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Handball is a dynamic sport that is fun to play and exciting to watch. It is a fast team game of great physical, psychological skills. It is played in most of the countries in the world. It requires only a ball and two goalposts. The sport uses natural athletic skills such as running, jumping, throwing and catching to provide the action for the game.

Handball is played between two teams, each with six court players and a goalkeeper. The aim is to throw the ball into the opponent's goal and defend one's own.

**HANDBALL IN INDIA**

In India Handball was founded by Sh. Jagat Singh Chauhan who was a physical teacher hailing from Haryana. He was the first Secretary of Handball Federation of India. The Member States were Andhra Pradesh, Uttar Pradesh, Haryana, Vidharbha and Jammu and Kashmir.

The first senior National Handball Championship was held at Rohtak (Haryana) in the year 1972. Haryana won the gold medal and Vidharbha got the silver medal.

In the year 1973 Second Senior National Handball Championship was held at Hyderabad (A.P.) where Andhra Pradesh won the gold medal and Vidharbha won the silver medal.

Due to some unavoidable circumstances, Mr. Jagat Singh Chauhan could not continue as secretary of Handball Federation of India. Mr. M.L. Khan was elected as secretary of Handball Federation of India and Mrs. Laxmi Chhabla elected as President of Handball Federation of India at Hyderabad. In the year 1973 first All India Tournament was held at Jalandhar.
In the year 1978 Maqsood Memorial Tournament was held at Srinagar. The team like Air Force, west Bengal, Jammu & Kashmir and Vidharbha participated in the tournament.

In the year 1979, the Senior National Handball Championship was held at Ludhiana. During this Championship the selections were made to participate in the 2nd Asian Handball Championship held at China. Duly ten days National Coaching Camp was held at Jammu. In 1976, the elections were held at Nagpur. Mr. M.L. Khan was elected as secretary and AVM H.L. Kapoor was elected as President of Handball Federation of India.

The game saw a trend with physical abilities more dominating. But in the year 1976 the first Indoor Handball game rules were applied and the ground dimensions changed to the existing ones. In the year the HFI got affiliated to Asian Handball Federation.

In 1981, the probables were selected for the National Coaching camp for the preparation of the Indian Handball to participate in the Asian Games held at Delhi in 1982.

First Seminar for reference coaches was held at Nagpur in 1981. Mr. Erick Illias took the Seminar.

- First time in India Handball Team participated in Asian Games held in India in 1982. The performance of the men team was fairly well. Handball took a big step towards popularity since then.
- Conduct of National Championship in various categories.
- Organizing of Handball competition in state Police Department and conduct of All India Police meet.
- As we get tall and well built players in BSF, CRPF, CISF, game has been also introduced in above Para military Forces of the country and they are affiliated with Handball in Indian Railway.
- Introduction of Handball in Indian Railways.
- Presently various SAI Training Centres are acting as the nursery for Handball and producing good players for participating in International Competitions.
- The game has already been regular features of SGFI, AIV, schools of Kendriya Vidhyalaya Sangha than (KVS) and Navodaya Vidyalaya.
- Efforts will continue to introduced Handball in other Departments like Customs, Food Corporation of India (FCI) and Department of Posts etc. We hope to achieve this target by the end of this year i.e. by December 2009.
- Sports Authority of India is required to open more SAI Hostels in North Zone, South Zone, East Zone and North East region.
The Certificate course in Handball started at NIS in the year 1973 and continues till today.

The Regular Diploma course in Handball also started in 1983 at Patiala and it is continuing. In the schools also Handball game took its popularity. The SGFI organised its First School National Games at Srinagar in 1981. In the colleges, Handball grained its development. First All India Intervarsity Championship was held in 1979. Thereafter Handball game was played in rural villages and also in every corner of cities.

The elections to the Handball Federation of India were held at Ludhiana in 1985. Sh. S.M. Bali was elected as Secretary and Padamshree Dr. R.L. Anand was elected as President, Handball Federation of India respectively.

Handball game in India took a new look and popularity during the leadership of Mr. S.M. Bali and Padamshree Dr. R.L. Anand with more international exposure and organizing various International Tournaments in India.
Creation of Play Field

Handball ground is 40 meters long and 20 meters wide. It can be reduced up to 38 meters in Length 19/18 meters, in width if needed.

Surface

(1) **On Grass**: We can make a Handball court at Panchyat Level, Distt. Level State Level.

(2) **Muddy Surface**: Handball Court can be marked on scraped long which is rolled perfectly.

**Goal Post**: Goal Post must be 3×2 Mtrs. (Horizontal 3 Mtr. and vertical 2 Mtrs.)

(3) Measuring tap for marking of court.
(4) Rope for marking of line.
(5) Marble powder.
(6) Nails (6 inches).

**List of Equipment:**

<table>
<thead>
<tr>
<th>For Competition</th>
<th>On One Court</th>
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</thead>
<tbody>
<tr>
<td>1. Handballs</td>
<td>Two for each court</td>
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<tr>
<td>2. Goal Post with nets</td>
<td>One pair</td>
</tr>
<tr>
<td>3. Whistle</td>
<td>Three</td>
</tr>
<tr>
<td>4. Air pumps</td>
<td>One</td>
</tr>
<tr>
<td>5. Table Official</td>
<td>One</td>
</tr>
</tbody>
</table>

[4]
6. Chairs Four
7. Stop & Go watch Three
8. Score Sheet One
9. Buckets Two
10. Mugs Two
11. Substitute Bench Two (12 feet long)
12. Marble Powder (As per requirement)
13. Marking Machine One
14. Marking Tape One (100 mts.)
15. Card Yellow, green (2) Red (as per requirements)
16. Pen / Pencil As per requirements

For Training
(Training aids)
1) Handball
2) Handball Court
3) Medicine Balls ½kg., 1kg., 2kg., 5kg.
4) Boxes for Jump Training
5) Hurdles for Jump Training
6) Skipping ropes for Jump Training
7) Weight jackets for resistance training
8) Cones in different sizes
Team Composition

THE TEAM

4:1 A team consists of 12 players. The players' names must be listed in the score sheet.

- The team must use a goalkeeper at all times.
- Not more than 7 players (6 court players and 1 goalkeeper) may be present on the court at the same time. The remaining players are off the court at the same time. The remaining players are substitutes.
- Only the substitutes, suspended players if any and 4 team officials are allowed in the team substitution area.
- The team officials must be listed in the score sheet and may not be replaced during the course of the game. One of them designated as "the responsible team Official". Only this Official to address the timekeeper / scorekeeper and possibly, the referees.

4:2 A team must have at least 5 players ready on the court at the start of the game.

- The number of players in a team can be increased upto 12, any time during the game, including overtime.
- The game may continue, even if a team is reduced to less than 5 players on the court.

4:3 A players is entitled to participate if he is present at the start of the game and is included in the score sheet.

- The court over the team's own substitution live.
- Players and team officials who are active after game has started must obtain their entitlement to participate from the time keeper/Score keeper.
• A player who is not entitled to participate shall be disqualified if he enters the court and the opponents shall be awarded a free throw.

4.4 Substitutes may enter the game, at any time and repeatedly without notifying the timekeeper / scorekeeper as long as the players they are replacing have already left the court.

• This also applies to the substitution of goalkeepers.
• The players shall always leave and enter the court over their own teams’ substitution line (4:5, 13:1a)
• During a time out, it is permitted to enter the court from the substitution or else with explicit permission from one of the referees (hand signal 18)
• Anyone leaving on entering the court incorrectly shall be penalized for faulty substitution, except in the case of someone leaving the court unintentionally.

4.5 A faulty substitution shall be penalized with a free-throw for the opponents (13:1a) from the place where the guilty player crossed the side line. However, if the ball is at a more favorable position for the opposing team when the game is interrupted, then the free throw shall be taken from there. In addition, the offending player shall be given a 2 min suspensions (17:3a). If the faulty suspension taken place during a stoppage in the game, the player shall be suspended but the game is to be restacted in the way which corresponds to the reason for the stoppage.

• In the event of a seriously unsporturanlike conduct of an assault in connection with, as immediately following a faulty substitution, the guilty player shall be disqualified or excluded, respectively.

4.6 If an additional player enters the court without a substitution or if a substitute illegally interferes with the game from the substitutions area, there shall be a 2 minute suspension for the player, and another player must leave the court so that the team plays with reduced strength for 2 minutes.

• If the player enters the court while serving a minute suspension.

4.7 All the court players in a team must wear identical uniforms. The combination of colours and design for the two teams must be clearly distinguishable from each other. A player who is used as goalkeeper must wear colours which distinguish him from court players of both teams and the goalkeeper of the opposing team.

• The players should be numbered from 1-20. The number must be at least 20cm. high in the back of the shirt and at least 10cm. in the front.

• The colours of the numbers must contrast clearly with the colours of the shirt.

• The players must wear sports shoes.
• It is not permitted to wear any objects that could be dangerous to players.
• Players who do not meet the requirement will not be allowed to take part until they have corrected the problem.
• The captain of each team must wear an armlet around the upper arm. It should be about 4cm wide and its colour must contrast with that of the shirt.

THE GOALKEEPER:
A player who is playing in the goalkeeper position may become a court player at any time, following a change of uniform. Similarly, a court player may become a goalkeeper at any time.

Touch the ball with any part of his body while in the act of defence inside the goal area.

Move around with the ball inside the goal area without any restrictions.

Leave the goal area without the ball and participate in the game in the playing area. When doing so, the goalkeeper becomes subject to the rules applying to players in the playing area.

To leave the goal area with the ball and play again in the playing area, if he has not managed to control it fully.

Endanger the opponent while in the act of defence.

Play the ball intentionally out over the outer goal line, after controlling the ball.

Leave the goal area with the ball under control.

Touch the ball again outside the goal area following a goalkeeper throw, until after it has touched another player.

Touch the ball when it is stationary or rolling on the floor outside the goal area.

Re-enter the goal area from the playing area with the ball.

Touch the ball with the foot in the leg below the knee when it is stationary on the floor in the goal area or moving out towards the playing area.

Cross the goalkeepers restraining line (4meter line) or its projection on either side, before the ball has left the thrower's hand when a 7 meter throw is being taken.

Test for selecting the players of Handball

Motor ability Test
1) 30m flying start
2) broad jump (explosive strength of)
3) sit-ups in 30 secs.
4) Medicine ball throw (2kg while sitting) (Explosive strength)
5) Agility test (10x6m)
6) 2.4 Km run (Endurance)

**Skill test**
1) Shooting
2) Catching and Passing
3) Feints
Brief Rules & Regulations

THE PLAYING COURT

1:1 The playing court is a 40 meter long and a 20 meter wide rectangle consisting of two goal areas and a playing area. The longer boundary lines are called side lines, and the shorter ones are referred to as goal lines (between the goal posts) or "outer goal lines" (on either side of the goal).

The condition of the playing court must not be altered in such a way that one team gains advantage.

Note: Surrounding the playing court there should be a safety zone, at least 1 meter wide along the side lines and 2 meter wide behind the outer goal lines.

1:2 A goal is placed in the centre of each goal line. The goals must be finally attached to the floor. They have an interior height of 2 meters and a width of 3 meters (except in mini handball where the height is 1.60 meters and the width 3 meters).

The goal posts are joined by horizontal crossbar. The rear side of the goal posts shall be in line with the ear edge of the goal line. The goal posts and the crossbar must have a 8cm. square cross section and consist of a uniform material (e.g. wood, light metal, or synthetic material) on the three sides which are visible from the court. They must be painted in bands of two colours having contrast clearly with the background.

The goal post stand and the crossbar shall be painted in the same colour, where they join. This couour shall extend for 28cm. in each direction. All other rectangles of colors shall be 20cm long. The goal must have a net attached in such a way that a ball thrown into the goal cannot immediately rebound out of it.
1:3 The goal area is defined by the goal area line, which is drawn as follows:-
(i) 3 meter long line in front of the goal parallel to and 6 metres away from the goal line and (ii) quarter-circles joining its ends to the goal line, each with a radius of 6 meters measured from the rear inner cover of the goal posts.

1:4 The Free throw line (a nine metre line) in a broken line, where both the segments and the space between them measures 15cm. The line is drawn 3 meters outside, and parallel to the goal area line.

1:5 It is parallel to and 7 meters away from the rear edge of, the goal line, right in front of the goal.

1:6 The goal keepers restraining line (the 4 meters line) is 15cm long. It is parallel to and 4 metres away from 15cm long. It is parallel to and 4 metres away from the rear edge of the goal line, right in front of the goal.

1:7 The center line connects the midpoints of the two side lines.

1:8 Each of the two substitution lines is limited at a distance of 4.5 meters from the center line by a line which is parallel to the center line and extends 15cm. into the court. These lines also extend 15cm outside the court.

1:9 All times on the court are part of the area which they enclose. They shall be 5cm. wide (except as is 1:10) and shall always be clearly visible.

1:10 The goal lines shall be 8cm wide between the goal posts, so that they match the width of the posts (see diagram 2).

### The Playing time

2:1 The playing time for all male and female teams with players of age 16 and above is 2 valves of 30 minutes with a half time break of 10 minutes.

The playing time for youth teams is 2×25 minutes in the age group 12-16 and 2×20 minutes in the age group 8-12 in both cases with a half time break of 10 minutes. For “minis” is (basically children under age 8) the playing time is 2×10 or 2×15 minutes with a half time break of 10 minutes.

**Note:** The cut off dates for the age groups at youth tournaments are announced in the invitations to such tournaments and should be noted.

2:2 The playing time begins with the court referee's whistle for the initial throw off. It ends with the automatic final signal from the public clock or the final signal from the time keeper.

Infractions and unsportsmanlike conduct which take place before or simultaneously with the final signal are to be punished. The court referee and the game only after the necessary free throw or 7 meter throw has been taken and its result has been established. An infraction during the execution of such a throw cannot, however, lead to a free throw in the opposite directions.

**Note:** If a Public clock with an automatic final signal is not available the time keeper shall use a table clock or a stop watch and end the game with...
a final signal If a public clock is used, it should if possible, be set to run from 0 to 30 minutes.

2:3 The team change ends for the second half of the game.

2:4 The referees decide if and when the playing time is to be interrupted and when it is to be restarted.

They give the timekeeper a signal when the playing time is to be interrupted (time-out) and restarted.

 Interruption of playing times is to be indicated to the time-keeper through three short blasts on the whistle and the "T" hand signal.

 The whistle must always be blown to indicate the restart of the game after a time out.

2:5 The throw must be retaken, if the signal sounds when a free throw of 7 meter is being executed or when the ball is already in the air. The immediate result of the retaken throw is to be established before the referees and the game.

Infractions or unsportsmanlike conduct which take place during the execution of such a free throw or 7 meter throw must be punished.

2:6 If the referees determine that the time keeper has given the final signal too early, they must keep the players on the court and play the remaining time.

The team which was in possession of the ball at the time of the premature signal will remain in possession when the game resumes.

If the first half of a game has been terminated too late, the second half must be shortened correspondingly.

2:7 If a game is tied at the end of the normal playing time overtime is allowed following a 5 minute break. A coin toss determines ball possession and the right to choose ends.

The overtime period always consists of 2 halves of 5 minutes. The teams change ends at half-time but there is no half-time break.

If the game is again tied after a first overtime period a second overtime period is played after a 5 minute break and coin toss. This overtime period also has 2 halves of 5 minutes. If the game is still tied, the winner will be determined in accordance with the rules of the particular competition/tournament.

The Ball

3:1 The ball is made of leather or a synthetic material. It must be spherical. The surface must not be shiny or slippery (18:3).

3:2 At the start of the game, the ball used for men or youth (over age 16) must have a circumference of 58-60 cm and a weight of 425-475 grams (size-3). For women, male youth (12-16 years) and female youth (over 14 years) the circumference of the ball must be 54-56 cm and the weight 325-400 grams (size-2)
For male youth (8-12 years) and female youth (8-14 years) the circumference of the ball must be 50-52 cm and the weight at least 315 grams (size 1)
For "minis" (basically under 8 years) the circumference of the ball must be 48cm and the weight at least 290 grams (size 0)

3:3 At every game, there must be two balls available that conforms with the rules.

3:4 Once the game has started, the ball must not be changed unless this becomes absolutely necessary.

3:5 It is obligatory to use official IHF balls, marked with the IHF logo in all international games.

Punishments

Working - Warning can be given for
a) fouls and similar infractions which do not fall under the category of “punished progressively.”
b) such fouls which are to be punished progressively.
c) unsportsmanlike conduct by a player or team official.

Suspension - A suspension (2 minutes) shall be given:

a) for a faulty substitution, if an additional player enters the court, or if a player illegally interferes with the game from the substitution area.
b) for repeated fouls of the type that they are to be punished progressively.
c) for repeated unsportsmanlike conduct by a player, on the court or outside the court.
d) for unsportsmanlike conduct by any one of the officials of a team, after receiving a warning.
e) for unsportsmanlike conduct of a type that is judged to warrant a 2 minute suspension on each occasion.
f) as a consequence of a disqualification of a player or a team official.
g) for unsportsmanlike conduct by a player before the game has been restarted, after he had been given a 2 minute suspension.

Disqualification -

a) For unsportsmanlike conduct by any one of the officials of a team, after they have previously received both a warning and a 2 minute suspension.
b) For fouls which endanger the opponents health.
c) For serious unsportsmanlike conduct by a player or a team official, outside the court, and for repeated unsportsmanlike conduct during a tie-breaker such as 7 meter throw.
d) For an assault by a player before the game or during a tie-breaker.
e) For an assault by a team official.
f) Because of a third suspension to the same player.

After calling a time-out, the referees shall clearly indicate the disqualification to the guilty player or official, and to the time keeper / scorekeeper, by holding up a red cold.

A disqualification of a player or a team official is always for the reminder of the playing time. The player or official must leave the court and the substitution area immediately. Thereafter, the player or official is not allowed to have any form of contact with the team.

The disqualification of a player or a team official, on or off the court, during the playing time always carries with it a 2 minute suspension for the team. This means that the team's strength on the court will, however, last for 4 minutes if a player has been disqualified in the circumstances indicated above.

A disqualification reduces the number of players, or officials, available to the team. The team is however, allowed to increase the number of players on the court again following the expiration of the 2 minute suspension.

A disqualification applies, in principle, only to the remainder of the game in which it is given. It is regarded as a decision by the referees on the basis of then observations of facts. There shall be no further consequence of a disqualification beyond the game except in the case of disqualification due to assault, or when serious unsportsmanlike conduct by a player or team official falls under category a, d or g in classification no.6. Such disqualification shall be explained in the match report.

EXCLUSION -

An exclusion shall be given -:

When a player is guilty of an assault during playing time on or outside the playing court.

After calling a time-out, the referees shall clearly indicate the exclusion to the guilty player and to the timekeeper / scorekeeper, through the prescribed hand signal, i.e., the referee crosses his arms above his head.

Exclusion is always for the entire reminder of the playing time and the team must continue with one player less on the court. If a player who receives an exclusion was already serving a 2 minute suspension or had caused a 2 minute reduction in team strength, then such a suspension or reduction would be incorporated into the expulsion. This means that the only remaining reduction is that which is caused by the exclusion.

The excluded player must not be replaced and must leave both the court and the substitution area immediately. Thereafter the player is not allowed to have any form of contact with the team. An exclusion must be explained by the referees in the match report to the relevant authorities.
Passive Play-
It is illegal to keep the ball in a team's possession without making a recognizable attempt to attack and try to score. (Free-throw awarded to the other team).

Throw-Off
A throw-off is taken by the team that wins the coin toss and chooses to start the game with the ball. Each team must be in its own half of the court with the defense 3 meters away from the ball. Following a whistle, the ball is passed from the center court to a teammate and play begins. Throw-off is repeated after every goal scored and after half-time.

Playing the ball-
A player allowed to run with the ball for 3 steps to hold the ball for 3 seconds- Unlimited dribble with 3 steps allowed before and after dribbling (no double-dribble).

A player is NOT allowed:
- to endanger an opponent with the ball.
- to pull, hit or punch the ball out of the hands of an opponent.
- to contact the ball below the knee.

Defending the Opponent-
A player is allowed to use the torso of the body to obstruct an opponent with or without the ball. However, using the outstretched arms or legs to obstruct, push, hold, trip or hit is NOT allowed. The player attacking player is not allowed to charge into a defensive player.

Throw-In
A throw-in is awarded when ball goes out of bounds on the sideline or when the ball is last touched by a defensive player (excluding the goal-keeper) and goes out of bounds over the end line. The throw-in is taken from the spot where the ball crossed the sideline, or if it crossed the end line, from the nearest corner. All opposing players must stay 3 meters away from the ball.

The Referees
1) Two referees with equal authority shall be in charge of each game. They are assisted by a timekeeper and a scorekeeper.
2) The referees monitor the conduct of the players and team officials from the moment they enter the premises until they leave.
3) The referees are responsible for inspection of the playing court, the goals and the balls before the game starts. They decide which balls will be used. The referees also establish the presence of both teams in proper uniforms. They check the score sheet and the equipment of the players. They ensure
that the number of players and officials in the substitution area is within the limits and they establish the presence and identity of the responsible team official for each team. Any discrepancy must be corrected.

4) The coin toss is undertaken by one of the referees in the presence of the other referee and the 'responsible team official on each occasion, or a team official or a player on behalf of the 'responsible team official'.

5) In principle, the entire game shall be conducted by the same referees. It is their responsibility to ensure that the game is played in accordance with the rules, and they must penalize any infractions. If one of the referees becomes unable to finish the game, the other referee will continue the game alone. (For IHF and continental events, this situation is handled in accordance with the applicable regulations)

6) If both referees whistle for an infraction and agree about the team which should be penalized but have different opinions as to the severity of the punishment, then the severer of the two punishments shall be given.

7) If both referees whistle for an infraction, or the ball has left the court, and the two referees have different opinions as to which team should have possession, then the joint decision that the referees reach after consulting with each other will apply. If they do not manage to reach a joint decision, then the opinion of the court referee will prevail.

   A time-out is obligatory. Following the consultation between the referees, they give clear hand signals and the game is restarted after whistle signal.

8) Both referees are responsible for keeping the score. They also take notes about warnings, suspensions, disqualifications and exclusions.

9) Both referees are responsible for controlling the playing time. If there is any doubt about the accuracy of the timekeeping, the referees reach a joint decision.

10) The referees are responsible for ensuring that the score sheet is completed correctly. Exclusions and disqualifications of the types must be explained in the match report.

11) Decisions made by the referees on the basis of their observations of facts or their judgements are final. Appeals can be lodged only against decisions that are not in compliance with the rules.

   During the game, only the respective ‘responsible team officials’ is entitled to address the referees.

12) The referees have the right to suspend a game temporarily or permanently. Every effort must be made to continue the game before a decision is taken to suspend it permanently.

13) The black uniform is primarily intended for the referees.
Conduct of Tournaments

Competition is an essential part of Physical Education and sports. There are various systems of conducting the tournaments. The aim of the system is to decide the winner. Tournaments provide an opportunity to evaluate / analyse the performance of the team and individual. For this purpose we recommend that each team must play sufficient matches. Basically there are three main systems of drawing the fixtures:-
1) knock out system
2) League system
3) League + knock out system

We strongly recommend the league + knock out system. By this system, team can play maximum number of matches to show their performance and we can decide the true winner.
Guidelines / Tips for Training in Handball

Guidelines / Tips for Training in Handball
To prepare the sportsman for high level of performance, the scientific and systematic tag is very important. To impart systematic and scientific tag following tips are to be followed:-

1) Talent identification and its development:
   Every sports has different requirement for high performance. In Handball we need the following qualities for good talent:
   - Tall long leg & Arm
   - High unanaerobic and aerobic capacity
   - Resistance to fatigue and stress; and
   - Technically and tactically intelligent.
   To identify the above qualities required for Handball players, the scientific and systematic development of talent is very important. Many top talents burn out because of early achievement. Coaches should have patience as tall players need more time to improve the performance.

2) Planning of Training:
   It is very important to develop elements of training systematically. In Handball.
   Technical and tactical try along with motor abilities is co-ordinative abilities, strength etc. as well as the psychological preparation are to be planned in some definite proportion and sequence.
3) **Safety From Injury:**
In Handball the injuries are more compared to other games / sports. Before training the players must be physically and mentally fit. They should know about the training program one day before so that they can protect themselves by wearing suitable equipments.

4) **Test & Evaluation:**
Periodically there should be tests for skills and physical qualities as well as performance should be evaluated in training matches and in competitions.

5) For recreation and relaxation other sports like Basketball, football, swimming and some minor games related to techniques should be played.

6) With passage of time load (physical and psychological) should be increased particularly for strength training.

7) Coach must pay individual attention during the training because all players are not equal standard in training to take the load or to carry out the tactics.

8) In training proper attention must be paid for warming up and cool down.

**Specific Fitness**
Playing Handball matches is a specific fitness training at sub Junior and Junior level. Keeping in mind the loading factor.

**GENERAL FITNESS**

**Introduction**
General fitness is the fitness done on both non sportsperson and athletes.

For non-sports persons, the general fitness is mainly to maintain physical and mental fitness. For athletes general fitness is very much important to perform the main task and be ready for the specific.

It consist of warming up where warming up is done to heat up the body to ready for the other task.

For Handball, general fitness is very much important to loosen the joints and to stretch muscles to prevent injuries.

General fitness can be improved by using the fine motor abilities such as strength, speed, endurance, flexibility and co-ordinative abilities.

1) **Strength**
   It is the ability to do any kind of wrote-out against the resistance some of the main types of strength are:
   (a) General strength, (b) maximum strength and (c) explosive strength
(a) **General Strength**: It is the strength where we do the workout against normal resistance.

e.g.: daily routine workout, jogging, walking etc. It is not specific for handball games. It is mainly done by non-sports persons.

(b) **Maximum strength**: Doing any kind of workout against the maximum resistance is called maximum strength.

To improve maximum strength, given below are the methods of training:

(i) Repetition Method

- Set → 3 - 7 set
- Repetition → 10 - 30 times
- Recovery → Complete 2 - 3 Sec.
- Intensity → low
- Volume → medium

(ii) Internal Method

- Set → 3 - 7 set
- Repetition → 15 - 35 times
- Recovery → Incomplete
- Intensity → Medium
- Volume → Medium

This ability is required for making the best for specific motor ability which is used in Handball.

(c) **Explosive Strength**: The ability to do workout against the resistance with high speed.

It can be divided into three parts. There are: (i) start strength, (ii) speed strength and (iii) strength speed.

(i) **Start strength**: The ability to develop the maximal muscle force during the starting phase of the movement.

(ii) **Strength speed**: The ability to overcome heavy resistance with high speed. Also known as power.

(iii) **Speed strength**: The ability to overcome lower resistance with high speed.

**Methods to develop**:

a) **Internal Method (intensive)**

- Set → 3 - 7 set
- Repetition → 10 - 15 times
- Recovery → 90 - 100 Secs.
Intensity → Medium 70-75%
Volume → Low

b) Using special competitive exercises with change resistance.

**Exercises to improve general strength**:
Bench exercise, Multi gym exercises with light weight and high speed on body weight, exercise with high speed and less repetition.

2) **SPEED**:
The ability to cover a certain distance with a minimum possible of time.

(i) **Acceleration Ability**: It can be improved by directly or indirectly improving explosive strength technique and flexibility.

(ii) **Speed Endurance**: It can be improved significantly through speed in training when we are under condition of fatigue over a certain distance with a minimum possible of time.

**Methods to improve**:
- Intensive internal method
- Repetition method

3) **ENDURANCE**
The ability to use the sports movements with the desired quality and speed under condition of fatigue.

**Types**:
1) **According to nature of activity**
   a) **Basic Exercise**: It is the ability to do sports movements of general nature under condition of fatigue. It is the combination of aerobic and unaerobic metabolism.
   b) **Specific Endurance**: Ability to do sports movements of a particular sports under condition of fatigue.

4) **FLEXIBILITY**
Flexibility is the ability to execute the movement with greater amplitude or range. Flexibility is very important for Handball players.

**Two types of Flexibility**:
(i) Passive Flexibility: Ability to do movement with greater amplitude with external help.
(ii) Active Flexibility: Ability to do movement with greater amplitude without external help.

**Methods for improvement of Flexibility:**

(i) Ballistic Method: In this method the joint is stretch rhythmically to its minimum range. The stretching movement is done with a swing.

(ii) Slow stretch and hold method: In this method the joint is slowly stretched to the maximum unit and is held for few seconds before returning to normal position. For best result, the stretch must be held for a maximum of 3-8 secs. longer duration do not increase the effect.

(iii) Pos Isometric method: This method is based on the principle of proprioceptive neuro muscular facilitation. According to this principle the muscles are contracted maximally for a few seconds, and stretched to give very low resistance. This procedure is to be repeated 4-8 times for 8-10 secs.

**Co-ordinative ability**

Co-ordinative ability are primarily dependent on the motor control and the regular process on Central Nervous System (CNS). The movement quality depend to a great extent on coordinative abilities.

The rhythm flow accuracy, constancy, amplitude of a movement are expressions of motor coordination and highly dependent on coordinative ability.

**Some of the co-ordinative abilities**

i) **Differentiation ability**: The ability to achieve a high level of fine tuning and harmony of individual movements. It finds expression in high degree of accuracy and movement economy.

ii) **Reaction ability**: It is the ability to react quickly or effectively to a signal. In sports, signal can be of different type visual, tactile and acoustic.

iii) Orientation ability

iv) Balance ability

v) Rhythm ability

vi) Coupling ability

vii) Adaptation ability

Some examples of Co-ordinative abilities exercises

i) Variation in movement execution, exchange in starting or end position.

ii) Variation in external conditions, ex-change in the surface.

iii) Combination of movements, ex-running and throwing.

iv) Practice against time, ex- Agility runs, reaction exercises.
Technique and tactics of Individual Player :-

The players of a team having in possession of the ball are classified by the team "Attackers." All players of this team are offensive players. All measure taken by a team without the ball are classified by the team "defence". All players of this team are defensive players or defenders.

The level of development of the technique and of the individual tactics mainly depend on:-

a) the rule which permit or forbid.
b) the atomic - physiological. Pre conditions as constitution (length of fingers, body height) temperament.
c) the moral qualities and will power.
d) the theoretical knowledge (Intelligence of Players)
e) the conditional and coordinative capacities.
f) the influence of the opponents tactics (counter attack)
g) the outer conditions (floor, ball)

The basic technique of the Handball game is simple. So it is mainly performed with the most skilled port of the body of man the Hand. Offensive techniques are as under :-

**To catch** : To catch high balls (at chest height, head height, reaching height, jumping height)

The ball receiving player must be positioned in such a way that the opponent has no chance to disturb the reception of the ball. The ball must be protected
immediately while catching between chest and jumping height and the arms. With relaxed elbow joints, approach the ball. The fingers are slightly spread, the thumbs directed towards each other. This position of the hands and fingers it is avoided to loose the ball, particularly, a sharp ball. The hands form a funnel, offering a large surface to the ball. In case of very sharp ball it is recommended to block the impetus of the throw with the whole body, additionally to relax the arms.

**Occurring Mistakes**
1) Too stiff reception of the ball, no "cushioning"
2) Wrong position of the hands and fingers, the ball can fly through the hands.

**Pass :**
With the help of passes the ball is played in order to get a favourable position for throwing on goal. The quality of the passes characterizes the level of development of a team. With well timed and correct passes the ball flies faster than the fastest player is able to run. The team work which must never end in itself is aimed at creating as soon as possible throw on goal situations. The passes can be performed according to the situation of playing on the basis of the following tactical principles:

**Sharpness :**
Soft pass (long pass incase of counter attack) sharp pass (to pass directly to the team mate, avoid the deflection of the ball by the opponent, to the circle players)

**Distance :**
Short pass (to the circle players, to other constructive players)

**Long pass (to change the side)**

**c) Direction** : steep, diagonal, cross - to the front - to the near; near the defence soft cross passes are to be avoided. A free player gets the pass directly, a closely marked player in the backward area. A player "Breaking-through" and "Running for an open-space" into his 'race' with consideration of his speed.

**d) Height** : In general the ball should be passed at head height, sometimes it is useful to pass the ball as a lob or as a tipping pass (indirectly, first tipped on the ground) through the line of defenders.

**e) Time** : Fast pass to drive the opponent-delayed pass to get time.
Weather: Against the wind, the ball is passed to the next free team mate. The flight direction of long passes can be changed by the wind, or met and rough ground tipped pass should be avoided. Each pass bases upon correct running for an open space, success is lost if the teammate runs for an open space too late or too early or if the pass is too late or too early. That’s why all team mates should always look to the ball possessing players and be always able to receive the ball. The throwing or passing player is responsible for the correct pass.

Straight Shot (with one hand)
The Straight shot is the most important and safe throw of the handball game. It is applied for passes as well as for throws on goal. The straight shot can be performed with and without blocking step.

Straight Shot with blocking step
The straight shot with blocking step (straight shot with approach) is mainly applied on longer distances and for throws on goal.

Course of movements
The ball in both hands of the player is moved up to shoulder height or so. The ball lies only in one hand. For a short moment, here it is not necessary to hold the ball firmly. The elbow is bent, the calming directed inclined upward.

During this swinging movement the right-hander has his right foot in front (and opposite for the left hooker) immediately afterward the other foot is in front. The left blocking foot is slightly turned to the inside. The trunk is strongly twisted so that the axis of the body is cross-wise towards the hip. The fast and strong turn of the body to the front (to solve the torsion) and the blocking movement of the left leg in connection with the shot like arm pull during the further course of the movement cause the sharpness of the shot. The right leg emphasizes the forward movement of the right hip. After the ball has left the players hand, the right foot contacts the floor. The swinging movement comes to its end and the throwing arm continues the swinging movement up to the left side of the body. In the final phases the upper part of the body is bent. But the eyes are still directed to the ball.

Straight short without blocking step:
The straight shot without blocking step (straight shot while running) is applied for passes in all situations of playing (as a throw on goal) at full of running. In case of movement it is faster than that of the straight shot with blocking step, but its sharpness is less. The maintenance of the speed of running during and after that throw is thought to be advantageous.

Course of Movement:
The ball in both hands of the player is moved up to the shoulder or read height (individually different) from shoulder height on or so the ball is only moved by the throwing hand.
The swinging movement starts when the right leg steps forward so that the very shot like throwing movement is performed while the left leg steps forward (right hemder). The left leg does not perform a blocking movement. Due to the running movement (forward), the torsion of the hip is very weak. That is why the hip cannot he turned back very much while running quickly (is valid for the right shoulder, too).

Before the very arm pull the ball lies in the open throwing hand (do not hold with the fingers). After the shot like throwing movement the throwing arm should not continue the swinging movement too much up to the opposite side of the body. This would greatly favour the bending of the upper part of the body. If the body is too much bent after the throw it is impossible to continue the normal movement of the foot position corresponds to the normal running movement.

**Occurring Mistake :**

1) The arm pull is too long and is not continuously linked with the running movement.

2) While throwing the head is inclined towards the opposite side of the throwing arm. Before throwing the ball is kept too far away from the body.

3) The upper part of the body is inclined too much to the front.

**Jump shot :**

This throw is a straight shot while jumping. While jumping the player can escape from the defenders action.

**Jump shot (long) :**

Jumping serves to escape from the defenders in order to throw without disturbance. That is why the jump is extended. The players mostly jump over the goal area line, thus, decreasing the distance to the goal. The throw can be delayed till shortly before the landing performing from the outer positions the direction of throwing improves the angle of throwing additionally.

**Cause of movement**

The player should approach as far as possible in a curve towards the direction of throwing towards the side of the throwing arm. In doing so, the shoulder of the throwing arm is already turned somewhat backward so that the swinging movement is well prepared. The take off points is roughly calculated. The right hander always takes off with the left leg. During the flight phase, the upper part of the body should be inclined to the front, left in order to have the centre of gravity above the supporting area and thus to facilitate the landing. While flying, the ball should be thrown as soon as the player has passed the highest point. It
is advantageous to turn the body as for the straight shot, but not so strong on the floor. The player should always land on the left leg, the take off leg, the other leg follows quickly so that he can continue to run.

**Occurring Mistake:**
1) At the beginning the approach is too steep so that the shoulder of the throwing arm must be turned too much backward in the flight phase, but as soon as this throw is mastered this should not disturb any more.
2) The approach steps are too long or they are like dribble steps.
3) Wrong take off leg, wrong landing leg.
4) No longer take off
5) The body is not hanging in the air but sitting. It is different to catch a swing.
6) The shoulder of the throwing arm is not pulled backward since the throw is too weak.

**Jump Shot High**
It is a straight shot over the head while jumping. While jumping the attacker tries to turn on goal over the defender. The advantage of this throw is the surprising moment and the obstructed view of the defender.

**Course of Movement:**
The right hander approaches the goal line in a curve. He takes off with the left leg, the last approach step is somewhat longer. The jump must be very high. At the point of reversion the ball is thrown with a possibly highly extended arm. The landing is on the take off leg. If it is impossible to throw over the defender, the thrower has still the chance to throw the ball sideward of him. The only change of the course of movements is that now the arm pulls in an unfixed direction.

It must be said, additionally, that some pre conditions must exist for the jump shots. The players should already master the straight shot before he starts to practice the jump shot.

**Fall shot:**
The fall shot shows similar conditions as the jump shot the attacker wants to escape from the action of the defender. This throw is performed at the goal area, thus the throw is nearer to the goal and can delay the throw till shortly before the landing by reacting on the goalkeeper action. The fall shots can be performed forward, sideward and backward. The exact classification of fall shot depends on the preparing falling movement of the body.
Fall shot Forward
It is frequently applied to perform the penalty shot but also from the centre circle position.

Course of movement
This throw a straight shot while falling without approach. The feet take a comfortable squat position. The ball lies in both hand infront of the body on the side of the throwing arm. The eyes look to the target. Falling is prepared by pushing the knee forward. At the same time the shoulder of the throwing arm is moved backward and the swinging movement begins. The body is falling forward. While falling, the ball is thrown. It is a straight shot at head height. The landing is prepared by supporting on the left hand. Shortly after that the right hand touches the floor. After a short support the player falls on to the right side of the body. The knees should not contact the floor.

Occurring mistake :
1) The ball is thrown before falling
2) The shoulder of the throwing arm is not towards backward and the throw is only performed by the arm.
3) The thrower lacks only to the landing place and shot to the goal.
4) While falling, the thrower does not stretch the legs and hands on the knees.
5) The thrower lands in a press up position without falling on the floor.

Side Fall Shot
Contrary to the fall shot forward, the side full shot is a long shot, throwing the ball sideward of a defender. Thus the direction of falling and throwing are not the same any more with the fall shot forward, because the right hander falls to the left, in order to throw to the front passing the defender.

The approach is directed towards the defender. The shoulder of the throwing arm is withdrawn very much so that the axis of the shoulder is directed towards the goal, while catching the swing the player bends back at the same time the falling movement is backward, towards the court, now the body is quickly turned to the goal and the ball is delivered by pulling the arm over the head.

As with the side straight shot due to turning the wrist the ball finally influences the height and direction of throwing. Only near the floor the ball leaves the hands so that the player lands on the left side of the body.

Jump Fall shot :
Not in all situations it is necessary to fall in order to escape from the radius of action of the defensive players. It is more effective to apply combination of the jump shot and the fall shot. After preparing falling movement the player takes off. This artistic performance is concluded by
the landing which is as with the fall shot always on the body and not on the feet as with the jump shot. All kinds of the fall shots can be performed as a jump fall shot. A stronger take off is favourable and the ball can be delivered with full concentration. The throwing arm with the ball is lifted after the ball has been protected during the jump against the action of the opponent. The right hander land on the left side of the body. Thus, the jump fall shot is developed in the race. One to three approach step can be performed. By that the take off becomes stronger and the measures will be possible.

Occurring Mistake:
While taking off the ball is insufficiently protected before the throw the shoulder of the throwing arm is not directed upward the ball is only pushed. The reaction of goal keeper is not considered.

Dribbling:
Dribbling is only applied if no team mate is free to be passed. the ball flies more quickly than a player is able to run. That is why dribbling slows down the offensive play.
If the way to the goal is free, the player should dribble with full speed to the throw on goal position and throw. Tipping the ball with catching the ball ends the dribbling. Therefore after at least three step or three second the ball should be passed or thrown on goal. Dribbling can be performed in such a way that the firm holding of the ball is delayed by bouncing the ball permanently with the hand. The rebounding ball is stopped with the hand. The finger's adapt to the round shape of the ball and it is pushed again down to the floor. The lower arm and hand mainly perform this movement. An indoor hand ball player must be able to direct the ball with the right as well as with the left hand. Being unmarked the player should dribble with the ball at any height near to a defender at hip height and deeper.
In a tussle the players body should be between the ball and the opponent.
Dribbling is mainly applied in an individual counter attack. Near to the own goal the player intercepts the ball, covers the centre while sprinting with the ball and throws. The faster the player, the longer must be the distance of the ball being tipped to the front on to the floor.

Frints
Frint are an effective means to direct the opponents movements into another direction and divert him from the action intended. In the Indoor hands all game frints are after applied to gain area for passes throws on goal and for playing around. All courses of movements and actions as passes throws on goal and playing around (excluding the reception of the ball in handball, in football it is
more effective) are performed by the offensive players bring in possession of the ball, but the offensive players without ball perform such courses of movements as standing, starting, jogging, sprinting, stopping, terming as effective frinting maneuvers. Changes of the direction and of the speed are the typical characteristics of frints.

Frequently applied frints slow down the game, thats why it has to be taken into consideration that a fast pass to a team-mate on a more favourable position should be preferred to the individual action with frinting maneuvers consist of two action. The first action is the frinting movement. It should be will pronounced and should not show that it will be stopped in the moment of the defenders reaction.

That why it should be performed relatively quickly in order to give time to the defender to react on the frint, and the player himself should have a better possibility to change to the next course of movements. The record action can be characterized as a consequential action. It must be performed with high speed, in order to make best use of the wrong reaction of the defensive player. Normally it will be performed according to the intention of the forward. But the situation might change so that the previous intention of the forward must be change too. Thus the intended throw on goal might be performed as a pass or vice versa. Finally it is possible to step the frint.

**Technique of Goal keeper**

A good goal keeper can decisively influence the game during critical situation he is able to encourage his team by defending safely so normalising the game. He prepares successful attacks with the help of placed throw-off on the other hand the opponent get nervous does not realise his tactical plan, if promising goal chances are defeated by the goal keeper.

**Technique of Goal Keeper**

1) **Basic Position** : In the centre of the goal post in front of the goal post. The knee slightly bent, both the legs equally loaded. The hands are fixed opened. Their position should be loose and released.

2) **To defend with the hand** : The ball flying high into the corner. One hand is like a flash pushed or pulled into this corner.

3) **To defend with the feet** : Only seldom the goal keep is able to defend flat ball by jumping for the ball. The goal keeper defend flat throws into the corner of the goal with the feet.
4) **To defend with the trunk:** It happens that the ball directly flies towards the trunk of the goal keeper.

5) **To defend while jumping:** The jumping "goal keeper" uses this element very often. To defend a high on flying ball with the right hand the goal keeper in the initial or basic position steps the foot to the right by turning it so for that the toes are directed into the direction of jumping with the help of this intermediate step the ball can be reached while taking off explosively.

6) **Combined Defence:** In this goal keeper defend the middle high ball (waist high) stop it by using leg or Hand is a combined defence.

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Scoring Method

SCORING

A goal is scored when the entire ball has crossed the entire width of the goal line, provided that no infraction of the rules has been committed by the thrower or a team-mate before or during the throw.

- A goal shall be allowed if there is an infraction of the rules by a defender but the ball still goes into the goal.
- A goal cannot be awarded, if the referees or the timekeeper has interrupted the game before the ball has completely crossed the goal line.
- A goal shall be awarded to the opponents, if a player plays the ball into his own goal, unless the ball had previously crossed the outer goal line.

A goal which has been awarded can no longer be cancelled, once the referee has blown the whistle for the subsequent throw-off to be taken.

The team which has scored more goals than the opponents is the miner.
The game is tied if both teams have scored the same number of goals or no goals at all.