SPORTS INSTRUCTION FOR PERSONS WITH VISUAL DISABILITY II

- With Goalball as an Example -

Editor SETSU IIJIMA



NATIONAL REHABILITATION CENTER FOR PERSONS WITH DISABILITIES JAPAN

(WHO COLLABORATING CENTRE)

November, 2017

Note: This manual is published by National Rehabilitation Center for Persons with Disabilities which is a WHO Collaborating Centre, and it is not a publication of WHO. The publisher is responsible for the views expressed in this manual, and it doesn't necessarily represent the decisions or policies of the World Health Organization.

Rehabilitation Manual 33

Sports Instruction for Persons With Visual Disability II

- With Gallball as an Example
November 28, 2017

Editor: Setsu IIJIMA

©National Rehabilitation Center for Persons with Disabilities

Yoshiko Tobimatsu, M.D., Ph.D., President

4-1 Namiki, Tokorozawa, Saitama Prefecture 359-8555, Japan

Tel. +81-4-2995-3100 Fax. +81-4-2995-3661

E-mail whoclbc@rehab.go.jp

PREFACE

When a person's sight is impaired, it is difficult for them to run at full speed or throw a ball with all their might. Another issue for them is that it is very difficult, in a team game, to be aware of the court and the position of teammates and opponents and to cooperate and avoid collisions. Goalball is one of the few team sports in which people with visual disability, beset by these difficulties, can use their whole body to play decisively. As is well-known, Goalball is also an official Paralympic sport.

The ball used in Goalball is fairly heavy—1.25kg—and feels very hard although its surface is rubber; players can be injured if they don't catch the ball skillfully. Goalball thus carries a sense of rigor and danger not found in other sports for persons with visual disability, such as sound table tennis. In addition, to win a game it is very important to have strategy based on elaborate calculations, making Goalball an interesting game in which players must use their intellect.

This manual is designed to encourage people to have a safe experience of Goalball as a sport that persons with visual disability can enjoy while making full use of their mind and body. I hope that this manual will play a role in the diffusion of Goalball as a familiar game and contribute to the expansion of the world of sports for persons with visual disability.

S. IIJIMA

EDITOR

Setsu IIJIMA

National Rehabilitation Center for Persons with Disabilities

AUTHOR

Naoki EGURO

National Rehabilitation Center for Persons with Disabilities

CONTENTS

Preface

Author

Introduction ————1
Chapter 1.
Origins of Goalball —————————————————————————————————
Chapter 2.
What is Goalball? ——————————————————3
1. Equipment
2. Court (Zones and Size) —————4
3. Rules of the Game (key points)5
Chapter 3.
Enjoyable Goalball Coaching Methods9
1. Becoming Familiar with the Court9
2. How to Catch the Ball ······12
3. For Players who Find it Hard to Visualize a Throw21
4. Offensive Strategies ————————————————————————————————————
5. Defensive Strategies
Chapter 4.
Setting up the Court
1. Equipment Needed to Set up the Court
2. Procedure for Setting up
3. Procedure for Dismantling
Chapter 5.
Spectate a Goalball Game
Chapter 6.
Alternative Equipment ————————44
1. Alternative Ball ————44
2. Alternative Goal45
3. Alternative Line ————————————————————46
References

Introduction

In the Rehabilitation Manual 25, we described the example of "sound table tennis." Now, in Sports Instruction for Persons with Visual Disability II, we describe goalball.

Sound table tennis is widely played in Japan as a sport that supports the rehabilitation of persons with visual disability. On the one hand, it is both safe and enjoyable, but on the other, its field of play is small and it does not often involve big movements.

We will introduce goalball, which is not yet widely diffused within Japan. The field of play in goalball is bigger than that of sound table tennis, and it requires a great deal of dynamic movement, but some complain of its being "painful and risky." Sports Instruction for Persons with Visual Disability II is a coaching manual intended to reassure potential coaches and organizers, and enable them to coach goalball in a safe and enjoyable manner. We hope you find it useful.

Chapter 1. Origins of Goalball

Goalball was devised in 1946 by the Austrian Hans Lorenzen and the German Sepp Reindle as a program to promote the rehabilitation of disabled soldiers (ex-servicemen) who had suffered visual disability during the World War II.

Goalball was derived from rollball, a rehabilitation sport used to train and entertain schoolchildren with visual disability. Also, a similar rehabilitation sport called Torball remains popular in countries centering around Europe and is played at schools for the blind.

Reference:

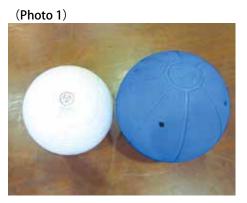
1. Shinji Mizuno, 2004, Practical Research relating to improvement in goalball competitiveness (Education Research Master's Thesis, Gifu University Graduate School)

Chapter 2. What is Goalball?

Goalball is a game in which two teams of three players wearing eyeshades (blindfolds) compete to score goals by rolling a 1.25kg ball with embedded bells. The teams repeatedly attack by throwing the ball at the opposing team's goal (9m wide and 1.3m high) and defend their own goal against the opponents' attack. The result is determined by the total score after two halves of 12 minutes each.

1. Equipment

(1) Ball [Weight: 1.25 kg, Circumference: 78 cm]



Left) Volley ball Right) Goalball ball

(2) Eyeshades, protectors, supports, etc. Examples of auxiliary equipment









Supports and protectors (Left: from baseball; Right: from karate)



Supports and shin guards (Left: from lacrosse; Right: from soccer)

(3) Goal



(width 9m, height 1.3m)

2. Court (Zones and Size)

When a sighted person engages in sport safely, an important point is how to confirm their own position, direction of movement and throwing direction that they usually confirm by instinctively using their eyes.

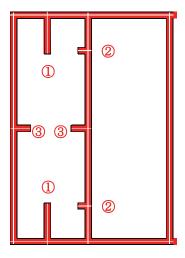
Goalball is designed to allow players to safely enjoy sport without using their sight thanks to kite twine (maximum diameter of 3mm) running under the line tape to create a textured surface and thus make it possible for players to confirm their position and orientation with their hands or feet.

(1) Size of court

- ① Court size(9m×18m)
- 2 Team area (9m×6m)×2
- Line out line Goal ③ Neutral area $(9m\times3m)\times2$ Goal line 4 Line out line (12m×21m) ‡ 1.5 Side line .18m **Team** area Neutral area 9m Landing Landing area Orientation Orientation area area Orientation: line 3m High ball area Side line Line out line

(2) Orientation lines

The orientation lines are within the team area. They are required for the players to confirm their own position and orientation. The lengths of the lines are as below.



- 1. 1.5m lines, 1.5m from the goal, and at right angles to the side lines.
- 2. 15cm lines, on the line 3m from the goal, pointing toward the goal, 1.5m from the side lines and parallel to the side lines.
- 3. 50cm lines placed centrally (at 4.5m) on the goal line and the line between the landing area and the orientation area, at right angles to these lines, and pointing toward the center of the orientation area.

3. Rules of the Game (key points)

(1) Penalties

There are personal penalties (resulting from an offense by an individual) or team penalties (resulting from a team offense). Committing an offense results in a penalty throw for the opposing team.

The offending team is allowed only one penalty defender to protect the 9m-wide goal; the other two players must leave the court.

The personal penalty defender is the player committing the offense; the team penalty defender is the player chosen by the opposing team.

- (1) Personal penalties
 - O Touching of eyeshade

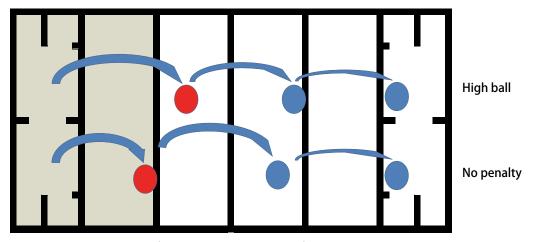
This penalty is incurred when the eyeshade is touched without the referee's permission.

*A player is not permitted to touch his or her eyeshade, even if, for example, it has been dislodged by the ball, unless the player says "eyeshade" to the referee and obtains permission to touch it.

O High ball

When thrown by a player, the ball must touch the ground at least twice (once in the thrower's own team area and once in the neutral area).

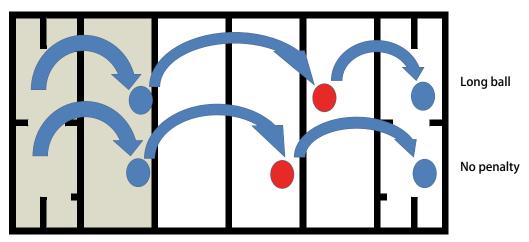
A high ball penalty is incurred when the ball thrown does not touch the ground first in the thrower's team area (Figure 1).



(Figure 1: High ball penalty)

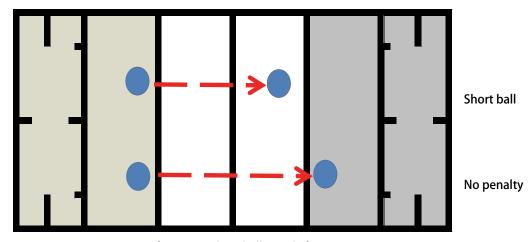
O Long ball

When, although the ball thrown touches the ground first in the thrower's team area, it next touches the ground in the opposing team's area (i.e., if the ball does not touch the ground in the neutral area at least once, a long ball penalty is incurred) (Figure 2).



(Figure 2: Long ball penalty)

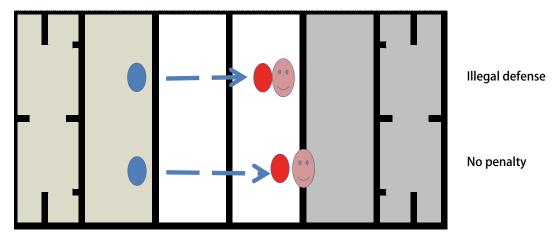
© Short ball A short ball penalty is incurred when the thrown ball does not land in the other team's area (Figure 3).



(Figure 3: Short ball penalty)

O Illegal defense

If an attack from the opposing team is blocked outside the team area, an illegal defense penalty is incurred (Figure 4).

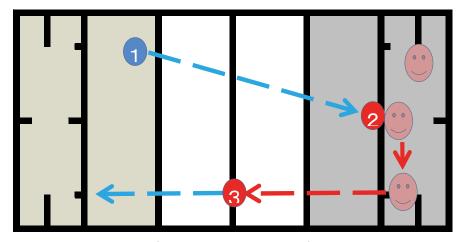


(Figure 4: Illegal defense penalty)

2 Team penalties

10-second penalty

A 10-second penalty is incurred if it takes longer than 10 seconds for a ball returned after an opponent's attack has been blocked to cross the center line (Figure 5).



The ball must not take longer than 10 seconds to go from 2 to 3

(Figure 5: 10 second penalty)

O Noise

A noise penalty is incurred if noise is used to confuse the opposing fielders.

An illegal coaching penalty is incurred if a coach or other member of staff instructs the players when the main time clock is active.

(2) Infractions

If a team commits an infraction, it loses possession of the ball and the ball passes to the opposing team.

O Premature throw

If the ball is thrown before the referee's whistle, this is a premature throw infraction.

O Pass out

If the ball leaves the court when passed to a team member, this is a pass out infraction.

O Ball over

If a ball hit defensively crosses a neutral area side line or the center line, this is a ball over infraction.

Chapter 3. Enjoyable Goalball Coaching Methods

It seems that many coaches and persons with visual disability do not have a particularly good image of the game of goalball, thinking of it as "painful" and "dangerous" rather than enjoyable. This kind of image is probably paramount because of feelings like those below.

"It's scary; it's dangerous"...everyone has blindfolds on and so the players bump into each other. "It's painful"...a heavy (1.25 kg) ball is thrown, and you stop that ball by blocking it with your body.

With this in mind, we describe methods of "enjoying goalball", with no need for concern about pain or injury on the part of coaches or persons with visual disability.

1. Becoming Familiar with the Court

Players can only move freely around the court if they are familiar with it. To move freely while wearing eyeshade (blindfolds), you need to know your position and the direction in which you are facing using the lines on the court, the goal, and the voices of your team mates on the court. First, we will describe training in how to acquire the skills needed to move around the court independently.

- (1) Training in how to use the goal and orientation lines
 - ① How long 9m feels is confirmed by crossing the court while touching the goal.
 - ② Having orientated his or herself by putting his or her back to the goal, the player becomes familiar with how long 3m and 6m feel.
 - (3) The position of the orientation lines is confirmed.
 - © the position of 50cm and 15cm is confirmed.
 - the position of 1.5m is confirmed.
 - *When confirming the line with the foot, and the player walks backward with toes on the floor, raising heels.





While touching the goal, the player safely crosses the court and confirms his or her position.

(Photo 1-3)



Crossing the court while touching the goal

(Photo 1-4)



Confirming position by touching the goal posts

(Photo 1-5)



Crossing the court, while touching the top of the goal

(Photo 1-6)



Confirming orientation by putting the back to the goal

(Photo 1-7)



Returning walking backwards



Confirming the line by rubbing the toes along the floor, without taking them off the floor





Confirming position and orientation by touching the line with the hands

2. How to Catch the Ball

(1) Stage 1

To catch the ball securely, the player catches it while standing face on to the rolling ball as it approaches. The ball is not stopped with only the hands or feet, but rather it is brought under control as its momentum is slowed securely with the whole front of the body.

- ① Players catch balls that are straight in front of them.
- ② If the ball thrown is not straight in front of the player, the player listens to the sound of the ball, and moves to the left or right to catch the ball straight on.
- (3) The player acquires the skills needed to understand the trajectory of the ball.

(Photo 2-1)



Squatting square on to the ball



Picking the ball up with both hands after it has hit the feet

*Attempting to catch the ball with the hands before it reaches the body can result in injury (a sprained or broken finger). We suggest taking care to enjoy the game safely.

(Photo 2-3)



Moving to the right or the left

(Photo 2-4)



Catching the ball face on





(Photo 2-6)



(Photo 2-7)



(Photo 2-8)



The line between the player's own position (Photo 2-5: origination) and the landing point (Photo 2-6) is visualized, and changing position to securely catch the ball face on is practiced (Photo 2-8).

(2) Stage 2

We now suggest using the actual court to practice the basic activities of confirming position and orientation and listening out for the ball.

1 Playing catch in pairs

One of the attractions of goalball is that it offers training that increases independent thought and imagination.

The player comes on to the court (9m×18m), rolls the ball, catches it face on, and confirms position and orientation. While visualizing the size of the court, the player consciously rolls the ball.

< Example of training activity >

- With a slow rolling speed, the ball is rolled so that the sound can be heard.
- Having caught the ball, the player quickly confirms the direction and rolls the ball.

(Photo 2-9)



(Photo 2-10)



Play catch in pairs to master the basic activities of court perception, listening out for the ball, and confirming position and direction.

(Photo 2-11)



(Photo 2-12)



To catch the ball securely, the player catches it while facing it square on. Straight after catching it, the player immediately moves across, confirms position and orientation, and rolls the ball; training with mutual awareness of these basic activities.

② Working as a team

The greatest attraction of goalball is that it offers training to improve teamwork. We suggest practicing playing safely on the court as a team of three, by calling to one another and becoming familiar with one another's positions.

<Example of training activity>

- Every time you catch the ball, pass to your team mates (Photo 2-14)
- Practice passing to your team mates, hand to hand (Photo 2-16)

(Photo 2-13)



(Photo 2-14)



(Photo 2-15)



(Photo 2-16)



Let's practice moving around the court freely as a team of three. Practice confirming each other's movements while communicating one's own movements.

After plenty of practice, the skills are acquired that allow three unseen players to move freely around the court without bumping into each other.

(3) Stage 3

To catch the ball securely, the opponent's attack is blocked using the whole body (from finger to toe).

Below, we describe basic training for this activity.

① Finding out if the player favors the lower left or lower right

(Photo 2-17)

(Photo 2-18)



The player sits with legs out, and confirms whether he or she finds it easier to fall to the left or to the right by trying both.

② Adopting a defensive position





- ③ Flexing the abdominal muscles
 - Hands outstretched
 - © Feet outstretched
 - © Face protected by arms

(Photo 2-22)



(Photo 2-23)

(Photo 2-24)



For a player who cannot flex the abdominal muscles, we suggest the player calls up an image of abdominal muscles, and turns over in that position to create a defensive position (Photo 2-22).

- 4 Practicing moving to a defensive position from a curled-up position (Photo 2-25)
- (5) Moving to a defensive position from being seated on the ground (Photo 2-26)

(Photo 2-25)



(Photo 2-26)



(Photo 2-27)



(Photo 2-28)



Practice confirming the lines with their hands and feet after taking a defensive stance to know which way they are facing (Photos 2-27, 2-28).

Next, we describe training in catching the ball with the whole body.

The player flexes the body from fear of pain when the ball hits the body and so is unable to use his or her strength (Photo 2-29).

To become familiar with the sensation of the ball hitting the body, we suggest catching practice starts with short distances that gradually lengthen.

(Photo 2-29)



(Photo 2-30)



(Photo 2-31)



(Photo 2-32)



(Photo 2-33)



The distance is gradually increased, starting with hitting the hands and feet from 3m (Photo 2-32). From 3m to 6m (Photo 2-33)

(4) Stage 4

When there is a penalty, a single player needs to defend a 9m goal, and so players need to be able to defend while standing up, moving across a wide space.

- ① Practice jumping to the left or right from bended knees.
- ② Practice jumping to the left or right from a crouching position.
- 3 Practice jumping to the left or right from a standing position.

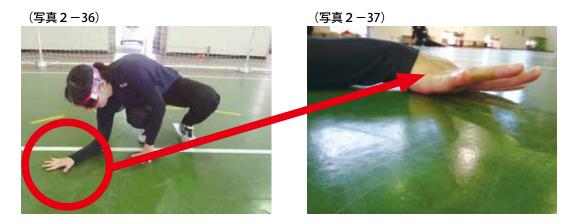
(Photo 2-34)



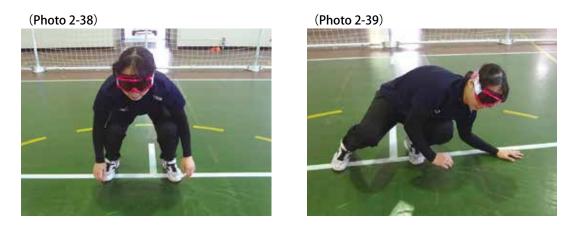
(Photo 2-35)



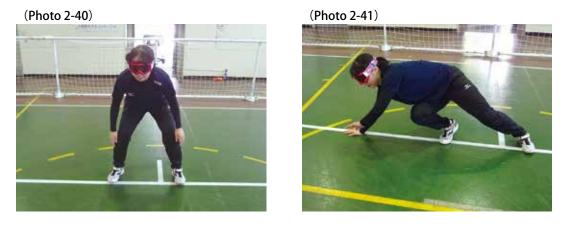
We suggest starting from a low position to avoid fear related to height.



If you twist your arm, you may hurt your shoulder and so we suggest practicing picking your little finger off the ground first and then sliding the heel of your hand.



After plenty of practice, try increasing the distance from the floor.



After plenty of practice, try defending to the left or right from a standing position.

3. For Players who Find it Hard to Visualize a Throw

- ① Method of training in movement visualization that requires no equipment
 - © Remaining conscious of the axis of the body, stretch out the hands and legs and twist (Photo 3-1, 3-2, 3-3).
 - © Remaining conscious of the trunk, bend forward and twist the body (Photo 3-4, 3-5, 3-6).

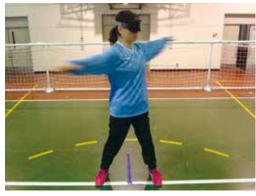
(Photo 3-1)



(Photo 3-2)



(Photo 3-3)



(Photo 3-4)



(Photo 3-5)



(Photo 3-6)



② For players who find it hard to visualize a throw

Players unable to visualize body twisting should imagine holding a big ball and moving it from right to left,

When used to this, try twisting the body while imagining picking up the ball and holding it.

(Photo 3-7)



(Photo 3-8)



(Photo 3-9)



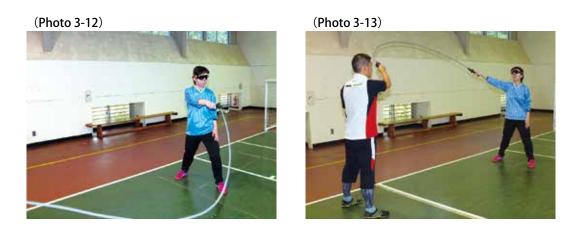
- ③ Using equipment to help visualize movement of the body
 - © Swinging a skipping rope round⇒helps with visualization of swinging your arm round
 - Golf swing⇒helps with coordination of arms and hips

(Photo 3-10)

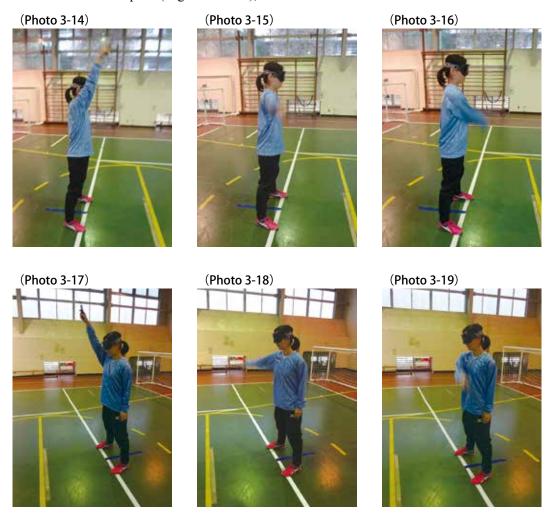


(Photo 3-11)





*The coach controls speed (degree of force), etc.



For imaging arm swinging, try visualizing bringing the arm round in front of the body.















Using the weight of the club, try visualizing the swing of the arms and the twist of the hips.



Using a tennis racket, try visualizing the swing of the arm.









Try practicing swinging the arm and twisting the hips, with a step added. Just doing the movement with the racquet cover increases the load.3

4. Offensive Strategies

- (1) Visualize the flow of play and look at various types of ball
 - ${\Large \textcircled{1}}$ Fast attack
 - ② Gaining possession of the ball and immediately moving across to a throwing position
 - ③ Increasing shot repertoire (curve, shoot, bounce)
 - 4 Spin or rotation throw
 - ① Fast attack: Attack immediately after getting the ball.

(Photo 4-1)



(Photo 4-2)



(Photo 4-3)



(Photo 4-4)



(Photo 4-5)



(Photo 4-6)



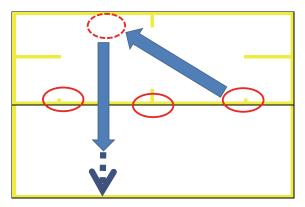
(Photo 4-7)



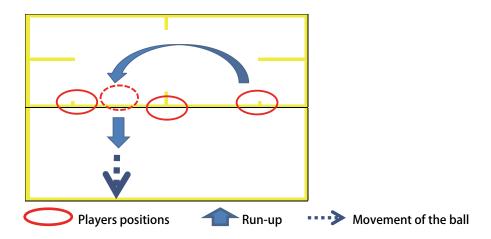
- 2 Moves across immediately after gaining possession of the ball, varies the throwing position and attack.
 - *The key point is to listen to the sound made by the Center and the other Wing and pass through between them.

<Example of training activity>

We suggest practicing throwing from the position between the two players. Accuracy of direction will be improved if having confirmed orientation by putting back to the goal or touching the goal posts, the player then listens for the voices of the Center and Right Wing before moving.



After plenty of practice, we suggest attempting it without touching the goalposts.



③ Increasing shot repertoire (curve, shoot, bounce)

(Description of modified shots)

Right-handed curve: Pronate the forearm when letting go of the ball

(Photo 4-8)



(Photo 4-9)



(Photo 4-10)



(Photo 4-11)



Right-handed shoot: Supinate the forearm when letting go of the ball

(Photo 4-12)



(Photo 4-13)



(Photo 4-14)



(Photo 4-15)



(Photo 4-16)



Bounce ball: Give the ball top spin and throw it so that it will hit the floor

(Photo 4-17)



(Photo 4-18)



(Photo 4-19)



(Photo 4-20)



(Photo 4-21)



Spin or rotation throw: This type of throw has two benefits. One is that it makes it possible to throw powerfully after a short run-up (3m). The second is that it allows the sound of the bells to be minimized by the utilization of centrifugal force.

(Photo 4-22)



(Photo 4-23)



(Photo 4-24)



(Photo 4-25)



(Photo 4-26)



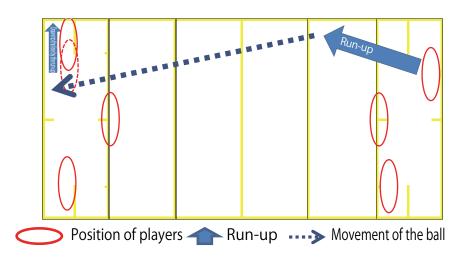
(Photo 4-27)



(Photo 4-28)



4 Trying a tactical run-up before throwing.



^{*}Running up caused the opponent to move and the ball can be thrown into the space opened up.

5. Defensive Strategies

(1) The triangle

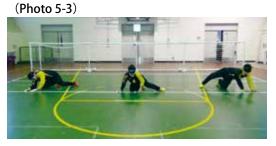
The three team members position themselves at the orientation lines so that their positions are known. The Center ensures that he or she is right in the middle of the team area frontline at the 4.5m mark and the Wings ensure that they are on the 1.5m lines. Because the lines defended are different, each player can move to their left or right.

(Photo 5-1)



(2) The straight line

All the players are lined up sideways creating a single defensive wall with no gaps. The Center and the Wings defend the team area frontline. Because the players sometimes touch each other, they need to pay due attention to sense of distance.





(3) Defending with all players standing

This is a defense strategy, only possible for teams with high individual skills, in which all team members are in a position to catch any ball. They do not bump into each other even if attempting to stop a ball heading toward the center of the court, because each has a differing line of defense (each is a different distance from the goal).

The Center defends the team area frontline, the Left Wing a 1.5m line, and the Right Wing the goal line.

(Photo 5-5)



(Photo 5-6)



(Photo 5-7)



(4) The inverse triangle

This has the advantage of allowing rapid attack, because the Wings get the ball first.

(Photo 5-8)



(Photo 5-9)



The Right Wing and Left Wing both defend the team area front line, and the Center defends a little further back, so as not to bump into them.

Chapter 4. Setting up the Court

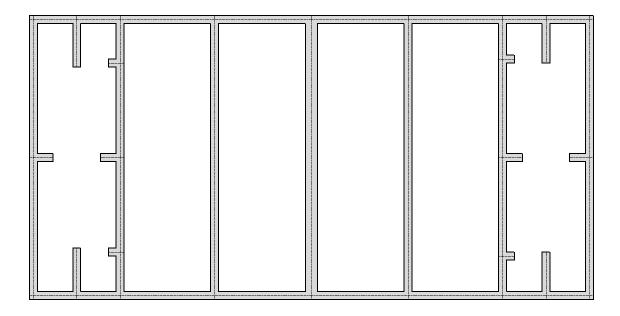
1. Equipment Needed to Set up the Court

- Line tape (width 50 mm)
- Kite twine (thickness 1 mm–3 mm)
- Packing tape (tape to strengthen the kite twine)

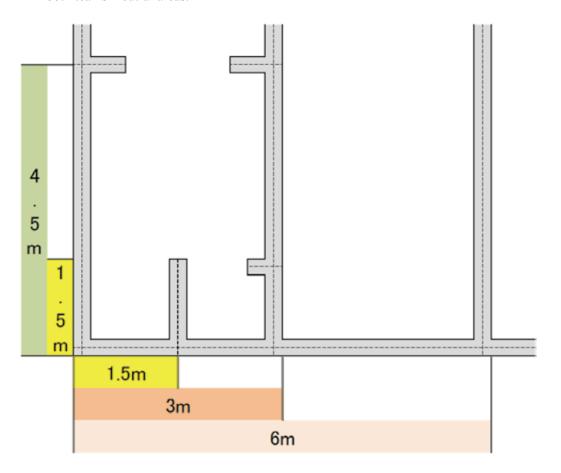
*Kite twine (maximum thickness 3 mm) is stretched along all the lines on the court so the following lengths are needed.

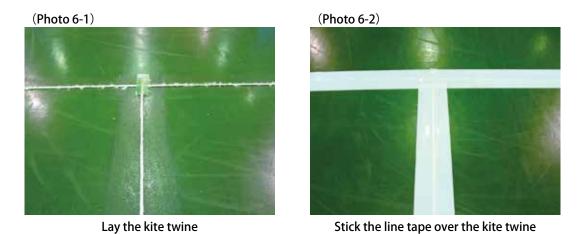
2. Procedure for Setting up

(1) Lay the kite twine in all required places. The twine should be exactly in the middle of the line tape.



©Goal lines and team area front lines contain the team areas, and the center line contains both teams' neutral areas.



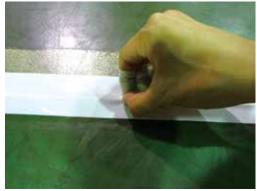


(Photo 6-3)



Sticking the line tape on top of the kite twine

(Photo 6-4)



Ensuring that the kite twine is raised so that it can be felt

(Photo 6-5)



3. Procedure for Dismantling

Pull up the short tape first.

NB. The tape is discarded. The kite twine is re-used and so is kept separately. Four lengths of 15cm, four lengths of 50cm, four lengths of 1.5m, seven lengths of 9m, and two lengths of 18m are retrieved in bundles. Some floor surfaces can be marked. Effort should be made to pull up the tape without too much force.

For the 9m and 18m lengths – tangling can be minimized by working in a team of two, one pulling up the tape and one winding up the kite twine. (Photo 6-6)

(Photo 6-6)



(Photo 6-7)

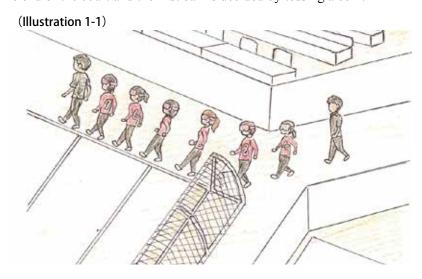


Bundles of kite twine of the same length

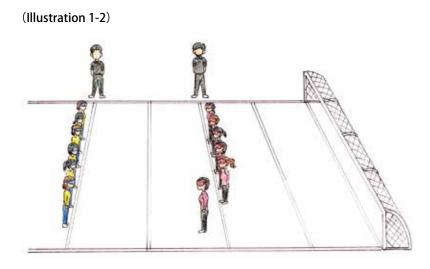
Chapter 5. Spectate a Goalball Game

We are often asked the following question about supporting a goalball team: "I don't know when I am allowed to cheer in support." With this in mind, we would like to explain the flow of play so that the reader can have a greater understanding of the game of goalball and provide a reference for when to loudly applaud and cheer to encourage the players.

The coin toss happens 30 minutes before the game begins. First, the line-up of players and officials for each team is confirmed, and the referee and opposing coaches greet each other. Then, the starting home end of the court and the first ball is decided by tossing a coin.



Fifteen minutes before the match starts, the players come onto the court. The referee leads the players and team officials onto the court. At this point, you are welcome to cheer loudly.



The players line up on the landing area front line, and the name of each player and team official is announced. Please cheer loudly.



Now is the time for final adjustments before the match begins. Each team uses half of the court to practice. It is acceptable to cheer during this practice. However, before cheering, please give due consideration to the fact that players rely on sound.





From around three minutes before the match starts, players put on their eye patches (eye protectors/blindfolds) on their own bench. The players come on court as their eye patches are ready and undergo an eyeshade check by the referee.

(Is the eye patch firmly attached? Is the eyeshade letting any light through? Has the eyeshade been tampered with?)

All players, those who are completely blind and those with poor sight, play under the same conditions and so all players coming on court undergo these checks before playing. It is acceptable to cheer while these checks are being carried out.



The players and team officials will be nervous as they wait for the game to start, so please do cheer loudly at this point. When the main time clock starting buzzer sounds, listen for the referee's call.

"Quiet, please" · · · Please be quiet in the hall.

Finally, the game begins.

Each half of the game is 12 minutes long, and the result is decided during these 24 minutes (half-time lasts three minutes). When the result is not decided within regular time, there is six minutes' overtime (two halves of three minutes each, with three minutes for halftime). If no result is decided during overtime, the outcome is decided by extra throws.

<The role of the main time clock>

The main time clock is positioned in the middle of the court, giving information on the time remaining, counting down from 12:00 (12 minutes).

The main time clock starts when the referee calls, "Quiet, please," followed by three whistle blows "Pi! Pi!," and start with "Play." The clock stops the next time the referee blows the whistle.

When the main time clock is stopped, it is acceptable to cheer. Then, after the referee calls, "Quiet, please," please be silent.

<Time out and substitution>

During time out and while substitutions are being made, please applaud and cheer.

Time out is allowed as below.

- During regular time: 45 seconds, each time
- Time out can be taken four times in total over the first and second halves, but one of the occasions must be in the first half, and if not taken, that time out is forfeited.
- Time out is requested by hand signal or by calling, "Time out."

(Illustration 1-4)



A substitution is when one player replaces another. Substitution is allowed as below.

- During regular time: Substitution can be made four times (four persons) in total over the first and second halves, but one of the occasions must be in the first half, and if not taken, that substitution is forfeited.
- During overtime: One substitution is allowed in either the first or second half.
- Substitution is requested by gesturing to the referee using a winding motion with both hands and calling out.
- A card with the shirt numbers of the players involved in the substitution is shown to the referee, and the referee calls out, "Substitution (team name), (out, number x, in, number x)."
- When the referee has checked the new player's eyepatch and eye shade, he or she can come onto the court.

NB. When the substitution hand signal or call is made, the substituting player on the bench must prepare by putting on his or her eyepatch and wait for the referee to carry out an eye shade check. The player must be careful because if the eye shade check shows a lack of proper preparation, team delay of game penalty is incurred.



Using hand signals to communicate with the referee



(Photo 7-5) (Illustration 1-6)



Showing the number of the player being substituted – out, 6



(Photo 7-6)



Showing the number of the new player-in,7

(Photo 7-7)



Player number 6 returns to the bench.

The player being substituted quickly leaves the court, and the new player comes on. If everything for the game is in order, the referee will call, "Quiet, please." At this point, please be silent.

*The main time clock is stopped by the whistle. Please cheer after you hear the referee's call.

So, what do you think about goalball now? Have your questions been answered?

<Confirmation of the role of the whistle>

The role of the whistle (Three times at the beginning of the game)

The role of the whistle (Twice when a goal is scored)

Other occasions (once)

- End of the game
- Penalties
- Infractions
- Line out, ball over, etc.

"When is it OK to cheer?" "Is it OK to shout?"

 \rightarrow It is OK when the main time clock is stopped.

→Be quiet if the referee calls, "Quiet, please."

"What are the rules?"

→The main rules have been outlined above; please take a look.

"Why is a player on their own on the court?"

- →This is because, when a penalty is incurred, one player defends against the opponents' attack. "Why does the opposing team nominate which player defends?"
 - \rightarrow A penalty can be either a team penalty or a personal penalty. When it is a team penalty, it is possible to nominate the player who will defend the penalty, from among the three players on the court.

Chapter 6. Alternative Equipment

Many items of goalball equipment are very expensive, and some people who want to try the sport are unable to do so because they cannot afford the balls and other equipment. We tried to think of alternative equipment that will allow such people to have some experience of the game.

1. Alternative Ball





Using a volleyball and a supermarket plastic bag.



^{*}The volleyball will not now bounce.





Instead of a volleyball, newspaper and cardboard can be used.

*This can be used, not to play a game of goalball, but for persons with visual disability to play catch with each other as an introduction to listening out for the ball. This ball is light, making it suitable for children. We suggest the players stand close to each other.

2. Alternative Goal

A wall or fence can be used as a method of confirming that the ball is being thrown straight ahead.





Line up the back

(Photo 8-8)



Line up the heels

Confirming orientation using a wall.(Photo 8-6, 8-7, 8-8)

(Photo 8-9)



Confirming orientation using a fence

(Photo 8-10)



3. Alternative Line

If playing outdoors, it is possible to confirm orientation using a mat or something else with raised bumps. It is also possible to use grooves.

(Photo 8-11)



(Photo 8-12)



feet

(Photo 8-13)



When training outside, the ball can be rolled after confirming orientation using a mat, etc. (Photo8-11)

Confirming position and orientation using grooves. (Photo8-13)

References

- 1. Japan Goalball Association http://www.jgba.jp/
- 2. International Blind Sports Federation http://www.ibsasport.org