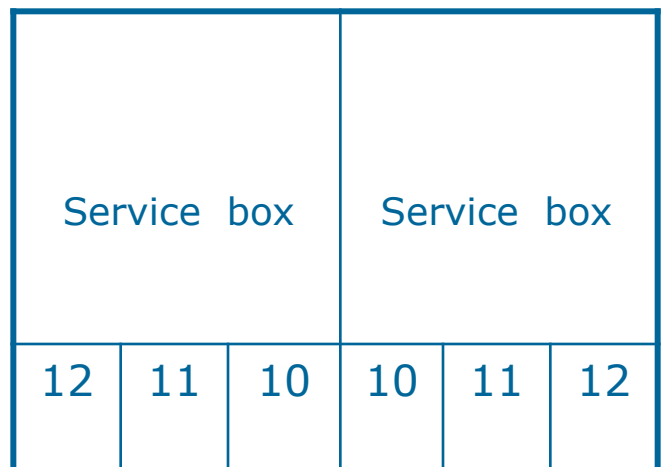
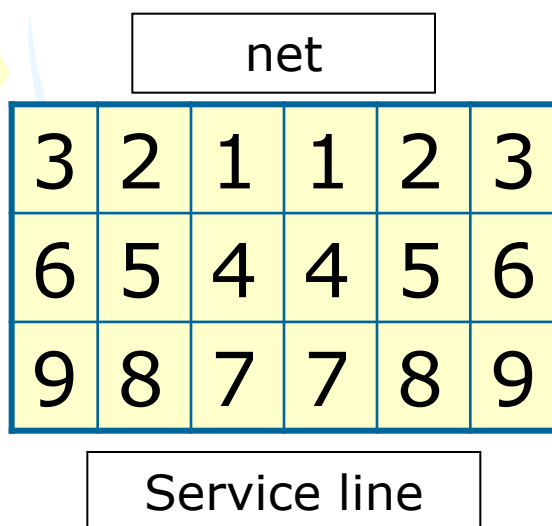
Saitama School for the Blind



The demonstration in Taiwan

# Game / Competition

- The service must be hit diagonally, same as normal tennis.
- If the score is 40 all, it is called deuce. To win a game, a player must win the next point (ie: no ad scoring). The receiver can decide from which side he returns the ball - the deuce side or the advantage side.
- If the score is 6 games all, a tie-break is played. To win the match, a player must get 7 points first.
- The court is divided 12 smaller non-marked boxes and the player is allowed to ask the umpire where the serve landed in order to make adjustments for the next serve.



# RULES

- ITF (International Tennis Federation) RULES APPLY WITH THE FOLLOWING EXCEPTIONS.

- Type of mask Each country uses a standard Paralympic mask for B1.
- Type of racket Any racket accepted by the ITF in accordance with court size. B1 max. 23 inches B2-B3 25 inches

- ITF RULES

PLUS

Ready? Yes. Play.

No Volleying

If the ball hits the player inside the playing area before the first bounce. It is a point for the opponent.

If the ball hits the player outside the playing area before the first bounce, it is a point for the player.

- BOUNCES

B1 B2 3 bounces

B3 2 bounces

- SIGHT CLASSIFICATION IBSA

- SIZE OF THE COURT

B1 SIZE will be 42ft.x21ft. (12.80m x 6.40m) Tactile lines on all lines except for the service boxes

B2 and B3 will be 60ft. X 27ft, (18.28m x 8.23m)

- TYPE OF BALL For 12 months from the date of the first international tournament all tournaments will use the current Japanese ball. The host country organizers will decide whether we use a black or yellow ball depending on the colors of the venue.



England

January 2007



Korea

September 2007



Taiwan

September 2008



Tianjin China

October 2009



Shanghai China

September 2010

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