

FIELD HOCKEY



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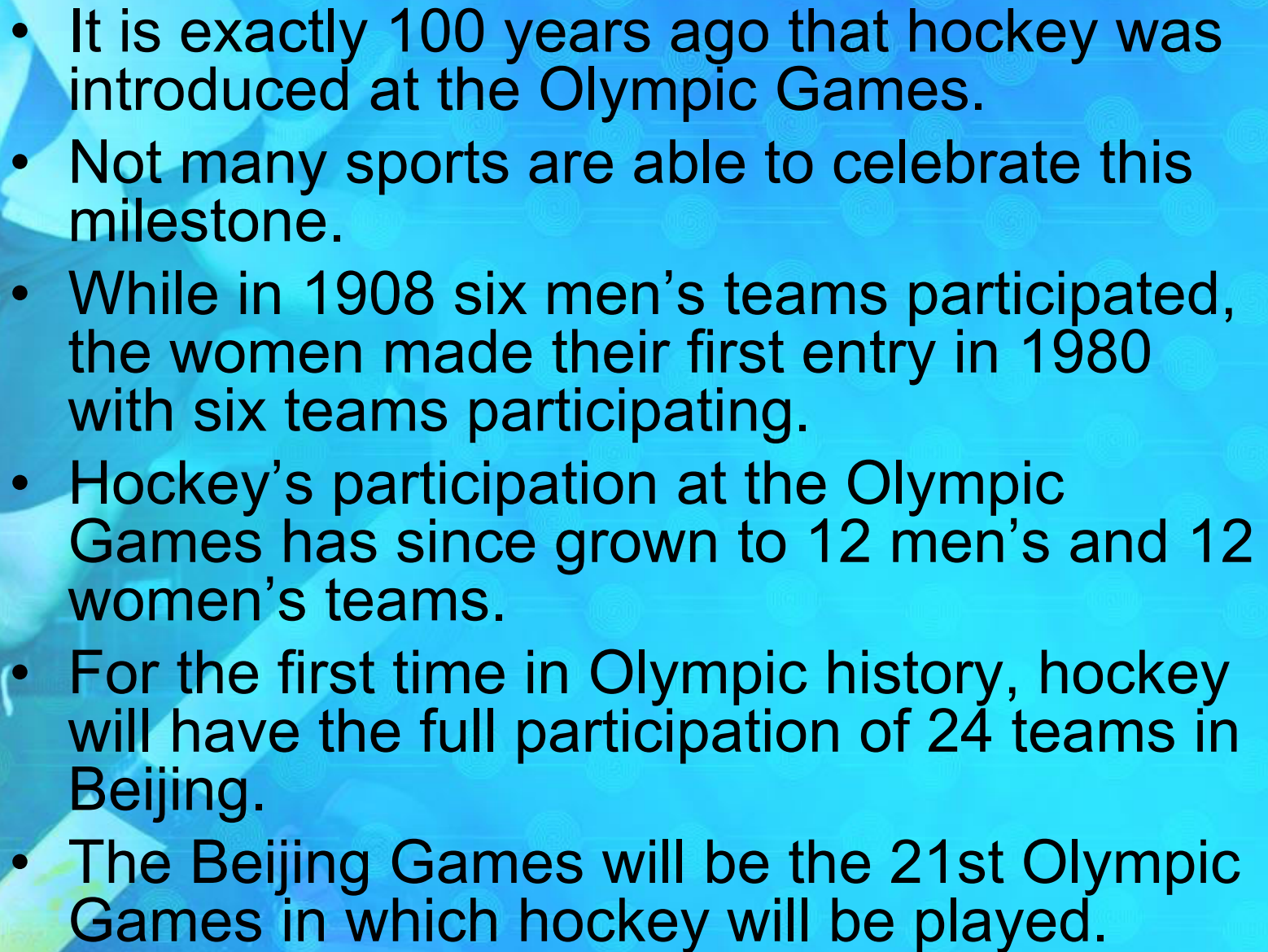
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Field Hockey - History

- Hockey celebrates 100 Years at the Olympic Games in 2008 after hockey was introduced at the 1908 Olympic Games in London.



Action at the 1928 Olympic Games in Amsterdam

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- It is exactly 100 years ago that hockey was introduced at the Olympic Games.
 - Not many sports are able to celebrate this milestone.
 - While in 1908 six men's teams participated, the women made their first entry in 1980 with six teams participating.
 - Hockey's participation at the Olympic Games has since grown to 12 men's and 12 women's teams.
 - For the first time in Olympic history, hockey will have the full participation of 24 teams in Beijing.
 - The Beijing Games will be the 21st Olympic Games in which hockey will be played.

Men:

1. Germany
2. Spain
3. Australia
4. Netherlands
5. G. Britain
6. Korea
7. N. Zealand
8. Pakistan
9. Belgium
10. Canada
11. China
12. S. Africa



Women:

1. Netherlands
2. China
3. Argentina
4. Germany
5. Australia
6. G. Britain
7. Spain
8. USA
9. Korea
10. Japan
11. S. Africa
12. N. Zealand

2008 – Player of the year Award

- The winners will be announced during a special awarding ceremony, which will take place during the FIH Congress Dinner in Los Angeles, USA on Friday 28 November 2008.



2007 – Player of the year Award

- Luciana Aymar (ARG) won the Women's Player of the Year Award for the fourth time in her career.
- Australian Jamie Dwyer was crowned Men's Player of the Year in 2007.

How many types of hockey is there?

- **Field Hockey**
- **Indoor Hockey** - Field Hockey Indoors
- **Mini Hockey** - Field Hockey with a minimum of 5 players on each team including Goalkeeper.
- **Ice hockey**
- **Inline hockey** (Single Bladed Weels)
- **Roller Hockey** (Quad Wheels)
- **Street hockey** - (played the same as ice hockey with the same gear (excluding inline skates) but usually on a street or other paved area [not recommended to play in traffic])
- **Unicycle Hockey**
- **Uni Hoc** - Played with plastic sticks (both sides flat) and plastic hollow ball as an introduction to hockey also known as Floor Ball or Floor Hockey
- **Bandy** - in some ways field hockey on ice
- **Power Hockey** - a form of hockey played in electric wheelchairs for disabled people
- **Underwater Hockey**
- **Shinty** - Scottish form of hockey played in the highlands
- **Hurling or Camogie** - there are some resemblance to Hockey

FIELD HOCKEY STICKS



Dom Supersafe 36" Field Hockey Stick (EA) - Orange

THESE **STICKS** ARE BUILT TO LAST!
Each **stick** is made of the finest polyethylene shaft, uniquely oval-shaped to provide better and safer **stick** control.



Grays Surf 500 Field Hockey Stick

Grays' Surf 500 composite **field hockey stick** is perfect for younger beginners.

Hockey Stick Types

➤ **Wood:**

Wooden sticks are the cheapest on the market and allow you the most options in modification by cutting down the shaft, sanding the blade etc.

These modifications allow you to customize your stick for comfort ability.

Wood sticks tend to break easier and are heavier and stiffer than composite brands. The wood may also bend or warp after extended use.

➤ Composite:

- These sticks are now used by about 85 percent of NHL players. They come in one piece or two piece sticks, with a shaft and replaceable blades. They are much lighter and more flexible than wood sticks but are more expensive. There are currently many companies that will also custom make a stick for you. The main problem with composite sticks is their tendency to break. Remember they are built to shoot the puck harder not for longevity.

➤ Types of composite:

- **Fiberglass**

Fiberglass sticks are generally wooden sticks which are reinforced by fiberglass wrapping or coating. They can be modified like a wooden stick. While they are the least expensive of composite sticks they are also the weakest and heaviest.

- **Aluminum**

Aluminum sticks were the first popular non-wood sticks to hit the market. The shafts are made entirely of aluminum and replaceable wooden or composite blades are inserted into the shafts. These sticks are stronger and lighter than wood and fiberglass but not as strong or as light as graphite and Kevlar. Compared to other composite sticks they are relatively inexpensive.

- **Graphite**

Graphite can be used to reinforce or coat wooden sticks, mixed with Kevlar to form a shaft or can be used on its own to form a stick. Graphite is more expensive than fiberglass and aluminum, but less expensive than Kevlar and titanium.

- **Kevlar**

Like graphite sticks, Kevlar may be mixed with another material or used on its own to form a stick. Kevlar sticks are costly but one of the strongest and lightweight on the market.

- **Titanium**

These sticks are similar in most ways to Kevlar sticks except titanium sticks are usually not mixed with any other materials.

Hockey Stick Sizing

- Find a hockey stick that is comfortable for your own personal style of play.

Five components of a hockey stick:

- The height
- Weight
- Curve pattern
- Stiffness and
- Lie of the stick

Goalies

- Goaltenders must also make sure they are using the proper size hockey stick.
- Goalies have fewer options when choosing a stick as they are heavier and larger than regular sticks.
- Goalie sticks are made of wood and are usually reinforced by fiber glass or Kevlar.
- Most goalie sticks have polyurethane foam-injected paddles.
- Goalie sticks can be purchased with curved blades, so ensure the blade is to your liking.
- When searching for the right length stick a goalie may be better off cutting down the shaft to give him or her the exact length they need.

Hockey Stick Height

Most come in two sizes:

- Junior hockey sticks and senior hockey sticks.
- **Junior sticks** are approximately 46 - 54 inches long and
- **Senior sticks** are usually between 56 - 63 inches long.

Hockey Stick Regulations

- No hockey stick shall exceed sixty-three inches (63") in length, from the heel to the end of the shaft; nor more than twelve and one-half inches (12½"), from the heel to the end of the blade.
- The blade of the hockey stick shall not be more than three inches (3") in width at any point; nor less than two inches (2").
- All edges of the hockey blade shall be beveled.
- The curve must not exceed one half inch at any point on the blade.
- If it does, it shall be deemed an illegal stick and a minor penalty will be called against the player.
- However, in the NHL, there is no rule regarding the curvature sticks in a penalty shootout.

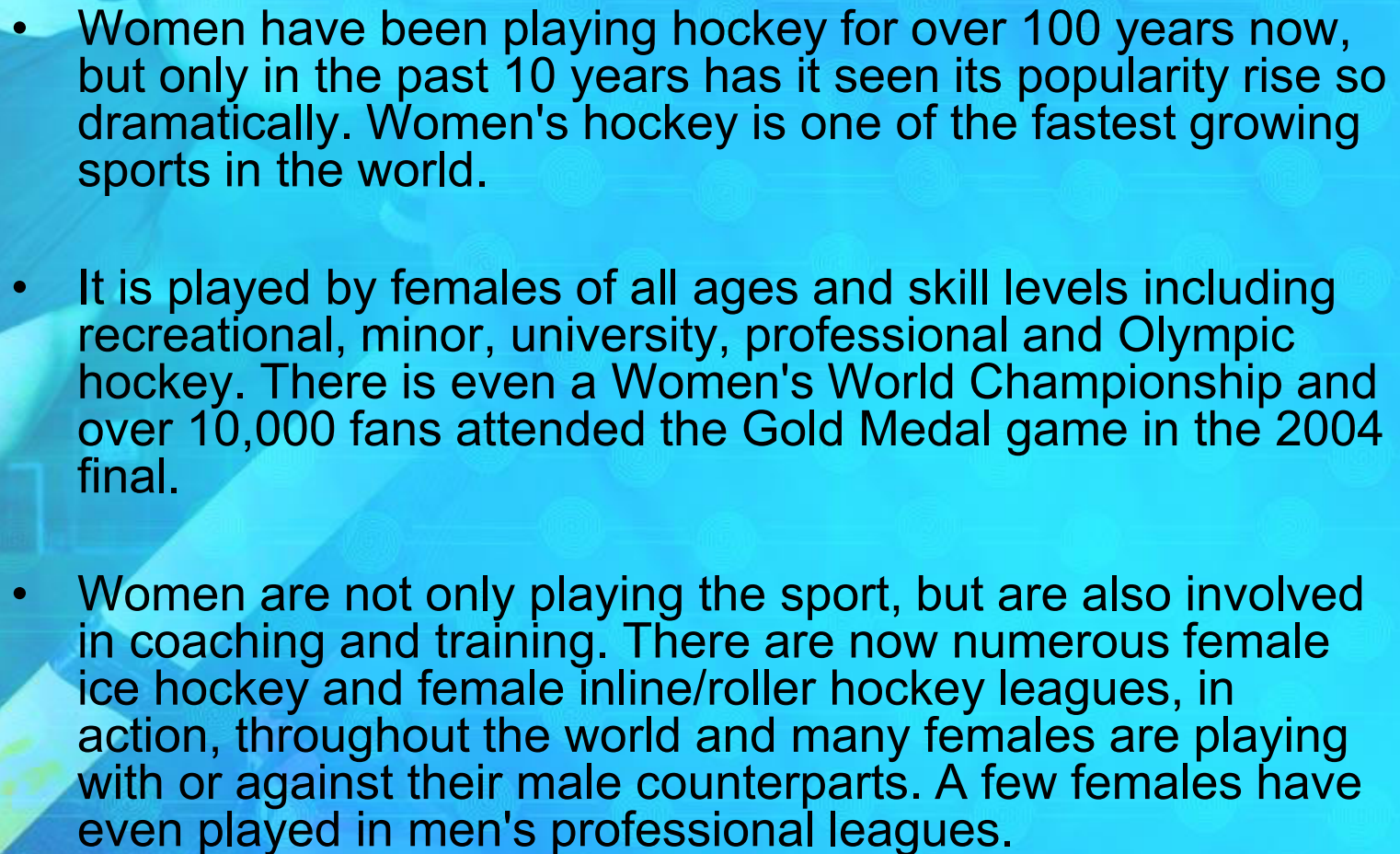
Goalie Sticks

- The blade of the goalkeeper's hockey stick shall not exceed three and one-half inches ($3\frac{1}{2}$ ") in width at any point, except at the heel, where it must not exceed four and one-half inches ($4\frac{1}{2}$ ") in width; nor shall the goalkeeper's stick exceed fifteen and one-half inches ($15\frac{1}{2}$ ") in length from the heel to the end of the blade.
- There is no measurement of the curvature of the blade on the goalkeeper's hockey stick. The widened portion of the goalkeeper's stick, extending up the shaft from the blade, shall not extend more than twenty-six inches (26") from the heel and shall not exceed three and one-half inches ($3\frac{1}{2}$ ") in width. A goalie stick must also have a knob at the end of the handle that's no less than $\frac{1}{2}$ inch thick.

Women's & Girls' Hockey



It's not just a man's game

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- Women have been playing hockey for over 100 years now, but only in the past 10 years has it seen its popularity rise so dramatically. Women's hockey is one of the fastest growing sports in the world.
 - It is played by females of all ages and skill levels including recreational, minor, university, professional and Olympic hockey. There is even a Women's World Championship and over 10,000 fans attended the Gold Medal game in the 2004 final.
 - Women are not only playing the sport, but are also involved in coaching and training. There are now numerous female ice hockey and female inline/roller hockey leagues, in action, throughout the world and many females are playing with or against their male counterparts. A few females have even played in men's professional leagues.

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- The rules for female hockey are basically the same as male hockey, however most female leagues do not allow body checking.
 - There are numerous websites on female hockey all with links to many other sites. For more information on female hockey check out some of the sites below:
 - www.canadianhockey.ca
 - www.whockey.com
 - www.nwhlhockey.com
 - www.ncaasports.com/icehockey/womens
 - www.usahockey.com
 - www.IIHF.com
 - www.olympic.org

Hockey Grounds – Types

- Synthetic (Astro) Turf
- Clay/Mud/Grass

INDIAN HOCKEY

- Hockey in India
- History of Hockey in India
- Indian Hockey Federation
- Premier Hockey League India
- Hockey Stadiums in India
- Hockey Tournaments in India

Hockey in India

- India's national game, **hockey** lags far behind cricket and other games in the popularity stakes.
- The Indian team failing to keep pace with vastly improving European rivals.
- With success being far and few between, hockey is losing out to other popular sports that have brought India international success.

History of Hockey in India

- Field hockey-evolved in the British Isles in the 19th century.
- Hockey was introduced in India by British Army regiments and the game soon found favour among the native Indians. The first hockey club in India came up in Calcutta in 1885-86 and soon Bombay and Punjab followed suit.
- Making its Olympic debut at the 1928 Amsterdam Games, Indian hockey team cruised home to its first Olympic gold without conceding a single goal. The hallmark of this ruthless domination was the wizardry of Indian hockey legend Dhyan Chand who mesmerized the Amsterdam crowd with his dazzling skills.
- From 1928 to 1956, the Indian hockey juggernaut won six straight Olympic gold medals while winning 24 consecutive matches. This was the golden era of Indian hockey when India loomed large in world hockey and produced some of the finest players the game has ever seen.
- The Indian stranglehold over the Olympic hockey gold came to an end when Pakistan defeated India in the final of the 1960 Rome Olympics.



Indian Hockey Federation (IHF)

- IHF is the central administrative body for the game of hockey in India.
- The All India Hockey Federation was formed in 1925 with Colonel Bruce Turnbull as President and M. S. Ansari as Secretary. The Federation held its first National Championships at Calcutta in 1928.
- The IHF seeks to promote, encourage and develop the game of hockey in India and holds a number of inter-member tournaments and National Championship Tournaments.

Premier Hockey League (PHL) India

- PHL is a joint project of ESPN-Star Sports, Indian Hockey Federation (IHF) and Leisure Sports Management and is modelled on the U.S. NBA league.

Hockey Stadiums in India

- The hockey stadiums in India are equipped with synthetic turfs and spectator friendly amenities.

Major hockey grounds in India:

- Mayor Radha krishnan Stadium, Egmore, Chennai.
- Major Dhyan Chand National Stadium, Delhi.
- Gachibowli Stadium, Hyderabad.
- K. D. Singh Babu Stadium, Lucknow.
- Surjeet Hockey Stadium, Jalandhar.

Hockey Tournaments in India

- The Indian hockey tournaments are played throughout the year and are conducted under the aegis of the Indian Hockey federation.

Major hockey competitions in India:

- All India MCC Murugappa Gold Cup Hockey Tournament
- All India Agha Khan Hockey Tournament
- All India Lal Bahadur Shastri Hockey Tournament
- All India Beighton Cup Hockey Tournament
- Obaidullah Khan Gold Cup

Famous Indian Hockey Players

- Ajit Pal Singh
- Balbir Singh Sr.
- Dhanraj Pillay
- **Dhyan Chand**
- Gagan Ajit Singh
- K. D. Singh Babu
- Leslie Claudius
- Mohammed Shahid
- Udham Singh

DHYAN CHAND - Hockey Player



- **Dhyhan Chand** helped his country in winning gold medals in hokey in 3 successive Olympics games:
- **Amesterdam Olympics (1928)**
- **Los Angles Olympics (1932) and**
- **Berlin Olympics(1936)**
- He was the captain of the gold medal winner Indian Hockey team in the historic 1936 Berlin Olympics.
- **Dhyhan Chand** scored 101 goals at the Olympic games and 300 goals in other international matches and his record is unbroken.
- **Dhyhan Chand** had a wonderful command in wielding the hockey stick and this earn him the title "**Hockey Wizard**".
- India won one gold medal in Hockey at Amersterdam Olympics and out of a total of 28 goals scored by Indian hockey, 11 were scored by **Dhyhan Chand** alone.
- Born on 29th August 1906. He died on December 3,1979.

Hockey Rules: 2007 - 2008

- Introduction
- Terminology
- Playing the Game – Officiating the Tie Breaking
- Umpiring
- Field and Equipment Specifications

❖ Hockey Rules - Introduction

»TWO YEAR RULES CYCLE:

»This edition of the Rules of Hockey represents a move to a two-year cycle for the production and publication of the rules of the game.

»In some ways, a two-year cycle was already in place because significant changes were not introduced in the periods leading to each Olympic Games and Hockey World Cup.

»By formalising this cycle, the Hockey Rules Board (HRB) is also acknowledging that it is better to allow a slightly longer period between rules changes for any such changes to be evaluated and reviewed.

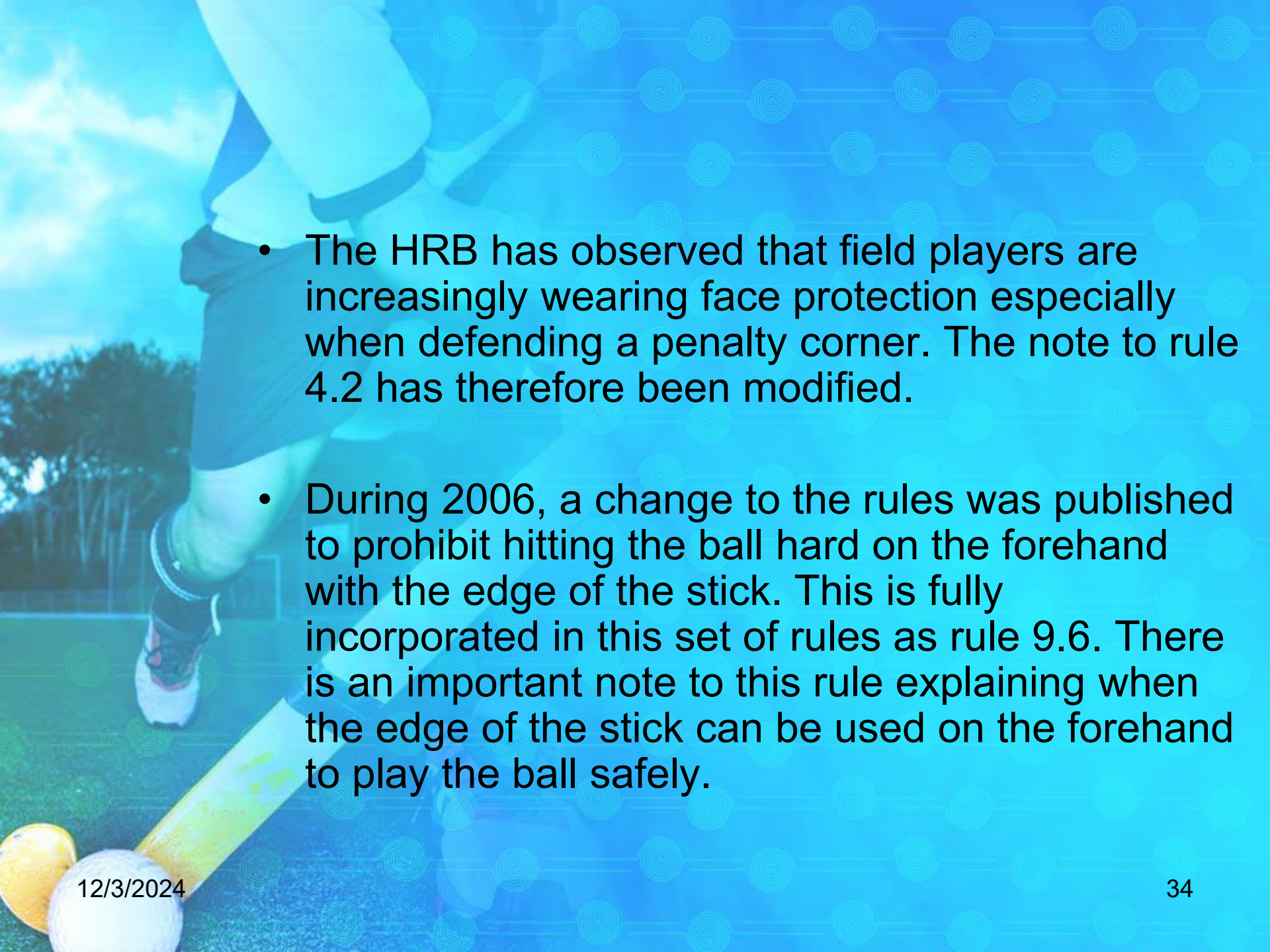
»This set of rules therefore applies for the period 1 January 2007 to 31 December 2008 at international level. As before, National Associations have discretion to decide the date of implementation at national level.

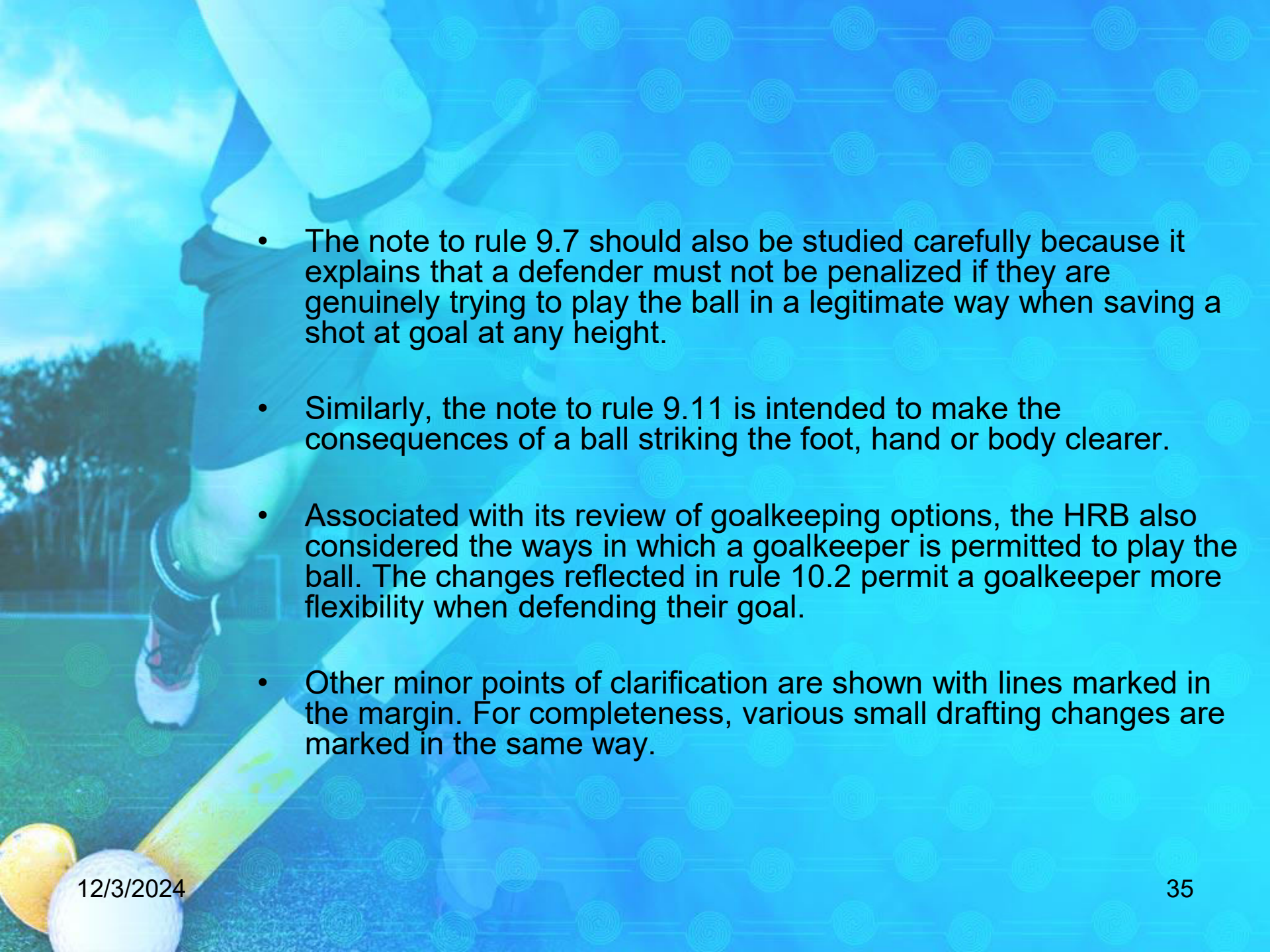
»The HRB will avoid publishing changes during the two year period but in exceptional circumstances retains this right. Any such changes will be notified to National Associations and published on the International Hockey Federation's (FIH's)

»**website : www.worldhockey.org**

❖ 2007/08 RULES:

- In the now customary way, if a rule has been clarified or changed, a line appears in the margin of the text. The main changes for 2007/8 are described below.
- The requirement to have a goalkeeper on the field at all times during play has been modified. The change permits teams more flexibility about what sort of goalkeeping option to adopt. It also takes account of the possibility that a team does not have a fully-equipped goalkeeper available or simply wishes to play only with field players. The change mainly affects rules 2.2, 4.4 and 10.1 but there are also other changes especially if a team chooses to play only with field players. In relation to these changes, it is important to understand that a team either has a goalkeeper on the field (with full protective equipment or only with protective headgear) or is playing entirely with field players in which case no player has goalkeeping privileges.

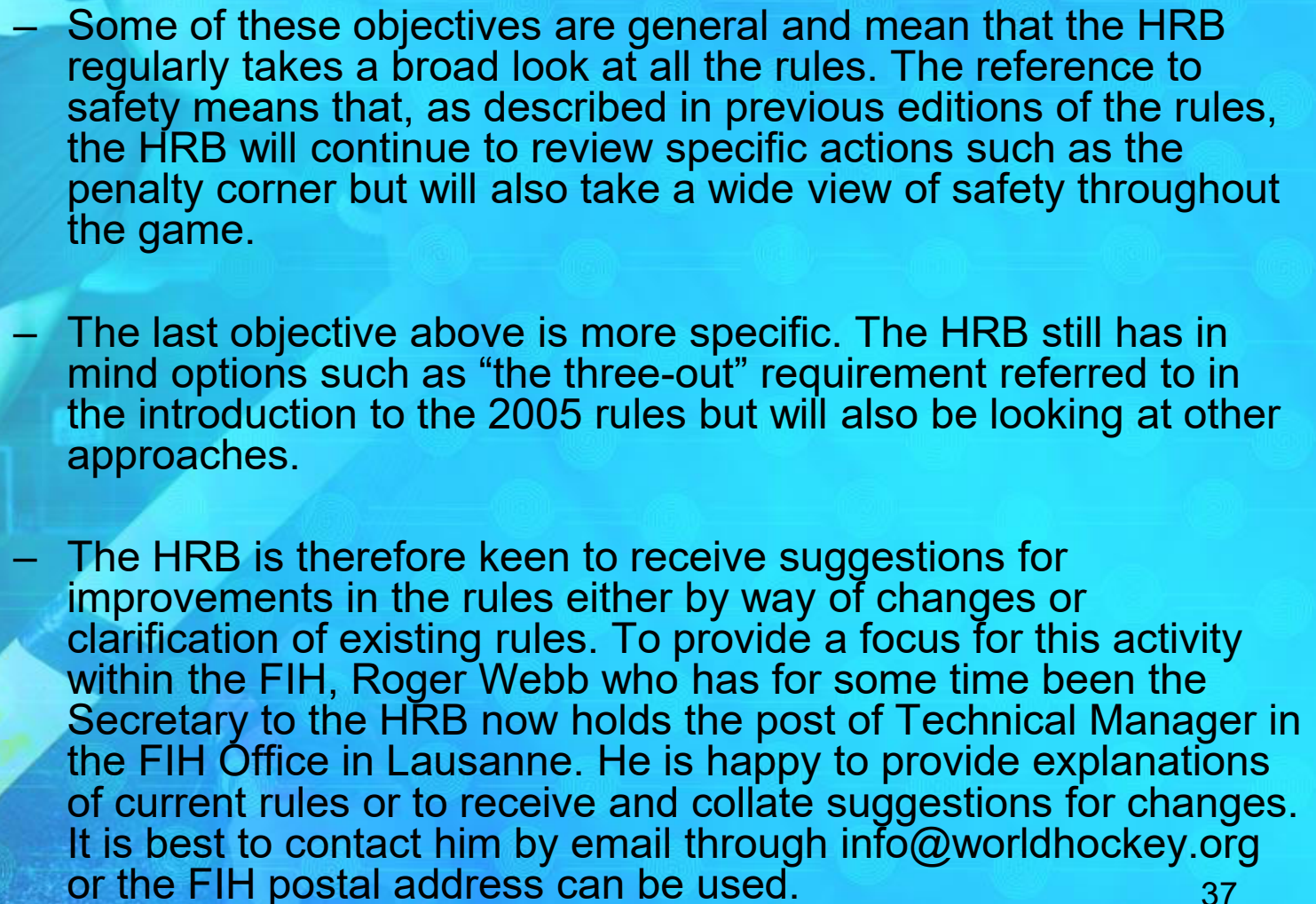
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- The HRB has observed that field players are increasingly wearing face protection especially when defending a penalty corner. The note to rule 4.2 has therefore been modified.
 - During 2006, a change to the rules was published to prohibit hitting the ball hard on the forehand with the edge of the stick. This is fully incorporated in this set of rules as rule 9.6. There is an important note to this rule explaining when the edge of the stick can be used on the forehand to play the ball safely.

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- The note to rule 9.7 should also be studied carefully because it explains that a defender must not be penalized if they are genuinely trying to play the ball in a legitimate way when saving a shot at goal at any height.
 - Similarly, the note to rule 9.11 is intended to make the consequences of a ball striking the foot, hand or body clearer.
 - Associated with its review of goalkeeping options, the HRB also considered the ways in which a goalkeeper is permitted to play the ball. The changes reflected in rule 10.2 permit a goalkeeper more flexibility when defending their goal.
 - Other minor points of clarification are shown with lines marked in the margin. For completeness, various small drafting changes are marked in the same way.

❖ RULES DEVELOPMENTS

– The Hockey Rules Board recently reviewed its objectives. It did so in the context of the overall FIH objectives and the broad aims for the sport world-wide. As a result, its current focus is on:

- making the game easier to understand.
- reviewing and responding to safety requirements.
- ensuring that the game as represented by the rules of hockey is attractive for young players.
- increasing the length of time the ball is in play and is in attack.

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- Some of these objectives are general and mean that the HRB regularly takes a broad look at all the rules. The reference to safety means that, as described in previous editions of the rules, the HRB will continue to review specific actions such as the penalty corner but will also take a wide view of safety throughout the game.
 - The last objective above is more specific. The HRB still has in mind options such as “the three-out” requirement referred to in the introduction to the 2005 rules but will also be looking at other approaches.
 - The HRB is therefore keen to receive suggestions for improvements in the rules either by way of changes or clarification of existing rules. To provide a focus for this activity within the FIH, Roger Webb who has for some time been the Secretary to the HRB now holds the post of Technical Manager in the FIH Office in Lausanne. He is happy to provide explanations of current rules or to receive and collate suggestions for changes. It is best to contact him by email through info@worldhockey.org or the FIH postal address can be used.

❖ Terminology

» **Player**

One of the participants in a team.

» **Team**

A team consists of a maximum of sixteen persons composed of a maximum of eleven players on the field and up to five substitutes.

» **Field Player**

One of the participants on the field other than the goalkeeper.

» **Goalkeeper**

One of the participants of each team on the field who wears protective equipment comprised of at least headgear and who thereby has the privileges of a goalkeeper.

» **Attack (Attacker)**

The team (player) which is trying to score a goal.



» **Defence (Defender)**

The team (player) which is trying to prevent a goal being scored.

» **Back-line**

The shorter (55 metres) perimeter line.

» **Goal-line**

The back-line between the goal-posts.

» **Side-line**

The longer (91.40 metres) perimeter line.

» **Circle**

The area enclosed by and including the two quarter circles and the lines joining them at each end of the field opposite the centre of the back-lines.

» **23 metres area**

The area enclosed by and including the line across the field 22.90 metres from each back-line, the relevant part of the side-lines, and the back-line.



» **Playing the ball : field player**

Stopping, deflecting or moving the ball with the stick.

» **Shot at goal**

The action of an attacker attempting to score by playing the ball towards the goal from within the circle.

» **Hit**

Striking the ball using a swinging movement of the stick towards the ball.

» **Push**

Moving the ball along the ground using a pushing movement of the stick after the stick has been placed close to the ball. When a push is made, both the ball and the head of the stick are in contact with the ground.

» **Flick**

Pushing the ball so that it is raised off the ground.



» **Scoop**

Raising the ball off the ground by placing the head of the stick under the ball and using a lifting movement.

» **Forehand**

Playing a ball which is to the right of the player in a forwards direction.

» **Playing distance**

The distance within which a player is capable of reaching the ball to play it.

» **Tackle**

An action to stop an opponent retaining possession of the ball.

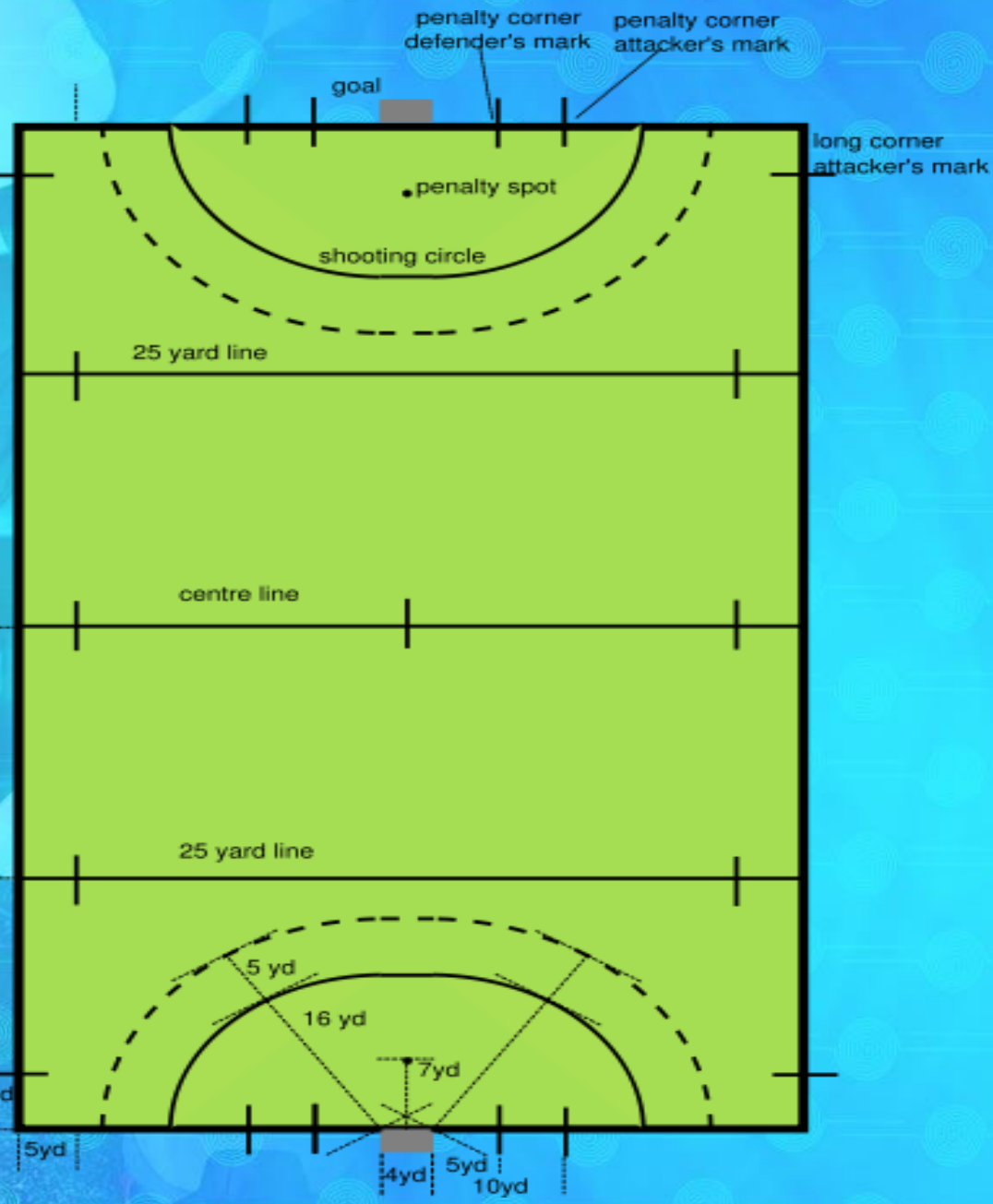
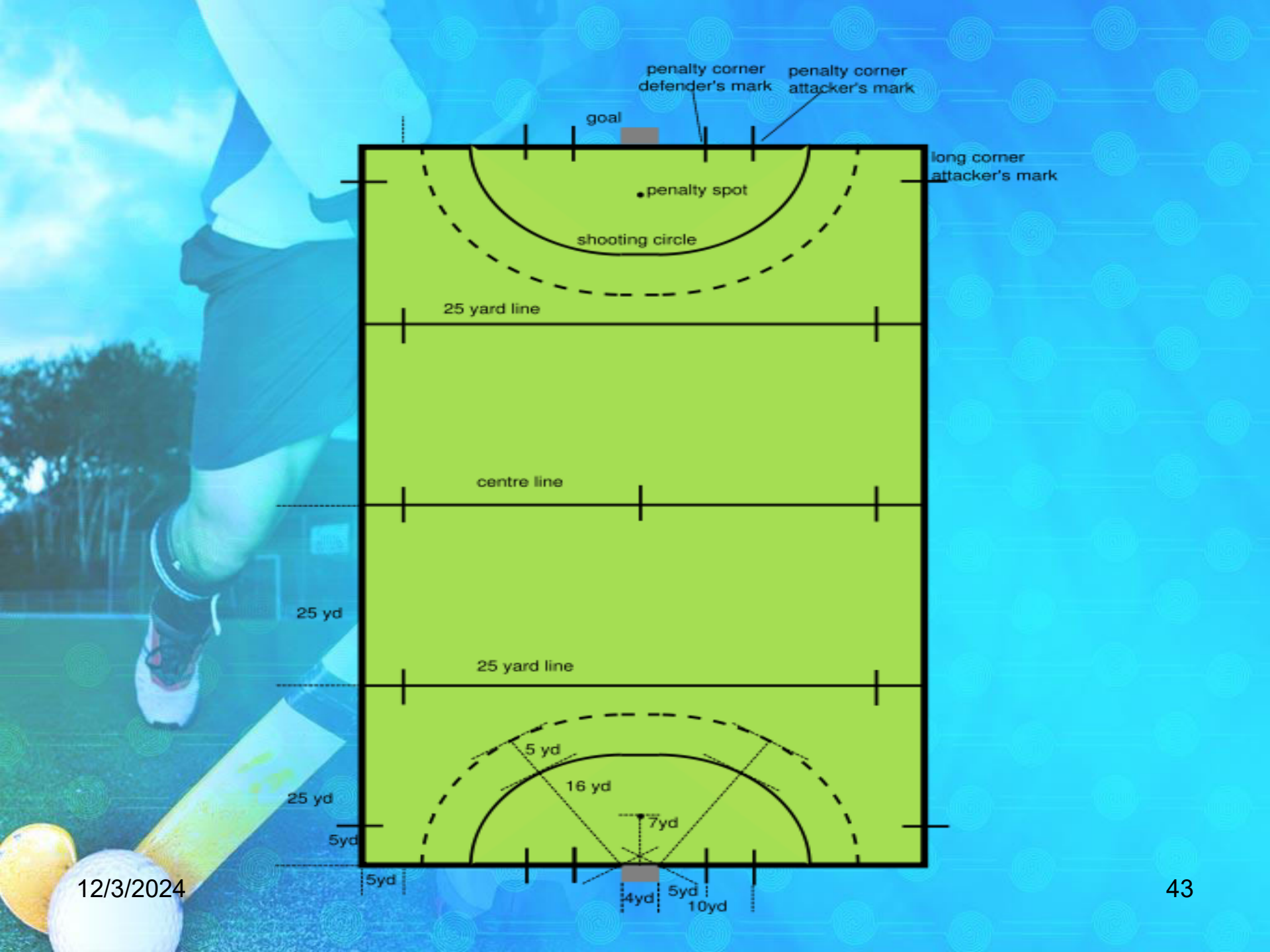
» **Offence**

An action contrary to the Rules penalised by an umpire.

❖ Playing the Game

1. Field of Play

- 1.1 The field of play is rectangular, 91.40 metres long and 55.00 metres wide.
- 1.2 Side-lines mark the longer perimeters of the field ; back-lines mark the shorter perimeters of the field.
- 1.3 The goal-lines are the parts of the back-lines between the goal-posts.
- 1.4 A centre-line is marked across the middle of the field.
- 1.5 Lines known as 23 metres lines are marked across the field 22.90 metres from each back-line.
- 1.6 Areas referred to as the circles are marked inside the field around the goals and opposite the centres of the back-lines.
- 1.7 Penalty spots 150 mm in diameter are marked in front of the centre of each goal with the centre of each spot 6.40 metres from the inner edge of the goal-line.
- 1.8 All lines are 75 mm wide and are part of the field of play.
- 1.9 Flag-posts between 1.20 and 1.50 metres in height are placed at each corner of the field.
- 1.10 Goals are positioned outside the field of play at the centre of and touching each back-line.



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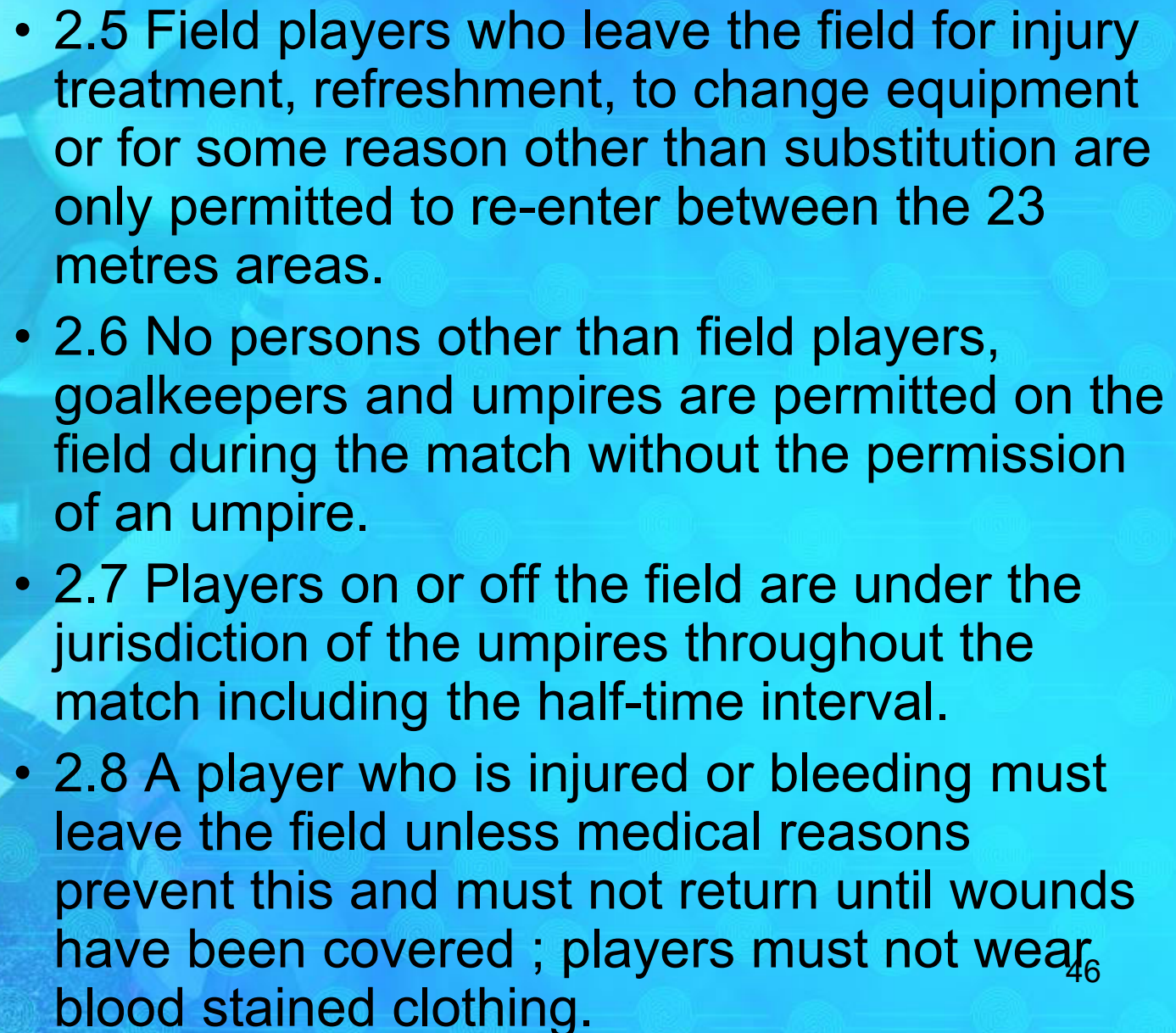
2. Composition of teams

- 2.1 A maximum of eleven players from each team take part in play at any particular time during the match.
- 2.2 Each team has a goalkeeper on the field or plays only with field players.
- 2.3 Each team is permitted to substitute from its players not on the field of play.



2.4 For substitution purposes, a penalty corner is completed when:

- a. a goal is scored
- b. an attacker commits an offence
- c. the ball travels more than 5 metres outside the circle
- d. the ball travels outside the circle for the second time
- e. the ball is played over the back-line and another penalty corner is not awarded
- f. a defender commits an offence and another penalty corner is not awarded
- g. a penalty stroke is awarded
- h. a bully is awarded

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- 2.5 Field players who leave the field for injury treatment, refreshment, to change equipment or for some reason other than substitution are only permitted to re-enter between the 23 metres areas.
 - 2.6 No persons other than field players, goalkeepers and umpires are permitted on the field during the match without the permission of an umpire.
 - 2.7 Players on or off the field are under the jurisdiction of the umpires throughout the match including the half-time interval.
 - 2.8 A player who is injured or bleeding must leave the field unless medical reasons prevent this and must not return until wounds have been covered ; players must not wear blood stained clothing.

3. Captains

- 3.1 One player of each team must be appointed as captain.
- 3.2 A replacement captain must be appointed when a captain is suspended.
- 3.3 Captains must wear a distinctive armband or similar distinguishing article on an upper arm or shoulder.
- 3.4 Captains are responsible for the behaviour of all players on their team and for ensuring that substitutions of players on their team are carried out correctly.

4. Players' clothing and equipment

- 4.1 Field players of the same team must wear uniform clothing.
- 4.2 Players must not wear anything which is dangerous to other players.
- 4.3 Goalkeepers must wear over any upper body protection a shirt or garment which is different in colour from that of both teams.



- 4.4 Goalkeepers must wear :

- a. protective equipment comprised of at least headgear, leg guards and kickers except that the headgear and any hand protectors may be removed when taking a penalty stroke (or) if the team has chosen this option.

- b. only protective headgear.



- 4.5 Clothing or protective equipment which significantly increases the natural size of a goalkeeper's body or area of protection is not permitted.
- 4.6 The **stick** has a traditional shape with a handle and a curved head which is flat on its left side :
 - a. the stick must be smooth and must not have any rough or sharp parts.
 - b. inclusive of any additional coverings used, the stick must be able to pass through a ring with an interior diameter of 51 mm
 - c. any curvature along the length of the stick (the rake or bow) must have a continuous smooth profile along the whole length, must occur along the face side or the back of the stick but not both and is limited to a depth of 25 mm
 - d. the stick must conform with the specification agreed by the Hockey Rules Board.

- 4.7 The **ball** is spherical, hard and white (or an agreed colour which contrasts with the playing surface).



5. Match and result



- 5.1 A match consists of two periods of 35 minutes and a half-time interval of 5 minutes.
- 5.2 The team scoring the most goals is the winner; if no goals are scored, or if the teams score an equal number of goals, the match is drawn.



6. Start and re-start the match

7. Ball outside the field

8. Method of scoring

9. Conduct of play : players

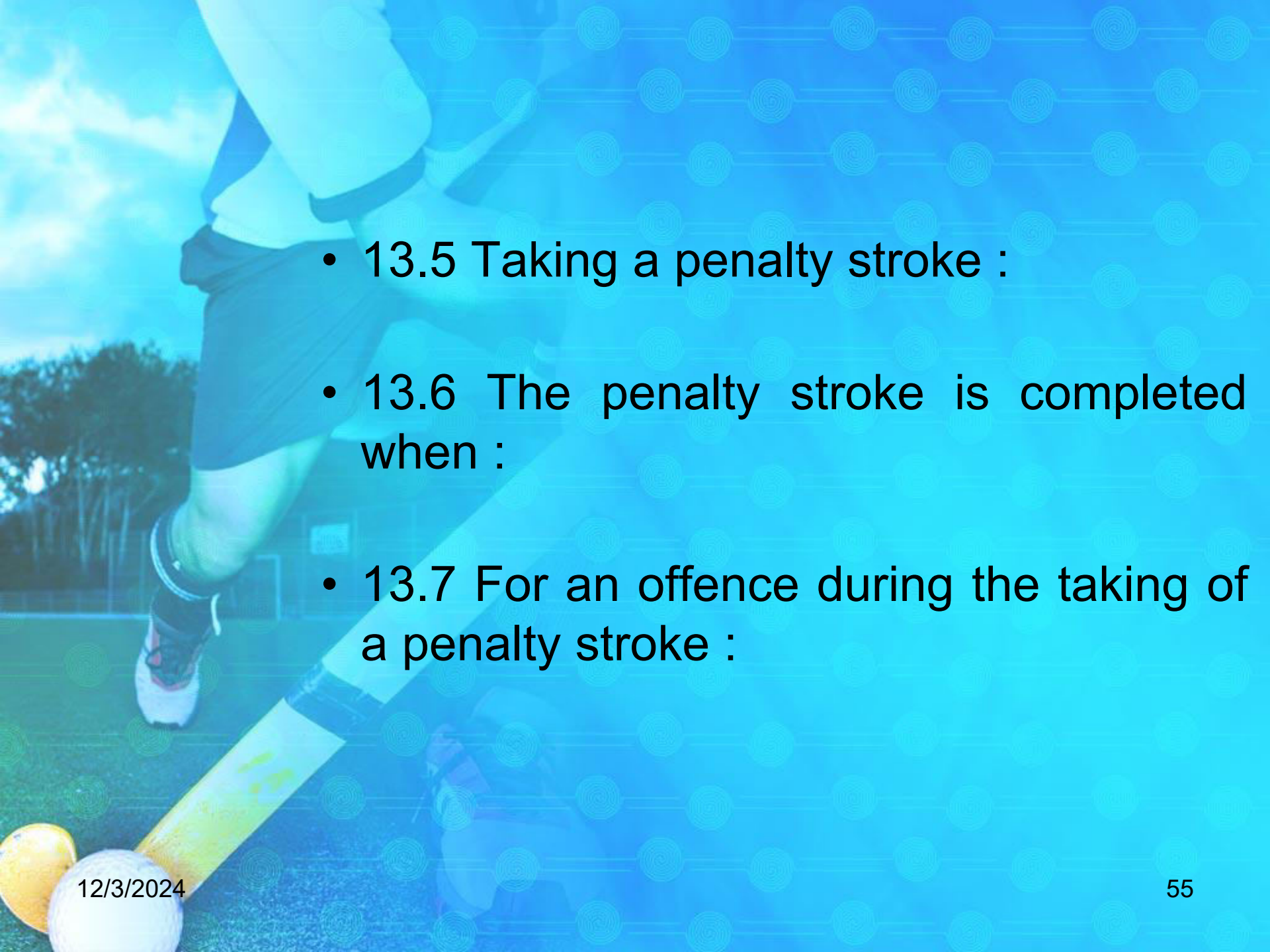
10. Conduct of play : goalkeepers

11. Conduct of play : umpires

12. Penalties

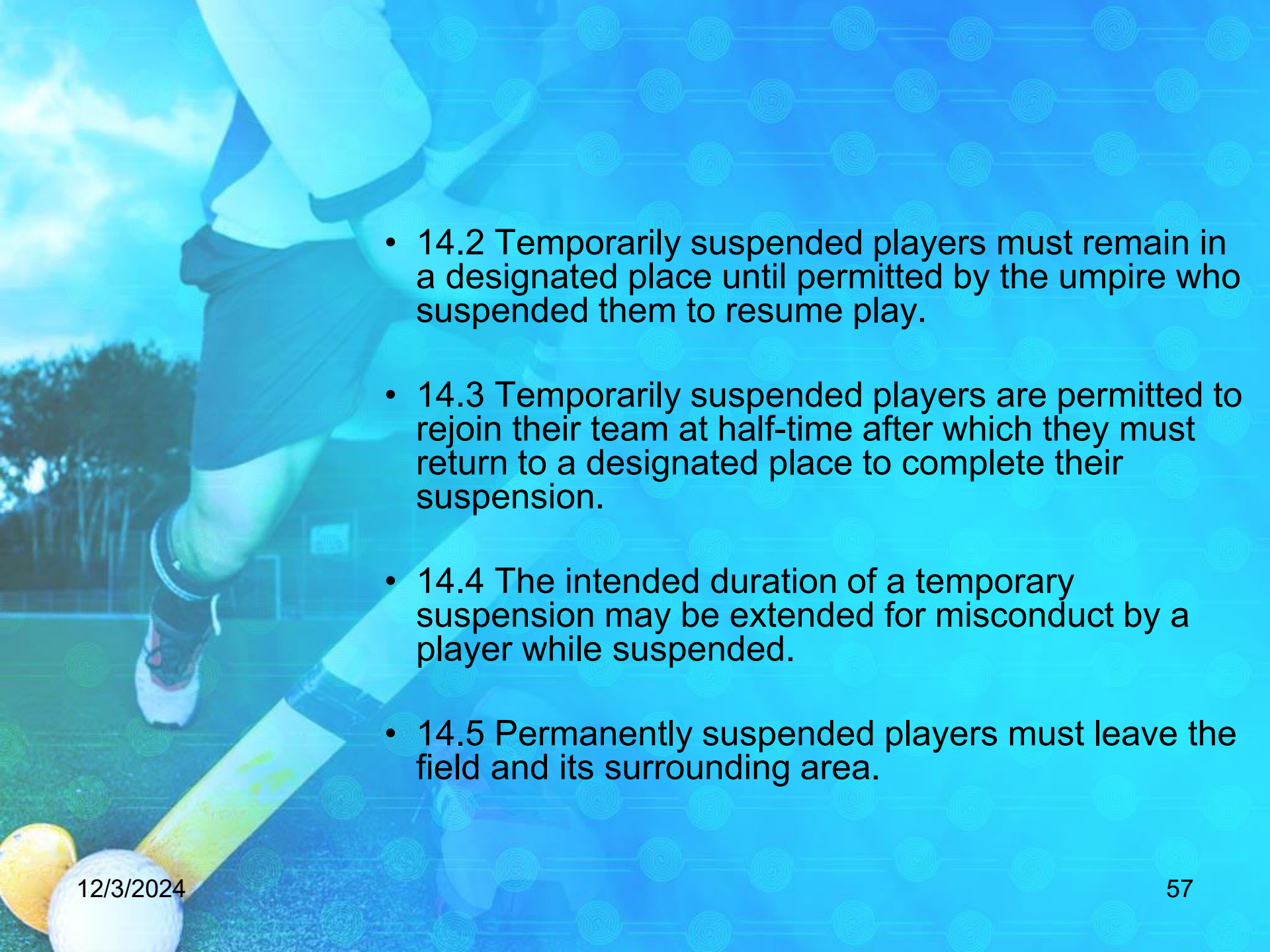
13. Procedures for taking penalties

- 13.1 Location of a free hit :
- 13.2 Procedures for taking a free hit, centre pass and putting the ball back into play after it has been outside the field :
- 13.3 Taking a penalty corner :
- 13.4 The match is prolonged at half-time and full-time to allow completion of a penalty corner or any subsequent penalty corner or penalty stroke ; for this purpose, the penalty corner is completed when :

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- 13.5 Taking a penalty stroke :
 - 13.6 The penalty stroke is completed when :
 - 13.7 For an offence during the taking of a penalty stroke :

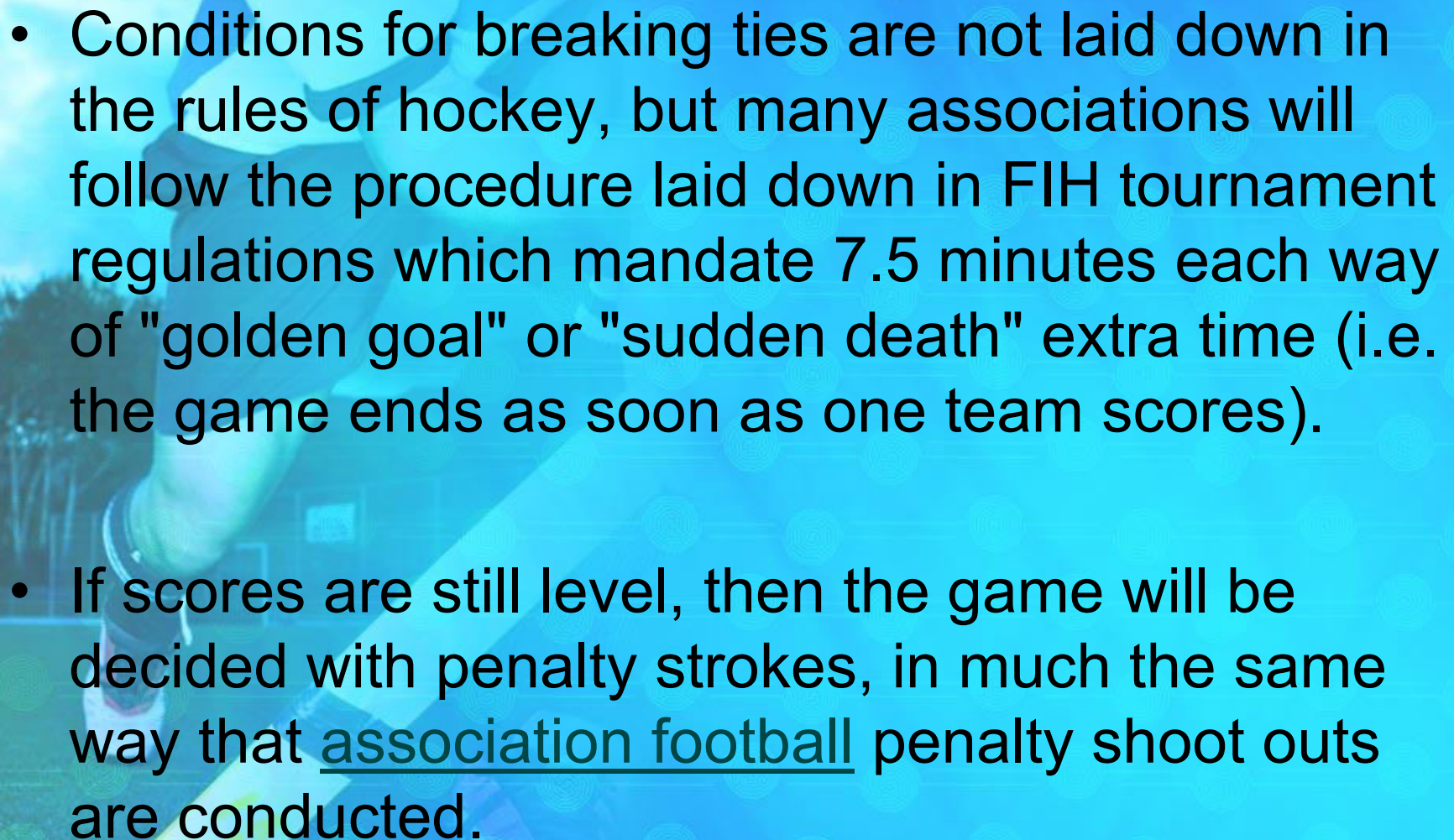
14. Personal penalties

- 14.1 For any offence, the offending player may be :
 - » A. cautioned (indicated by spoken words)
 - » B. warned (indicated by a green card)
 - » C. temporarily suspended for a minimum of 5 minutes of playing time (indicated by a yellow card)
 - » D. permanently suspended from the current match (indicated by a red card).

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- 14.2 Temporarily suspended players must remain in a designated place until permitted by the umpire who suspended them to resume play.
 - 14.3 Temporarily suspended players are permitted to rejoin their team at half-time after which they must return to a designated place to complete their suspension.
 - 14.4 The intended duration of a temporary suspension may be extended for misconduct by a player while suspended.
 - 14.5 Permanently suspended players must leave the field and its surrounding area.

15. Playing the Game – Officiating the Tie Breaking

- **Field Hockey Sports Specific Tie-Breaking Procedure/Selection Seeding**
 - i. comparison of records versus out-of-League common opponents
 - ii. comparison of winning percentages (Division I opponents only)
 - iii. goal differential between the tied teams (capping at +/- 4 goals)
 - iv. goal differential between tied teams in all League games (capping at +/- 4 goals)

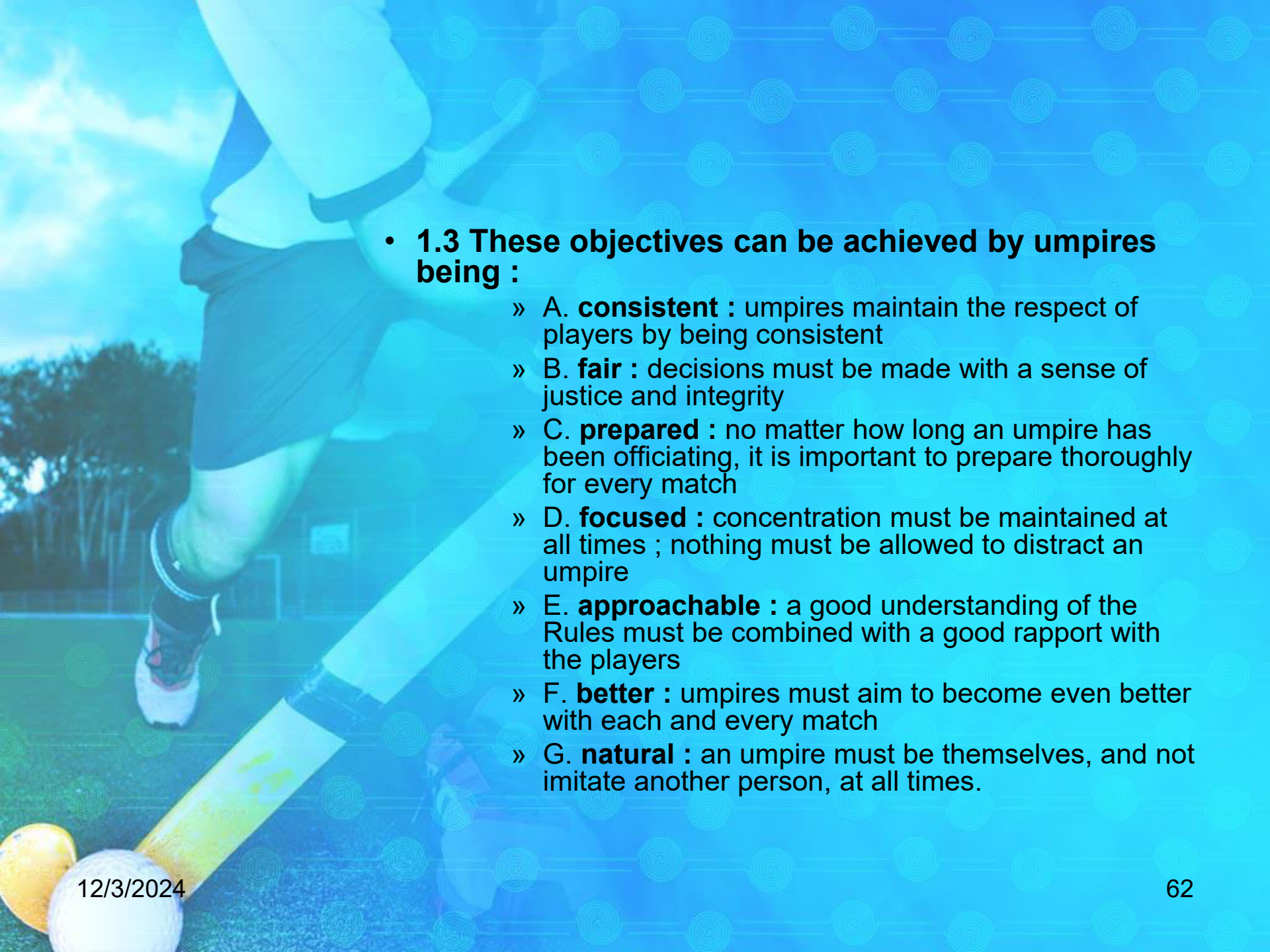
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- Conditions for breaking ties are not laid down in the rules of hockey, but many associations will follow the procedure laid down in FIH tournament regulations which mandate 7.5 minutes each way of "golden goal" or "sudden death" extra time (i.e. the game ends as soon as one team scores).
 - If scores are still level, then the game will be decided with penalty strokes, in much the same way that association football penalty shoot outs are conducted.

- Other competitions may use alternative means of breaking a tie:
- **For Example:** an extended period of golden goal extra time with a progressive reduction in the number of players each team can have on the field (usually termed "drop-offs"); if no goal is scored at the end of such extra time periods, again a result would be achieved using penalty strokes.

❖ Umpiring

1. Objectives

- **1.1 Umpiring hockey is a challenging but rewarding way to participate in the game.**
- **1.2 Umpires contribute to the game by :**
 - » A. helping to raise the standard of the game at all levels by ensuring that players observe the Rules
 - » B. ensuring that every game is played in the right spirit
 - » C. helping to increase the enjoyment of the game for players, spectators, and others.

- 
- **1.3 These objectives can be achieved by umpires being :**
 - » **A. consistent** : umpires maintain the respect of players by being consistent
 - » **B. fair** : decisions must be made with a sense of justice and integrity
 - » **C. prepared** : no matter how long an umpire has been officiating, it is important to prepare thoroughly for every match
 - » **D. focused** : concentration must be maintained at all times ; nothing must be allowed to distract an umpire
 - » **E. approachable** : a good understanding of the Rules must be combined with a good rapport with the players
 - » **F. better** : umpires must aim to become even better with each and every match
 - » **G. natural** : an umpire must be themselves, and not imitate another person, at all times.

1.4 Umpires must :


- » A. Have a thorough knowledge of the Rules of Hockey but remember that the spirit of the Rule and common sense must govern interpretation
- » B. Support and encourage skilful play, deal promptly and firmly with offences and apply the appropriate penalties
- » C. Establish control and maintain it throughout the match
- » D. Use all the available tools for control
- » E. Apply the advantage Rule as much as possible to assist a flowing and open match but without losing control.

2. Applying the rules

- 2.1 Protecting skilful play and penalizing offences :
- 2.2 Advantage :
- 2.3 Control :
- 2.4 Penalties :

3. Umpiring skills

- 3.1 The main umpiring skill areas are :
 - » A. match preparation
 - » B. co-operation
 - » C. mobility and positioning
 - » D. whistling
 - » E. signalling
- 3.2 Match preparation :
- 3.3 Co-operation :

- 
- 3.4 Mobility and positioning :
 - 3.5 Whistling :
 - 3.6 Signalling :

4. Umpiring signals

- 4.1 Timing :
- 4.2 Bully : move hands alternately up and down in front of the body with palms facing each other.
- 4.3 Ball out of play :
 - A. ball out of play over the side-line : indicate the direction with one arm raised horizontally
 - B. ball out of play over the back-line by an attacker : face the centre of the field and extend both arms horizontally sideways
 - C. ball out of play over the back-line unintentionally by a defender : point one arm at the corner flag nearest where the ball crossed the back-line.
- 4.4 Goal scored : point both arms horizontally towards the centre of the field.
- 4.5 Conduct of play :
- 4.6 Penalties :

❖ Field and Equipment Specifications

- **1. Field and field equipment:**
- 1.1 The field of play is rectangular, 91.40 metres long bounded by side-lines and 55 metres wide bounded by back-lines.
 - » The playing surface must continue (to create “run-off” areas) for a minimum of 2 metres at the back-lines and 1 metre at the side-lines with an additional unobstructed 1 metre in each case (that is, a total of 3 metres at the ends and 2 metres at the sides of the field). These are minimum requirements with the respective recommended areas being 4 plus 1 metres and 3 plus 1 metres (that is, a total of 5 metres at the ends and 4 metres at the sides of the field).



- 1.2 Markings :

- » A. no marks other than those described in this Rule are to be made on the playing surface
- » B. lines are 75 mm wide and must be clearly marked along their entire length
- » C. the side-lines and back-lines and all markings enclosed between them are part of the field
- » D. all marks must be made in white.

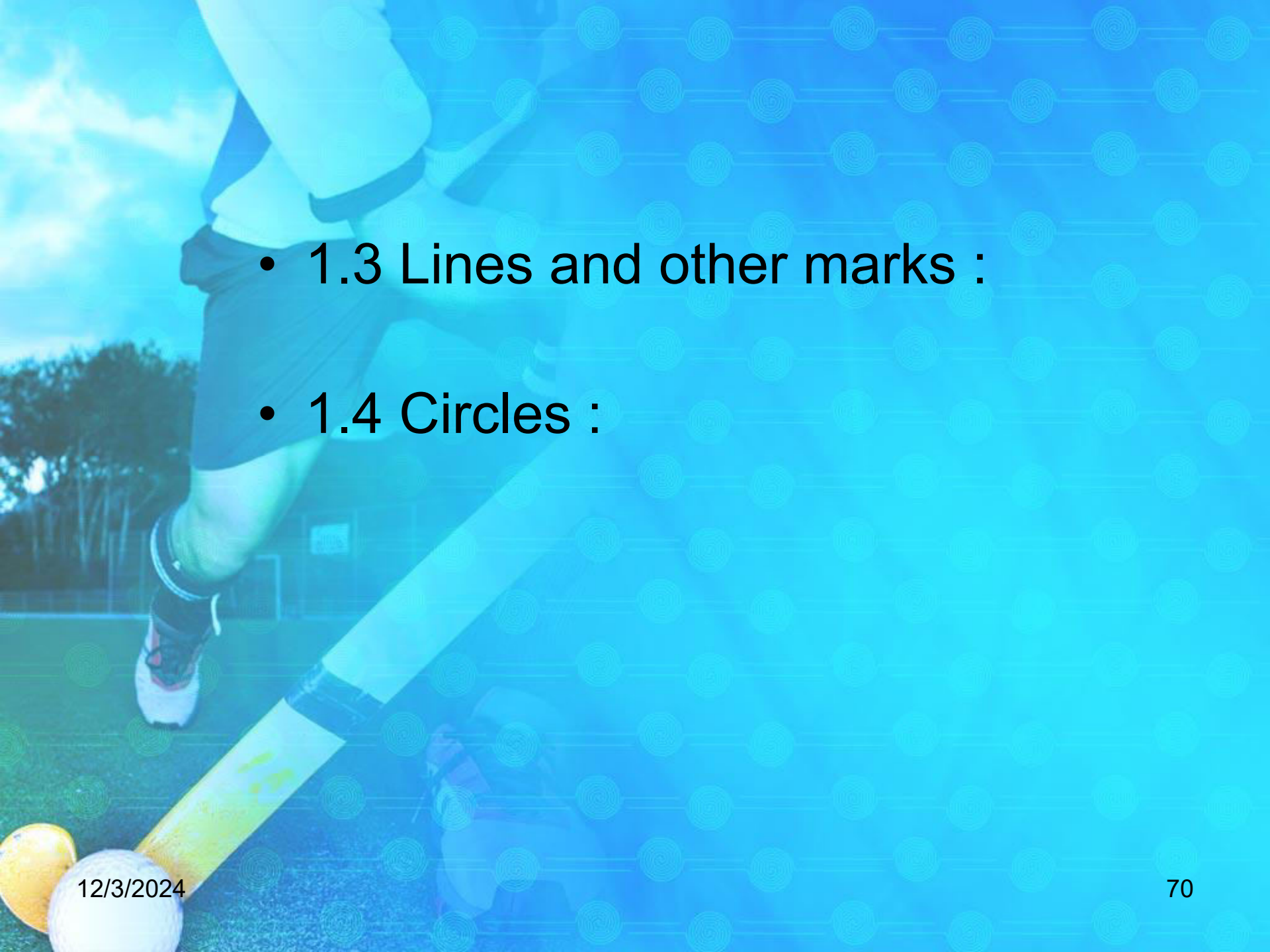
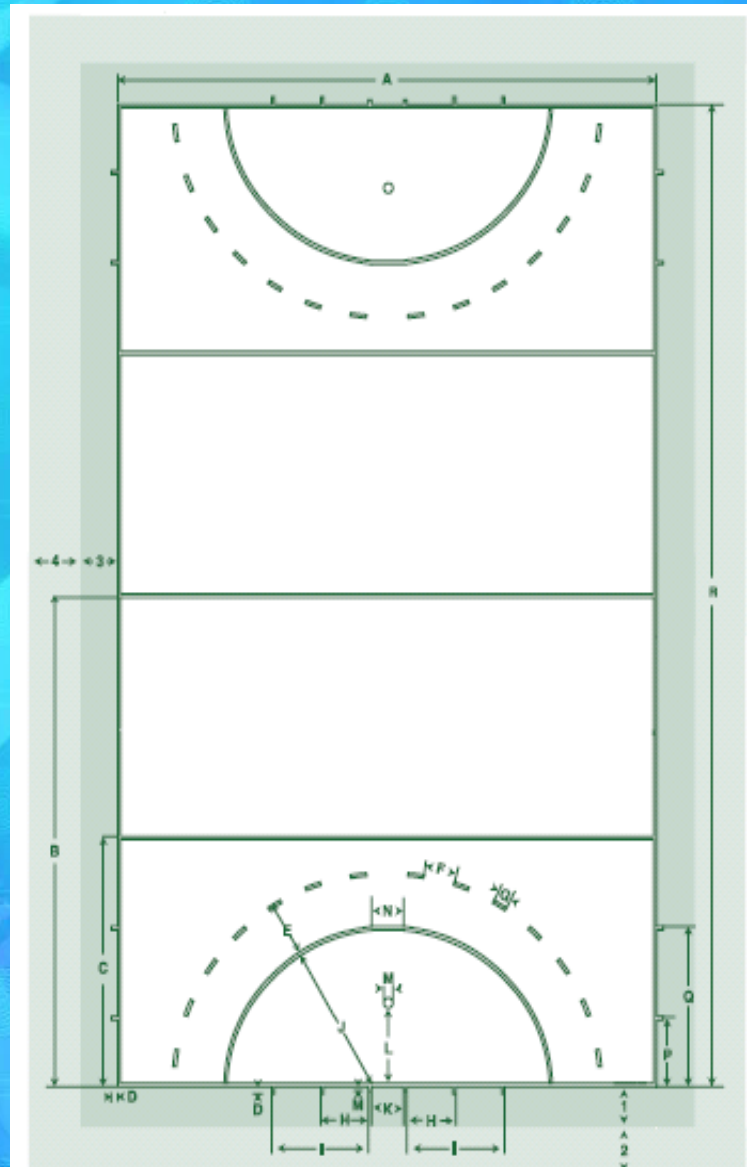
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- 1.3 Lines and other marks :
 - 1.4 Circles :

Figure 1 : Field of Play



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Field Dimensions:

Code	Metres	Code	Metres
A	55.00	M	0.15
B	45.70	N	3.66
C	22.90	P	5.00
D	0.30	Q	14.63
E	5.00	R	91.40
F	3.00	1	minimum 2.00
G	0.30	2	1.00
H*	4.98*	(1 + 2)	minimum 3.00
I*	9.98*	3	minimum 1.00
J	14.63	4	1.00
K	3.66	(3 + 4)	minimum 2.00
L	6.4		

** Dimensions H and I are measured from the goal-post line and not from the goal-post itself; the dimensions from the goal-post are 5.00 metres and 10.00 metres respectively.*

- 1.5 Goals :

Goal Dimensions

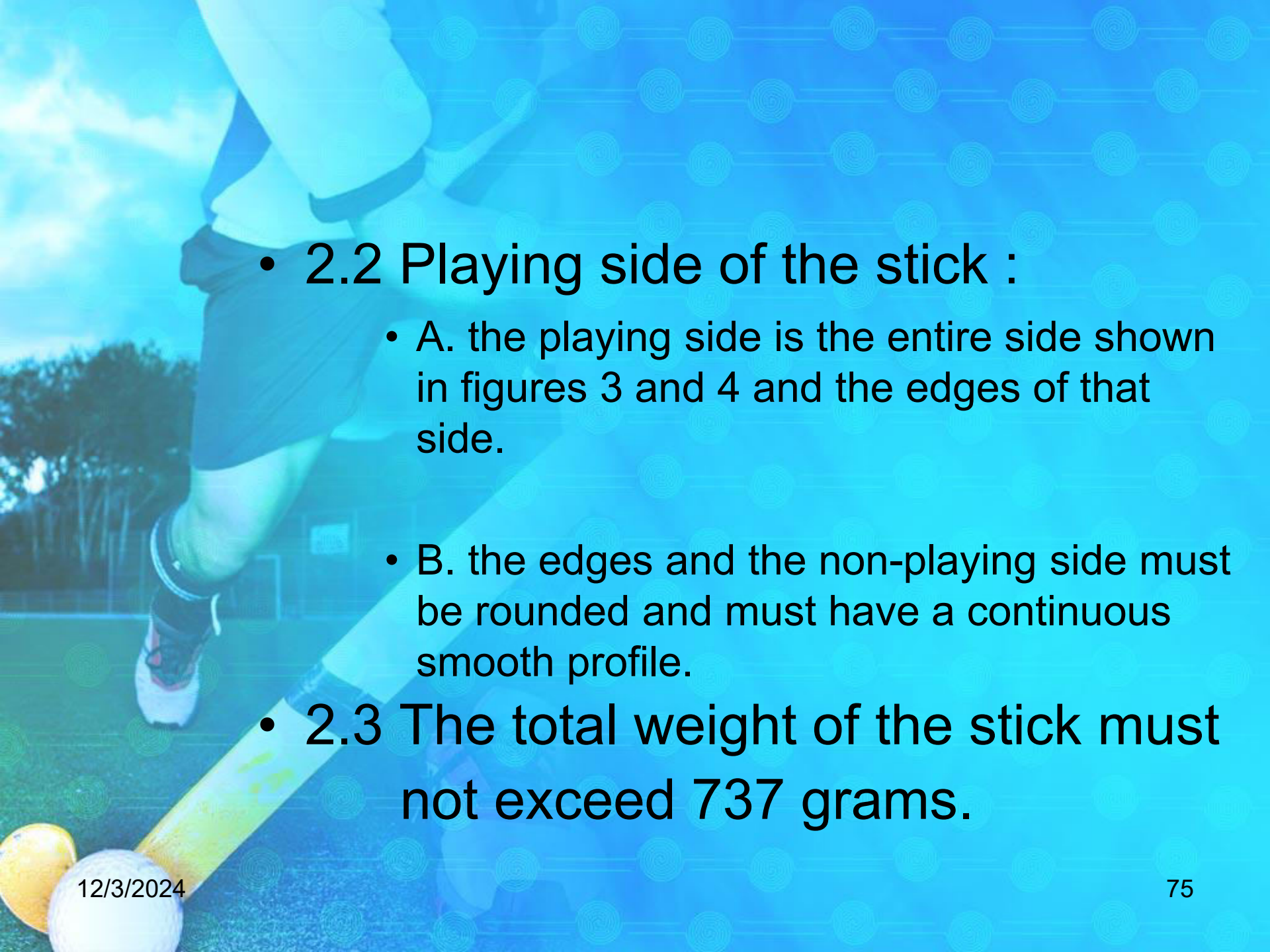
Code	Metres	Code	Metres
A	3.66	E	minimum 0.90
B	2.14	F	0.050
C	0.46	G	0.050 to 0.075
D	minimum 1.20		

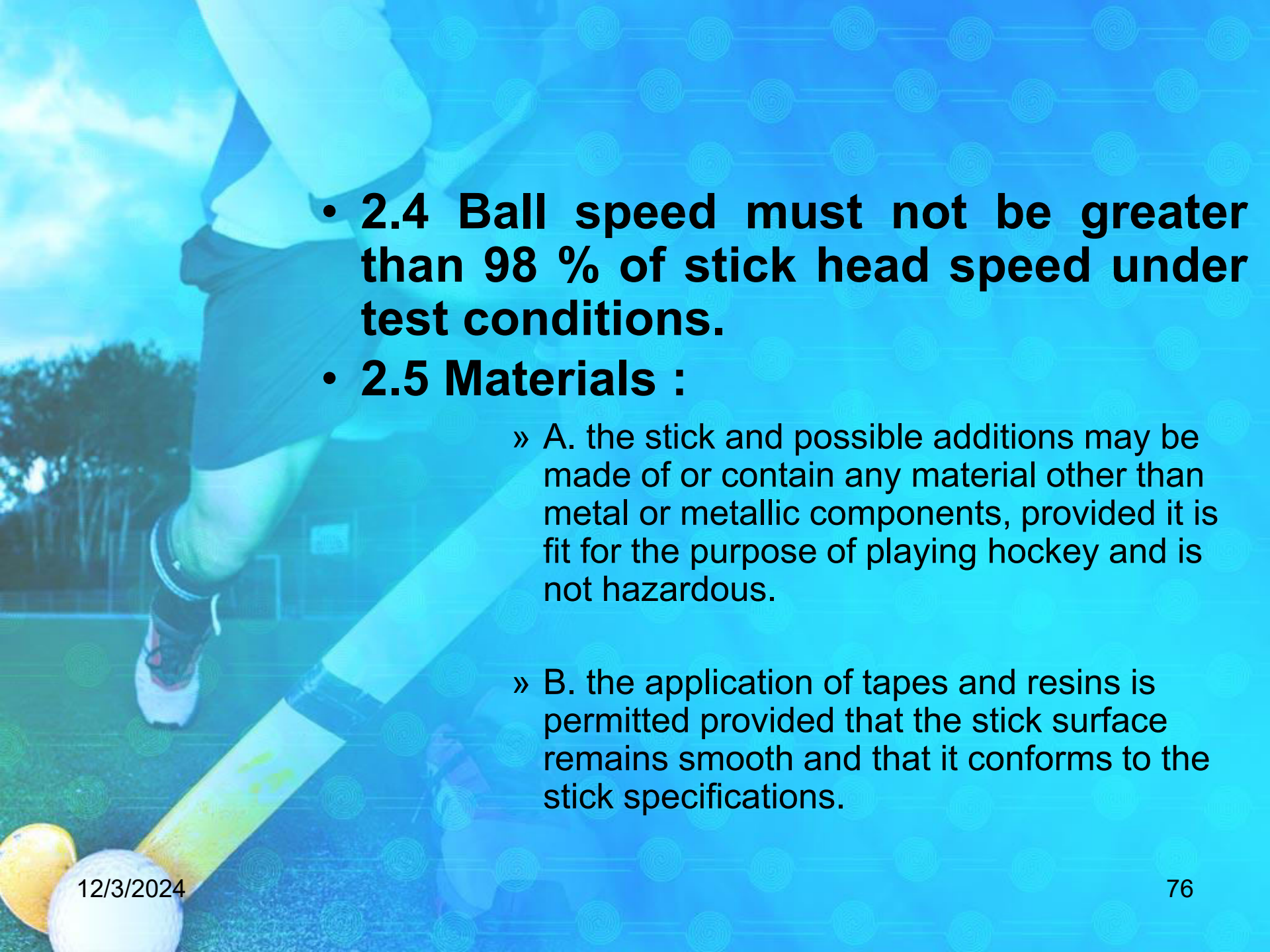
- 1.6 Side-boards and back-boards :
- 1.7 Nets :
- 1.8 Flag-posts :

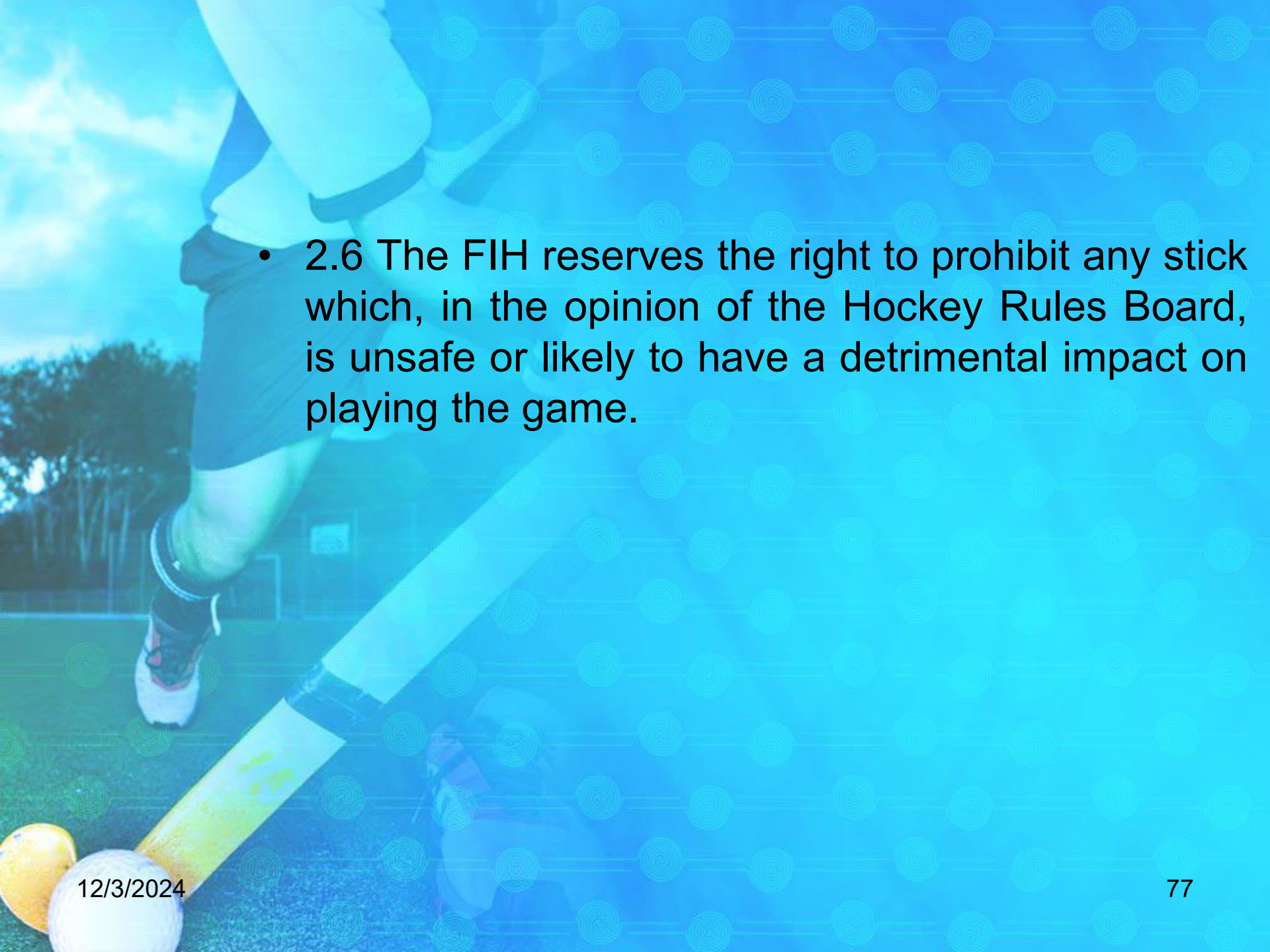
2.Stick

- 2.1 The Stick:



- 
- **2.2 Playing side of the stick :**
 - A. the playing side is the entire side shown in figures 3 and 4 and the edges of that side.
 - B. the edges and the non-playing side must be rounded and must have a continuous smooth profile.
 - **2.3 The total weight of the stick must not exceed 737 grams.**

- 
- **2.4 Ball speed must not be greater than 98 % of stick head speed under test conditions.**
 - **2.5 Materials :**
 - » A. the stick and possible additions may be made of or contain any material other than metal or metallic components, provided it is fit for the purpose of playing hockey and is not hazardous.
 - » B. the application of tapes and resins is permitted provided that the stick surface remains smooth and that it conforms to the stick specifications.

- 
- 2.6 The FIH reserves the right to prohibit any stick which, in the opinion of the Hockey Rules Board, is unsafe or likely to have a detrimental impact on playing the game.

3. Ball

- **3.1 The ball :**



- A. is spherical
- B. has a circumference of between 224 mm and 235 mm
- C. weighs between 156 grams and 163 grams
- D. is made of any material and coloured white (or an agreed colour which contrasts with the playing surface)
- E. is hard with a smooth surface but indentations are permitted.

4. Goalkeeper's equipment

- **4.1 Hand protectors :**

- A. each have a maximum width of 228 mm and length of 355 mm when laid flat, palm upwards.
- B. must not have any additions to retain the stick when the stick is not held in the hand.



- **4.2 Leg guards :**

Each have a maximum width of 300 mm when on the leg of the goalkeeper.

❖ Common Injuries

Hockey is a rough game and it is a very brutal sport to be involved in. There are really a lot of injuries that are common amongst hockey players.

- A lot of hockey players are prone to back injuries, knees, arms and many other things.
- ✓ The team most common injuries that hockey players get are:

- LOWER BACK
- HEAD TRAUMA
- NECK STRAIN
- TENDONITIS
- BLACK EYE
- BROKEN TEETH
- FROSTBITE
- SPINAL CORD INJURY
- BROKEN BONES

Four Common Hockey Injuries and How to prevent them?

- **1. Groin strain (Adductor strain)**
- **2. Medial Collateral Ligament (MCL) Sprain**
- **3. Shoulder Dislocation**
- **4. Bruises**

1. Groin strain (Adductor strain)

- A groin strain is the micro tearing of one or more of the groin muscles, collectively called the adductors. There are both long adductors that cross the knee and short adductors that do not. These muscles contract to bring an outstretched leg in beside the other leg or across the midline. A strain may occur when a weak muscle is forcefully contracted (such as in a full stride) or when tight muscles are over stretched (such as being hit in an awkward position).
- It is important to have a good balance of both **strength** and **flexibility** in the groin muscles. Strength will allow both repetitive and maximal muscle contraction with a decreased risk of injury during these events. Flexibility will allow the muscles to be stretched as necessary while playing hockey with less chance of tearing. These exercises should be done once a day, 5-7 days per week for maximum benefit.

Groin stretches: Hold all stretches for 30 seconds, repeat 3 times.

Short adductors:

- Lay down on your back with your hips and knees bent to 90 degrees.
- Open your knees down towards the floor allowing gravity to stretch the groin muscles.

Long adductors:

- Sit with your back against a wall to keep it straight, and your legs out in front of you
- Open your legs out to the sides keeping the knees straight and pointing up to the ceiling until a stretch is felt on the inner legs.

Resisted tubing exercise

- With rubber tubing around your ankle, bring a straight leg in and across the front of your standing leg.
- Slowly bring the leg back out to the side and slightly behind your shoulder.
- Make sure your knee is facing straight ahead during this entire exercise.

2. Medial Collateral Ligament (MCL) Sprain

- The MCL is a ligament that runs vertically across the knee joint on the inside of the knee.
- This ligament is often injured in hockey due to a blow to the outside of the knee, causing the knee to bow inwards.
- The quadriceps muscles are partially responsible for controlling the knee, and the outer quads of hockey players are often stronger than the inner quads.
- The inner quads must be strengthened in order to have a balance of strength around the knee

Squats with Isoadduction: to strengthen inner quads.

- Standing against a wall with feet shoulder width apart, knees and feet facing forward, place a medium sized ball between your knees.
- While squeezing your knees together, do a squat, keeping the heels on the ground.
- Return to standing
- To ensure that your knees are going over your toes you may need to adjust your foot position.
- Do 3 sets of 10 repetitions.

1 Foot Balance

- Balance on one foot on a wobble board with a slight bend in your knee.
- Hold for a minimum 30 seconds. Repeat 3-5 times.
- Progressions (with one foot on the wobble board)
 - Close your eyes
 - Play catch
 - Practice stick handling

Sprains:

You can remember **how to treat Sprains** with the acronym **RICE**:

- Rest
- Ice (keep ice on the strain for the first xx hours)
- Compression
- Elevation. (keep the strain area above the heart)

3. Shoulder Dislocation

- Shoulder dislocation occurs when the upper arm bone (the humerus) comes out of the shoulder socket, most commonly to the front.
- It may need medical attention to be put back in place, or it may pop back in on its own.
- Dislocation may be facilitated by weak muscles around the shoulder joint (the rotator cuff) or by tight structures in the back of the shoulder.

Rotator Cuff Strengthening: ensure your elbow remains tucked in at your side for the entire exercise.

Internal Rotation

- Stand with your elbow at your side and bent to 90 degrees, holding on to rubber tubing.
- Pull the tubing across your stomach.
- Slowly let the arm rotate outward as far as it will go.
- Do not allow any twisting or side bending of the upper body.

External rotation

- Same positioning as above except pull the tubing outwards, away from your body first and slowly let the arm rotate across your stomach.
- Do 3 sets of 10 repetitions of each exercise.

•Sleeper stretch

- Lay on your side with your bottom arm straight out in front of you.
- Bend your bottom elbow to 90 degrees
- Roll forward slightly so you are no longer directly on your side.
- Using your top arm, pull your wrist down towards the floor so that the shoulder rotates and a stretch is felt across the back of the shoulder.
- Hold the stretch for 30 seconds and repeat 3 times.

4. Bruises

- Bruises can occur from a variety of different types of contact including hockey pucks, sticks, collisions, and boards.
- Treat using a cold pack to the bruise and after twenty-four hours, a warm and moist compress can be applied to the area.

Preventive Strategies and Countermeasures to Hockey Injury

Countermeasures for preventing hockey injuries with some evidence to support effectiveness include:

- Enforcing rules aimed at preventing dangerous use of the hockey stick and careless play of the ball; modifying rules for children; use of protective equipment (such as shin guards, eye wear and mouth guards); expert training of coaches and officials; adequate nutrition; pre-season conditioning; pre-game stretch and warm-up; prompt access to professional first aid and medical care; and full rehabilitation before returning to play.

Table 1: Potential countermeasures to hockey injury

Primary countermeasures	<ul style="list-style-type: none">• Coaching and expertise of coaches• Pre-participation screening• Pre-season conditioning and fitness program• Adequate nutrition and hydration• Adequate warm-up and pre-game stretch• Officiating and expertise of officials• Prophylactic taping and bracing• Devising rules aimed at preventing dangerous play• Safe playing environment (for example level surfaces)• Cool-down and post-game stretch
Secondary countermeasures	<ul style="list-style-type: none">• Wearing of proper footwear• Attention to biomechanics, technique• Control of dangerous play by officials and coach• Wearing protective equipment (for example shin guards, mouthguards)
Tertiary countermeasures	<ul style="list-style-type: none">• Prompt access to professional first aid and medical care• Availability of first aid equipment on site• Rest, Ice, Compression, Elevation, Referral (RICER)• Rehabilitation• Taping and bracing to prevent re-injury• Return to play only when fit

Potential countermeasures requiring further investigation include:

- Risk management plans; prophylactic taping and bracing of ankles; altering the stick design to make it safer; the use of protective gloves; extending pre-season screening to include non-elite players; and improving injury data collection, especially for non-elite levels of play.
- A systematic program of epidemiological and biomechanical research is required to investigate these and other risk and preventive factors.

❖ Tactics and Techniques

✓ Tactics:

- **No-Offside**
- **Tactics and Strategy**

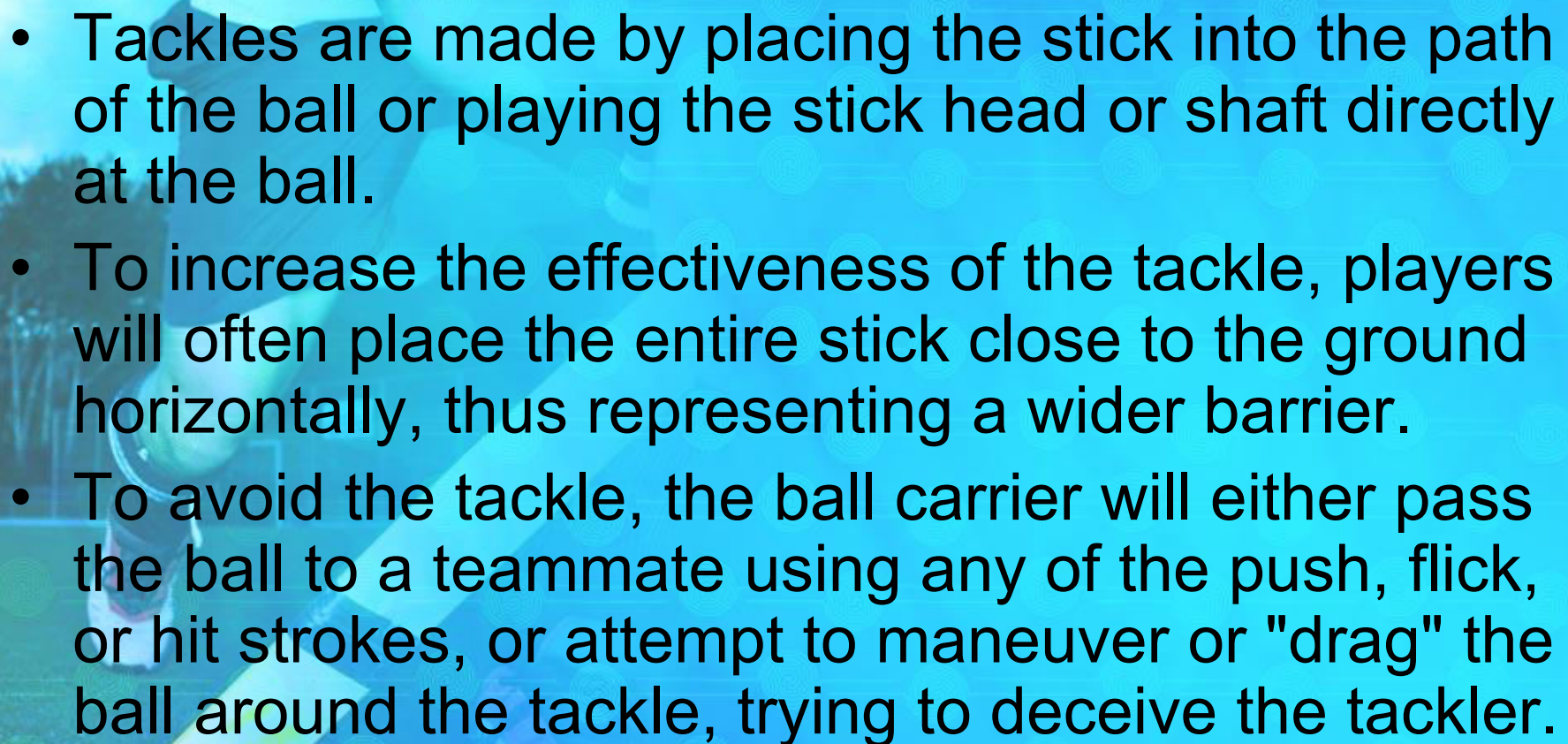
✓ Techniques:

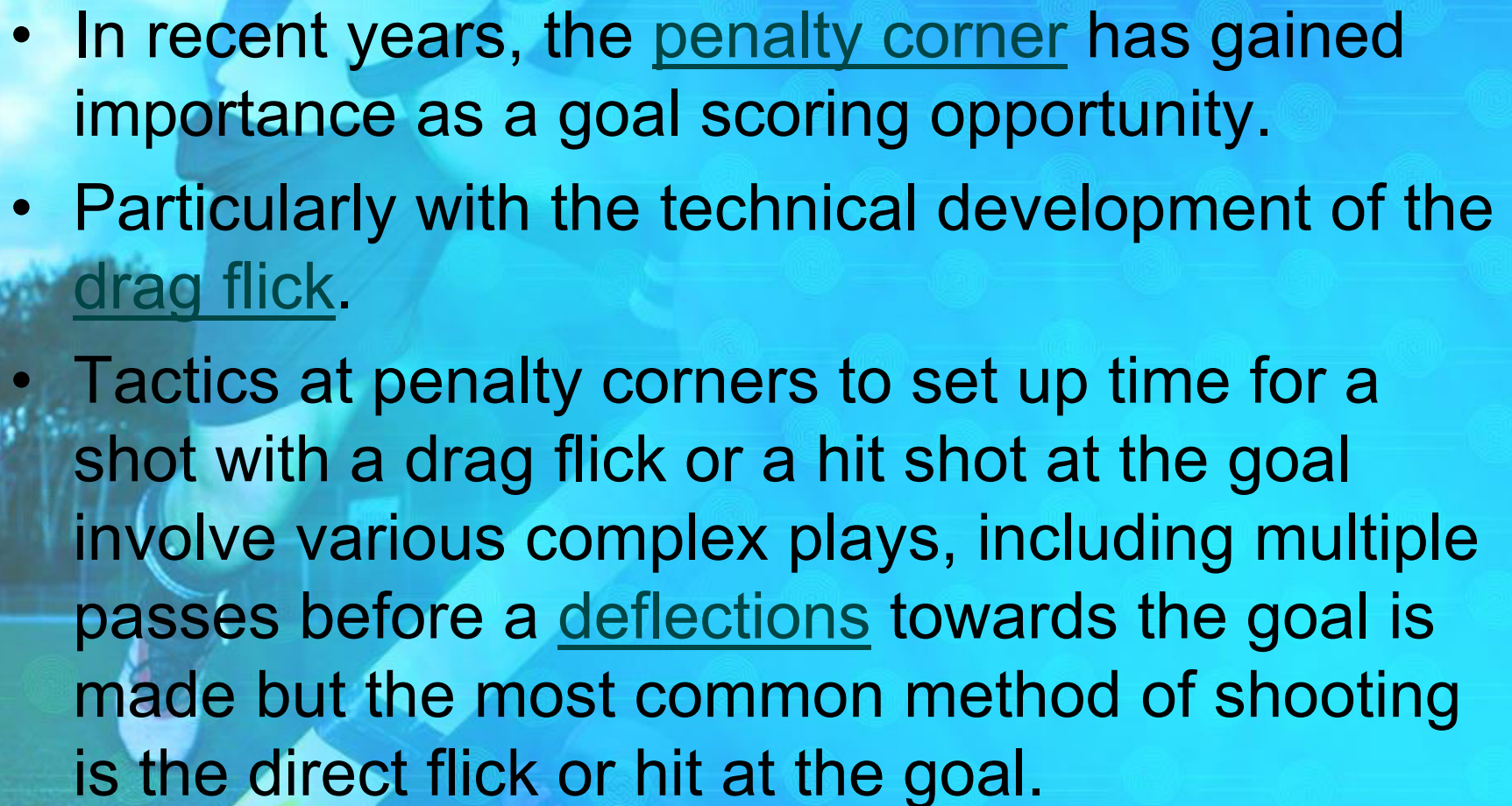
- **Tackling from the Left**
- **Receiving from the Rear**

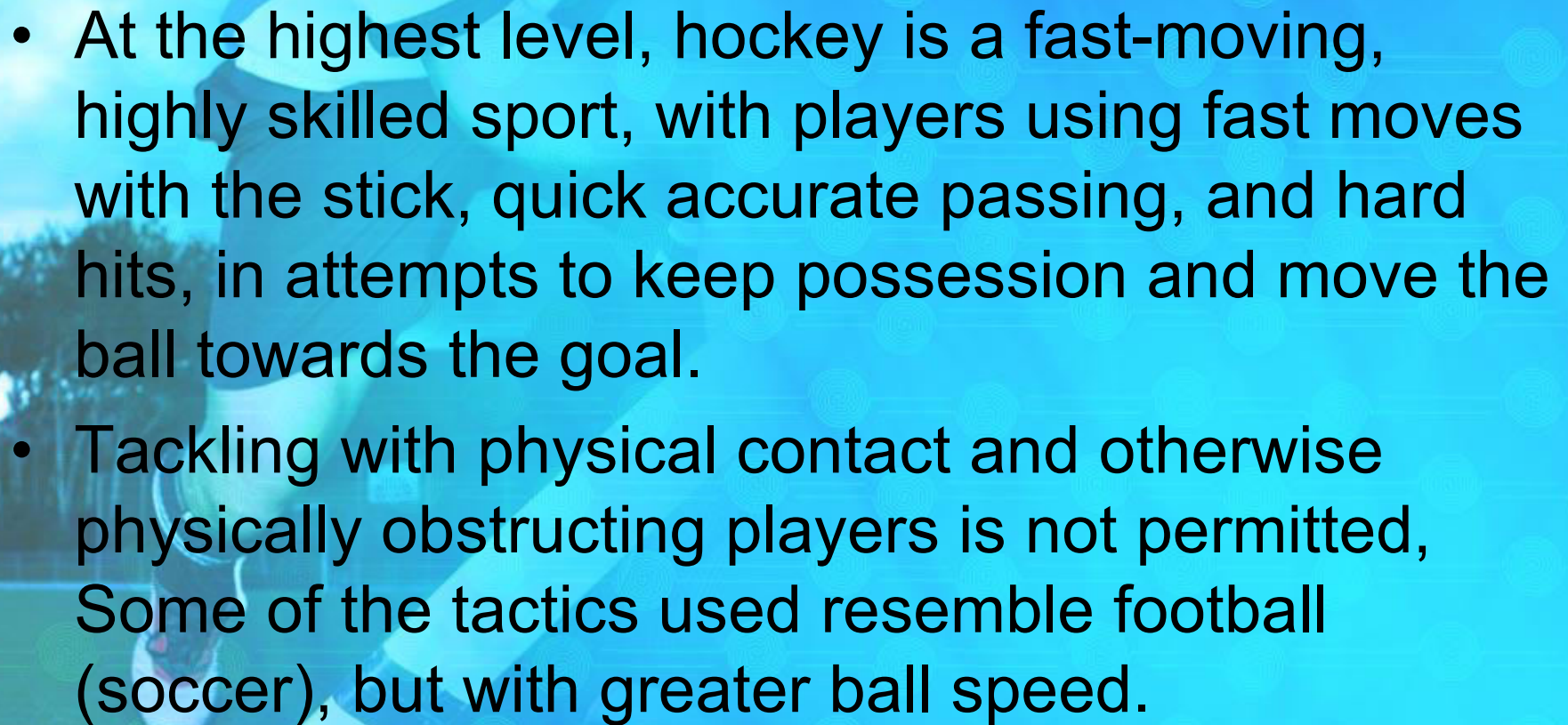
Tactics:

- The basic tactic in hockey, as in football (soccer) and rugby and many other team games is to outnumber the opponent in a particular area of the field at a moment in time.
- When in possession of the ball this temporary numerical superiority can be used to pass the ball around opponents so that they cannot effect a tackle because they cannot get within playing reach of the ball and to further use this numerical advantage to gain time and create clear space for making scoring shots on the opponent's goal.
- When not in possession of the ball numerical superiority is used to isolate and channel an opponent in possession and 'mark out' any passing options so that an interception or a tackle may be made to gain possession.
- Highly skillful players can sometimes get the better of more than one opponent and retain the ball and successfully pass or shoot but this tends to use more energy than quick early passing.

- The main methods by which the ball is moved around the field by players are a) passing b) pushing the ball and running with it controlled to the front or right of the body and 3)"dribbling"; where the player controls the ball with the stick and moves in various directions with it to elude opponents.
- To make a pass the ball may be propelled with a pushing stroke, where the player uses their wrists to push the stick head through the ball while the stick head is in contact with it; the "flick" or "scoop", similar to the push but with a additional arm and leg and rotational actions to lift the ball off the ground; and the "hit", where a swing at ball is taken and contact with it is often made very forcefully, causing the ball to be propelled at velocities in excess of 70mph.
- In order to produce a powerful hit, usually for travel over long distances or shooting at the goal, the stick is raised higher and swung with maximum power at the ball, a stroke sometimes known as a "drive".

- 
- Tackles are made by placing the stick into the path of the ball or playing the stick head or shaft directly at the ball.
 - To increase the effectiveness of the tackle, players will often place the entire stick close to the ground horizontally, thus representing a wider barrier.
 - To avoid the tackle, the ball carrier will either pass the ball to a teammate using any of the push, flick, or hit strokes, or attempt to maneuver or "drag" the ball around the tackle, trying to deceive the tackler.

- 
- In recent years, the penalty corner has gained importance as a goal scoring opportunity.
 - Particularly with the technical development of the drag flick.
 - Tactics at penalty corners to set up time for a shot with a drag flick or a hit shot at the goal involve various complex plays, including multiple passes before a deflections towards the goal is made but the most common method of shooting is the direct flick or hit at the goal.

- 
- At the highest level, hockey is a fast-moving, highly skilled sport, with players using fast moves with the stick, quick accurate passing, and hard hits, in attempts to keep possession and move the ball towards the goal.
 - Tackling with physical contact and otherwise physically obstructing players is not permitted, Some of the tactics used resemble football (soccer), but with greater ball speed.

Techniques: Tackling From The Left - Too Dangerous And Scary

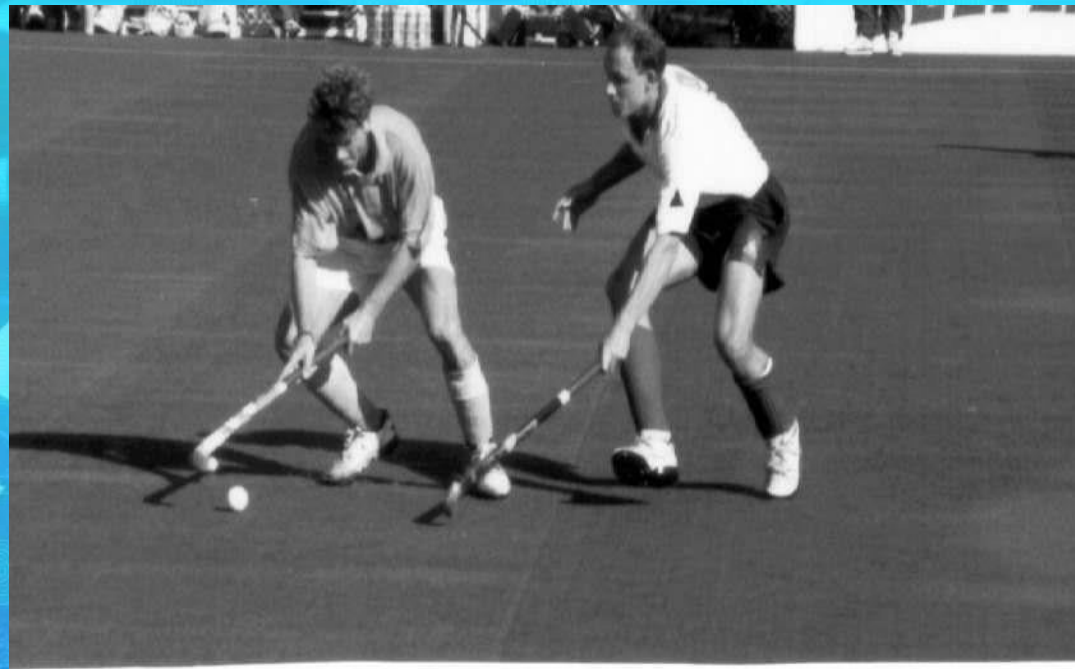
- **HOW TO TACKLE FROM the LEFT—STEPS:**

- **First step. Hold the stick in the left hand only**
- **Never get caught in the No Man's Land—Danger Zone—when the defender is in the process of hitting the ball.**
- **Try to hop into the No Man's Land—Danger Zone—when the hitter is in the process of Receiving, Controlling and Dribbling the ball. Please see photograph No.1.**
- **Try to put pressure. Play the cat and mouse game.**
- **Never Ever stay in this Danger Zone when the hitter has taken the back swing to hit the ball.**

The most important thing to do is HOP CLOSER and bring your body very close to the back of the hitter. The whole body—including legs and arms—must be behind the hitter's back. Your head and face also covered and protected behind the hitter's head.

Photograph No.1.:

Netherlands vs. Great Britain, Olympic Qualifier, Spain, 1996 Dutch defender is in process of controlling the ball; GB forward, Rob Thompson, has jumped into the DANGER ZONE to exert pressure Please observe Rob's body position. If the Dutch player decides to hit the ball quickly, Rob can hop into the NEUTRAL ZONE.





Techniques: Receiving the ball with your back towards the attacking goal

ADVANTAGES:

- Players receiving a pass with their back to the opponent's goal have a big advantage. They can cover—protect—the ball with their whole body. The chances of keeping possession are much higher than in the past—even in tight marking situations.
- Smart players can receive then spin with the ball, changing direction to either side to beat an opponent. Players can receive the ball and lay it off with one touch to either side for a team mate coming through or overlapping. In the game phase, when the objective of the team is just to maintain possession.
- **For example:** when there are 5 minutes left to play and the team is leading by one goal.
These are the major advantages, if one knows when, where, why and how to use this skill and exploit the opponents.

DISADVANTAGES:

- When a player is receiving the ball with his back towards the goal he is attacking, for a few seconds his vision of the field behind him is blurred and he loses contact with the changing game situation.
- This deprives the forward of the awareness of the latest changes which have occurred, especially in a breakaway or counter attack game situation.
- When the forward is spinning and curling with the ball it gives the defense a golden opportunity to Recover and Reorganize.
- In certain attacking game situations **delays are dangerous** and the attacking team doesn't want the defense to settle.
- In a breakaway situation, it takes a forward with his back towards the attacking goal extra seconds to control the ball and take off for scoring. In these extra seconds a good defense can create a lot of obstacles.

CONCLUSION:

- Receiving the ball with the back towards the attacking goal. **This move is a *negative* one. It is done more out of fear than desire: fear is bad, desire is positive and powerful.**
- With the tilted body, the chances for losing possession while receiving are greater. But, when one masters the skill—art?—the advantages are far more. **The Higher the Risk, The Higher the Reward.**
- We should teach our players—especially juniors—to know when, where, why and how to use this skill to their maximum advantage. More importantly, they should develop the art of receiving the ball with a tilted body on the run.
- When one exposes the ball, while in the process of receiving, this entices the defender to commit, especially on a common ball. This gives him a false impression that he can get the ball, but instead he gets beaten. Just like a fish, he has taken the bait.

Receiving from the rear - Examples

- These action photographs were taken during the 1995 Pan-American Games.
- The Canadian Women's team was playing against Paraguay.
- Canada is attacking near the opponent's 25 line.

Photograph 1

- The Canadian forward is receiving the ball with her back towards the attacking goal.
- Here is a situation where three other Canadian players are open.
- But it appears from the body language of the receiver that it will be a few seconds before she will control and pass the ball.

Photograph 1



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Photograph 2 and Photograph 3

- The Canadian forwards have taken intelligent and timely leads to receive the ball on the run and eliminate the opponent.
- The advantage of this attacking pattern is that the flow of the attack is maintained.

Photograph 2 and Photograph 3





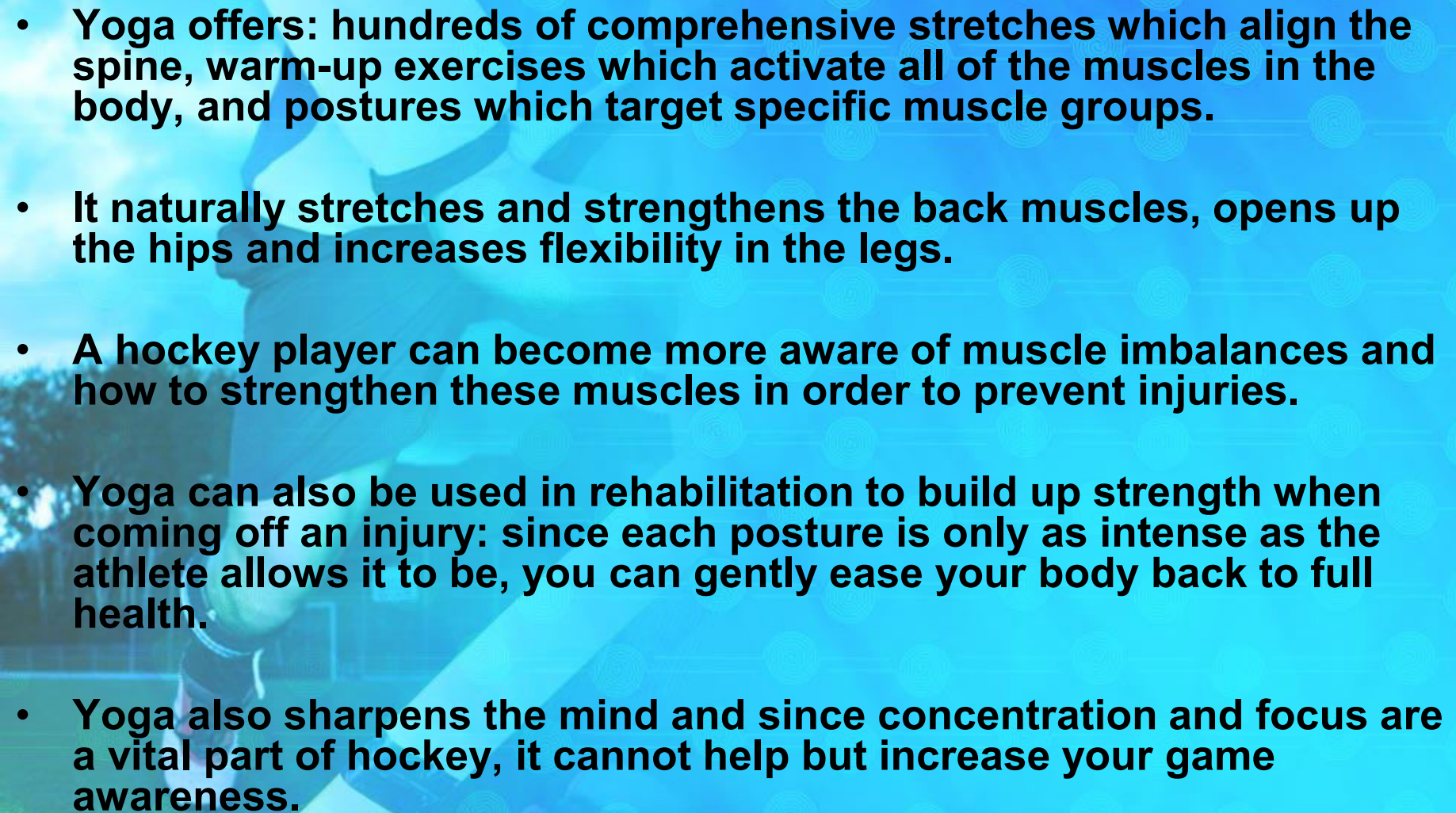
❖ Asanas for Hockey players

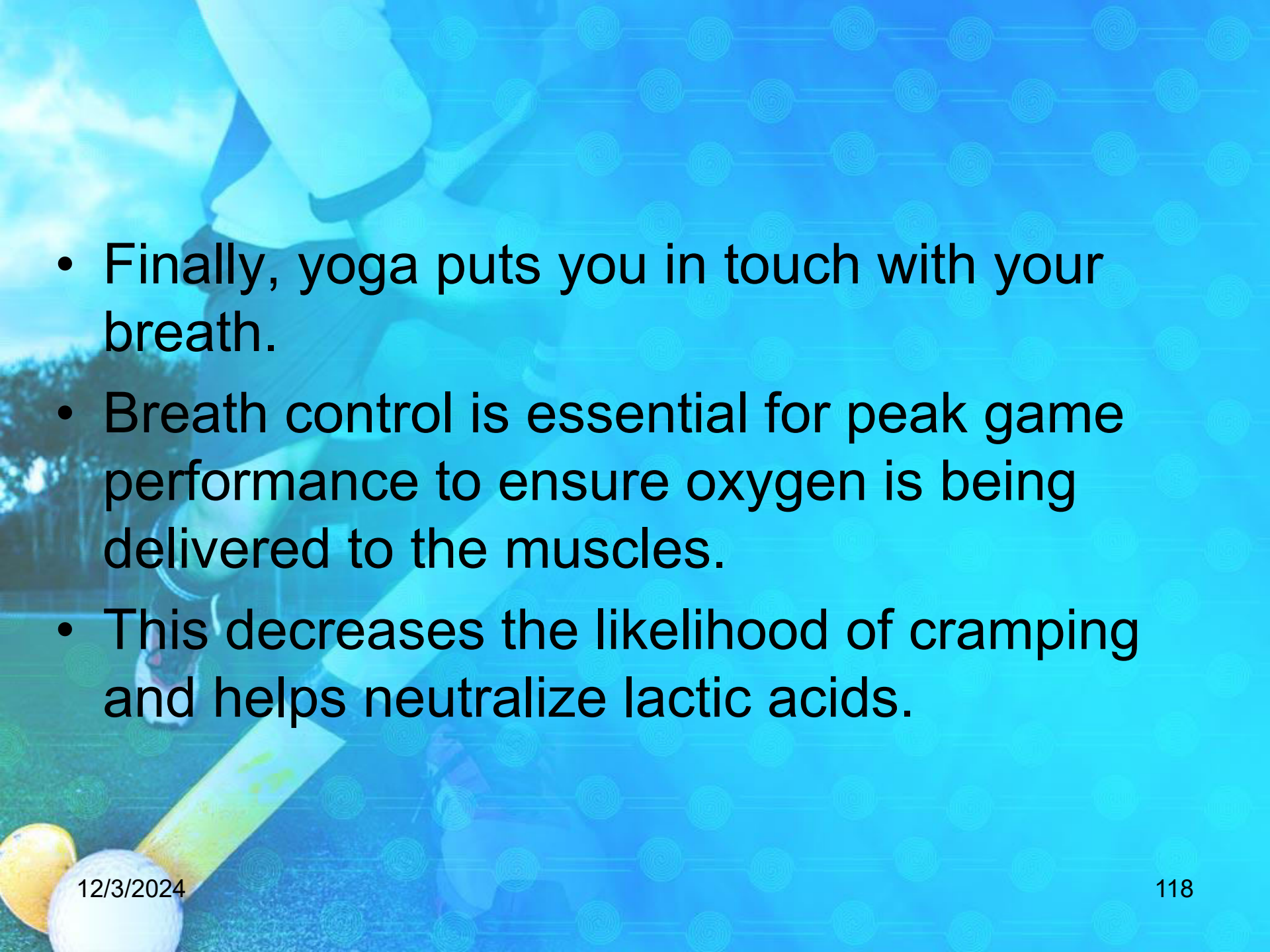
❖ Asanas for Hockey players

- **Yoga for Hockey:**
- **1. Yoga and how it can benefit the athlete**
- **2. Yoga for hockey. Posture #1: The Cobra**
- **3. Yoga for hockey: Posture # 2: Paschimothanasana**
- **4. Yoga for Hockey: Reclining Spinal Twist (Modified Ardha Matsyendrasana)**

1. Yoga and how it can benefit the athlete:

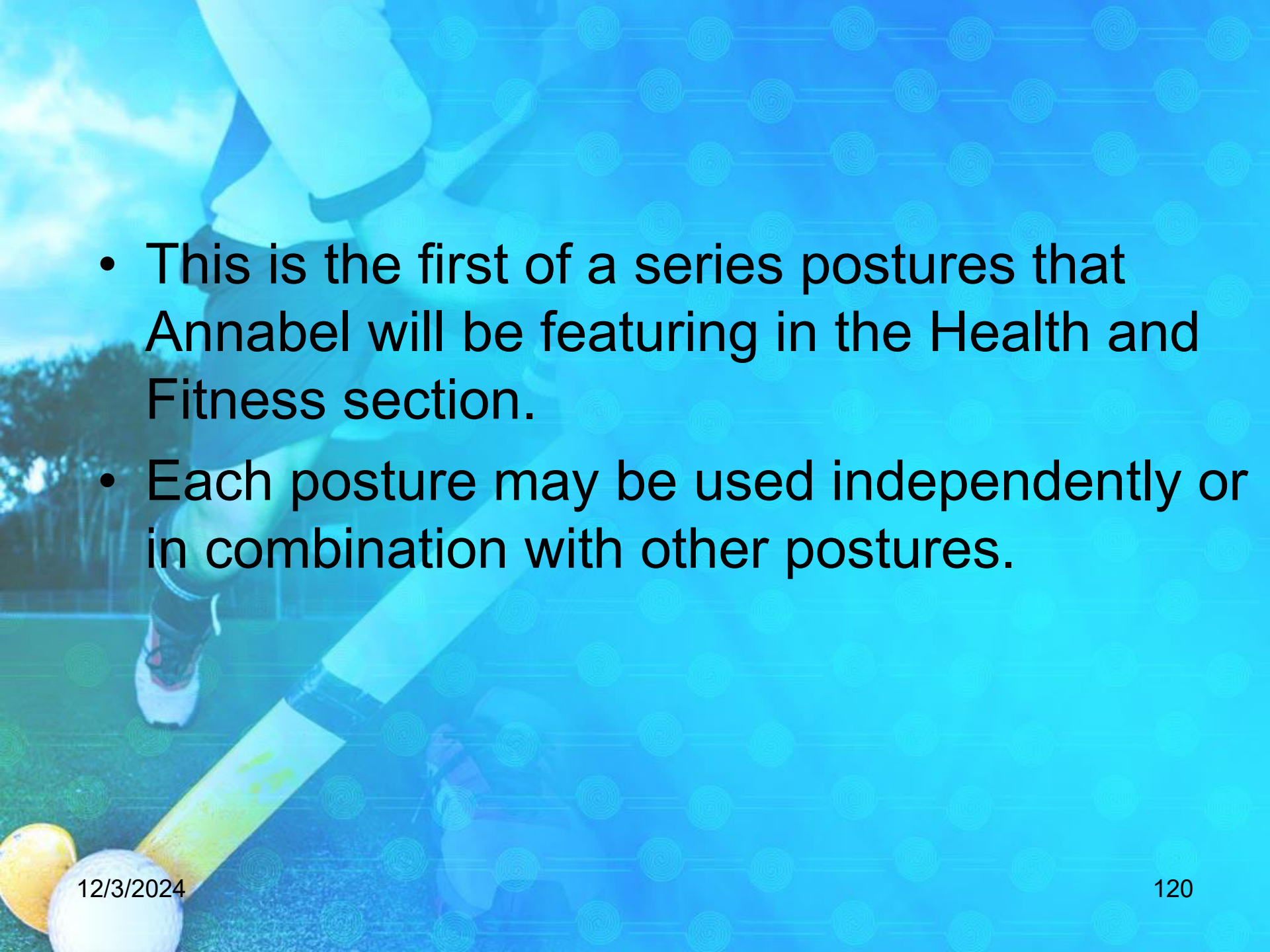
- It a powerful tool for stretching and strengthening the muscles and increasing flexibility.
- It is also offers a comprehensive way of increasing concentration and maximizing the breath.
- yoga increased the productivity of hockey players workouts and reduced muscle fatigue and stiffness.

- 
- **Yoga offers: hundreds of comprehensive stretches which align the spine, warm-up exercises which activate all of the muscles in the body, and postures which target specific muscle groups.**
 - **It naturally stretches and strengthens the back muscles, opens up the hips and increases flexibility in the legs.**
 - **A hockey player can become more aware of muscle imbalances and how to strengthen these muscles in order to prevent injuries.**
 - **Yoga can also be used in rehabilitation to build up strength when coming off an injury: since each posture is only as intense as the athlete allows it to be, you can gently ease your body back to full health.**
 - **Yoga also sharpens the mind and since concentration and focus are a vital part of hockey, it cannot help but increase your game awareness.**

- 
- Finally, yoga puts you in touch with your breath.
 - Breath control is essential for peak game performance to ensure oxygen is being delivered to the muscles.
 - This decreases the likelihood of cramping and helps neutralize lactic acids.



- **2. Posture #1: The Cobra**

- 
- This is the first of a series postures that Annabel will be featuring in the Health and Fitness section.
 - Each posture may be used independently or in combination with other postures.

Cobra Starting Position



Cobra




Cobra



BENEFITS OF THE COBRA

- Strengthens, tones and rejuvenates the deep and superficial muscles of the back (especially the thoracic region).
- Increases flexibility in the spine and releases tension in the lower back. Massages the abdominal muscles, relieving gastro-intestinal problems, menstrual cramping and other abdominal discomforts.

- 
- **3. Posture # 2: Paschimothasana**
Head to Knee Posture or Seated Forward Bend



Paschimothanasana: Starting Position



Coming into the position



Final position



Contraindicated pose: start



Contraindicated pose: final

BENEFITS:

- Hockey players commonly hold tension in the calves, quads, hips and lower back. This posture provides a deep muscle stretch for the entire back side of the body, from the calves, the hamstrings, up through the gluteal muscles, and right into the lower back.
- It is an excellent stretch to do right after a practice or game. Since tight hamstrings and quadriceps go hand in hand, this posture will aid in increasing flexibility in the backs of the legs, naturally encouraging a release of tension in the quads and hips. Not only does the stretch increase flexibility in the legs and back, it also massages and tones the abdominal area, improves digestion, and stimulates the entire nervous system.



- **4. Reclining Spinal Twist (Modified Ardha Matsyendrasana)**

- **Starting Position:**

Lying on back, bend both knees, and place feet flat on the floor. Cross the right leg over the left leg, with the bottom of the right knee closely hugging the top of the left knee.

Place the left hand on top of the right knee, and guide the knees to the floor on the left side of the body.

Ardha Matsyendrasana: Starting Position



•Final Position:

- Turn the head gently to look over the right shoulder, and stretch the right arm along the floor to the right side of the body. (The arm will be at a 90 degree angle from the torso).
- Hold the position for at least 60 seconds, using the breath to gently increase the stretch. Repeat on the other side.

Ardha Matsyendrasana: Final Position





- Coming out of the posture:

- Allow the head to turn back to a neutral position, gently bring the knees back up, uncross the legs and place both feet flat on the floor.
- Arms are relaxed on either side of the body, before repeating on the opposite side.

Common Mistakes:

- Holding the breath - breathe deeply, allowing the breath to fill the torso on the inhalation and releasing slowly on the exhalation.
- Shoulder tension - make sure the shoulders are relaxed away from the ears. Ideally, the shoulders should both remain on the floor.
- Forcing the knees to the floor - allow the hand to gently guide the knees closer to the floor, using the breath to increase the stretch. Be gentle!
- Facial tension - make sure that the jaw and facial muscles are relaxed. Allow the tongue to rest on the floor of the mouth.

Benefits:

- Since hockey players are prone to tension in the lower back and hip area, this posture is ideal directly after a tough practice or game to alleviate stiffness.
- By giving the body a side twist, this posture increases flexibility in the spine and massages the muscles of the back, while releasing tension in the lumbar region and the hips.
- The posture provides a subtle stretch to the iliotibial band and stretches the intercostal muscles and the chest area. It also massages the abdominal organs and stimulates the tracts of the major sympathetic nerves.
- By opening up the body, this posture encourages deep breathing and a lengthening of the spine and torso.

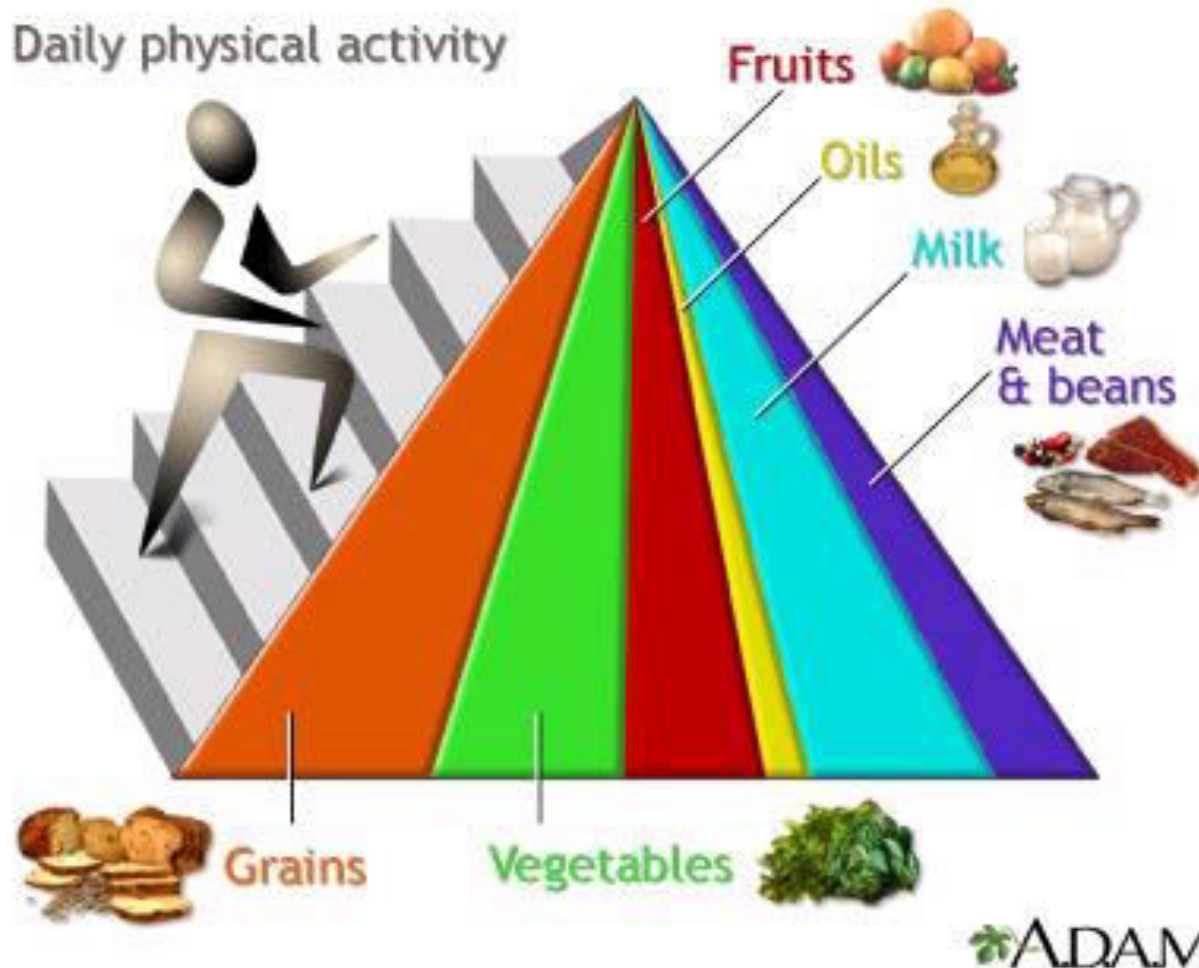
❖ Diet for Hockey players

- Energy expenditure in hockey is position specific, energy expenditure ranged from 1388Kcal for centre midfield and 1022Kcal for the left corner forward position (Boyle, et al). The unique requirement of dribbling the ball in a semi crouched position has been shown to increase energy expenditure by 15-16kJ.min.
- As competitive matches require players to expend energy at high levels, it is essential to consume enough calories. Basic dietary recommendations for a hockey player are:
 - Carbohydrate: 7-10g.kg.bw
 - Protein: 1.4-1.7g.kg.bw
 - Fat: 20%

1. Nutrition goals

- **Plan eating in conjunction with workouts in an effort to insure adequate fuel to optimize performance and delay fatigue.**
- **Eat every three hours to ensure the body a consistent fuel source that provides the energy substrate (a substance on which an enzyme acts) for sport.**
- **Consume an adequate caloric level to meet your needs. Inadequate calories will hasten fatigue, contribute to poor performance and increase muscle breakdown. See "Custom Nutrition Goals".**
- **Provide the body with the right mix of nutrients, emphasizing carbohydrates. Visualize a peace sign. The triangle at the bottom of the peace sign should be protein, such as chicken, red meat, pork, fish or eggs. The remaining sections should include starch (pasta, rice, bread or cereal), and fruit or vegetables.**
- **Drink adequate fluid for high-intensity activity, to optimize performance and to prevent injuries. See "Hydration Guidelines".**

Daily physical activity



2. Custom nutrition goals

- Calories: Minimum weight (pounds) x 23 (For example: a 150-pound athlete would require at least 3,650 calories per day)
- Carbohydrate: Weight x 3 to 5 = grams carbohydrate per day
- Protein: Weight x 0.7 = grams protein per day
- Fat: Weight x 0.45 = grams fat per day
- Fluid: Minimum weight x 0.67 = ounces fluid per day

**Do
Sparingly**

Play computer games, watch TV, use labor saving devices like escalators

Recreational Activities

2-3 days/week

Golf, Bowling, Baseball, Soccer, Hiking, In-line Skating, Dancing, Canoeing, Yoga, Martial Arts

**Aerobic
Exercise**

**3-5 days/week
20-60 minutes**

Running, Cycling, Cross Country Skiing, In-line Skating, Stair Stepping

**Flexibility
Exercise**

2-3 days/week

Static stretching of major muscle groups, Hold each pose 10-30 seconds

**Strength
Exercise**

**2-3 days/week
8-10 exercises**

1 set of 8-12 reps
Bicep curl, Tricep press, Squats, Lunges, Push-ups

Physical Activity

**Most Days of the Week
Accumulate 30+ minutes**

Take the Stairs
Garden
Wash & Wax your Car
Rake Leaves
Mow the Lawn

Walk to do your errands
Walk the dog
Clean your house
Play with your kids

3. Hydration guidelines

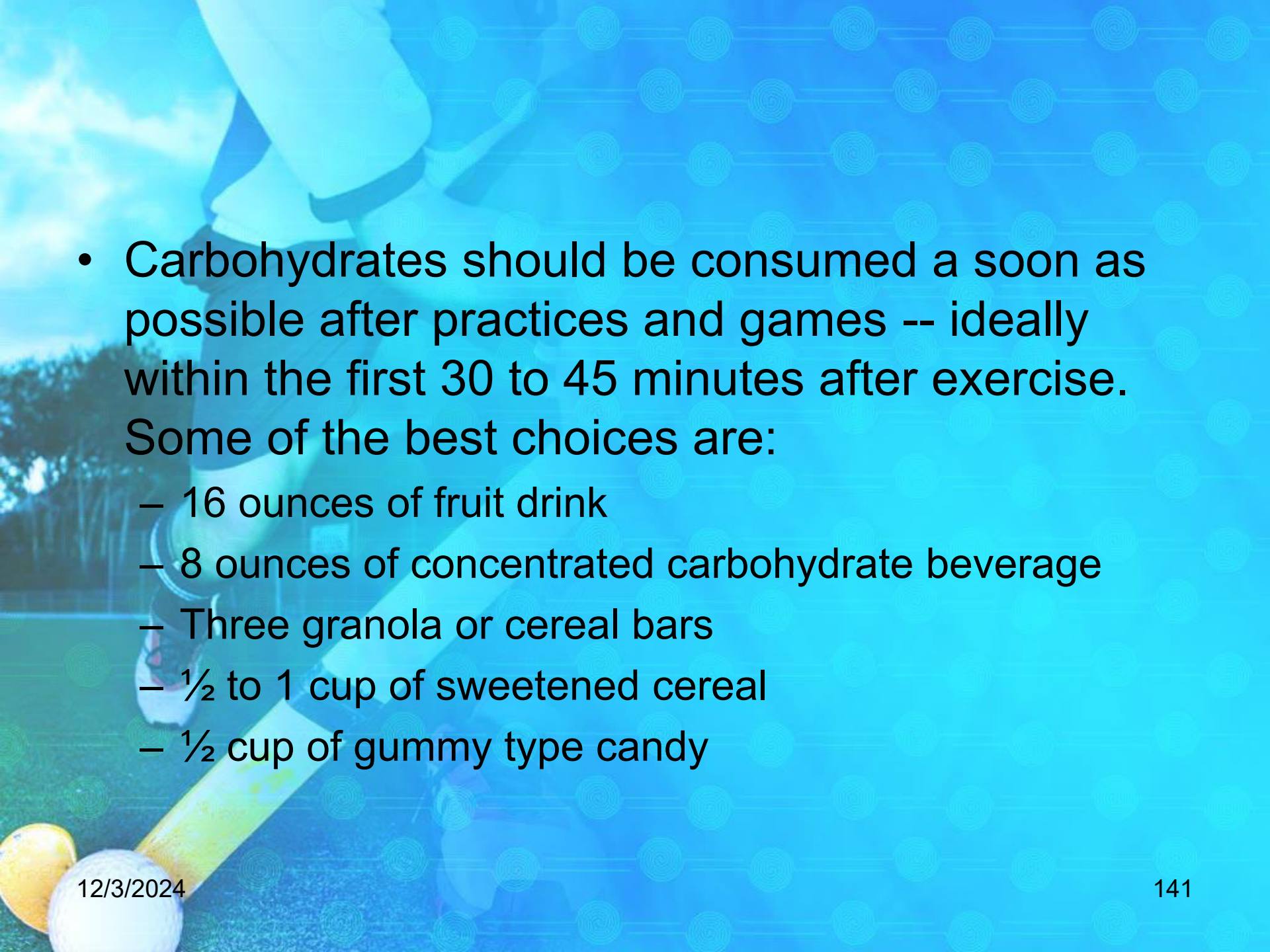
- Water: Drink 16 ounces of water before bed, after first morning void and two hours before a practice or game.
- Fluids: The best choices are water, sports drinks, and juices or fruit drinks diluted in a one-to-one ratio. Caffeinated, carbonated or alcoholic beverages are poor choices.

Drink:

- Eight to 10 ounces, 10 minutes before a game. Try this in practice first!
- Six to 8 ounces at all breaks during practices or games.
- Twenty-four ounces after practices and games for every pound lost!

4. Competition eating

- Coordinate eating before, during and after practices and games. Pre-activity meals should primarily include carbohydrates, such as pasta, stir-fry, waffles or pancakes, or a fruit smoothie made with milk, yogurt, pudding mix and juice. Consume a sports drink or diluted fruit drink immediately before taking the ice. This plan will provide additional fuel for the body during exercise.
- During exercise, consume carbohydrates at every opportunity. Sports drinks, diluted fruit drinks, a handful of sweetened cereal, gummy type candy or sports gel with 8 ounces of water will provide additional fuel to working muscles.

- 
- Carbohydrates should be consumed as soon as possible after practices and games -- ideally within the first 30 to 45 minutes after exercise. Some of the best choices are:
 - 16 ounces of fruit drink
 - 8 ounces of concentrated carbohydrate beverage
 - Three granola or cereal bars
 - ½ to 1 cup of sweetened cereal
 - ½ cup of gummy type candy

5. The bottom line

- Eat every three hours
- Drink a beverage with every meal and between meals
- Eat and drink during breaks and practices
- Emphasize carbohydrates
- Eat soon after leaving the ice

❖ Discussion – “Role of Women in Hockey”

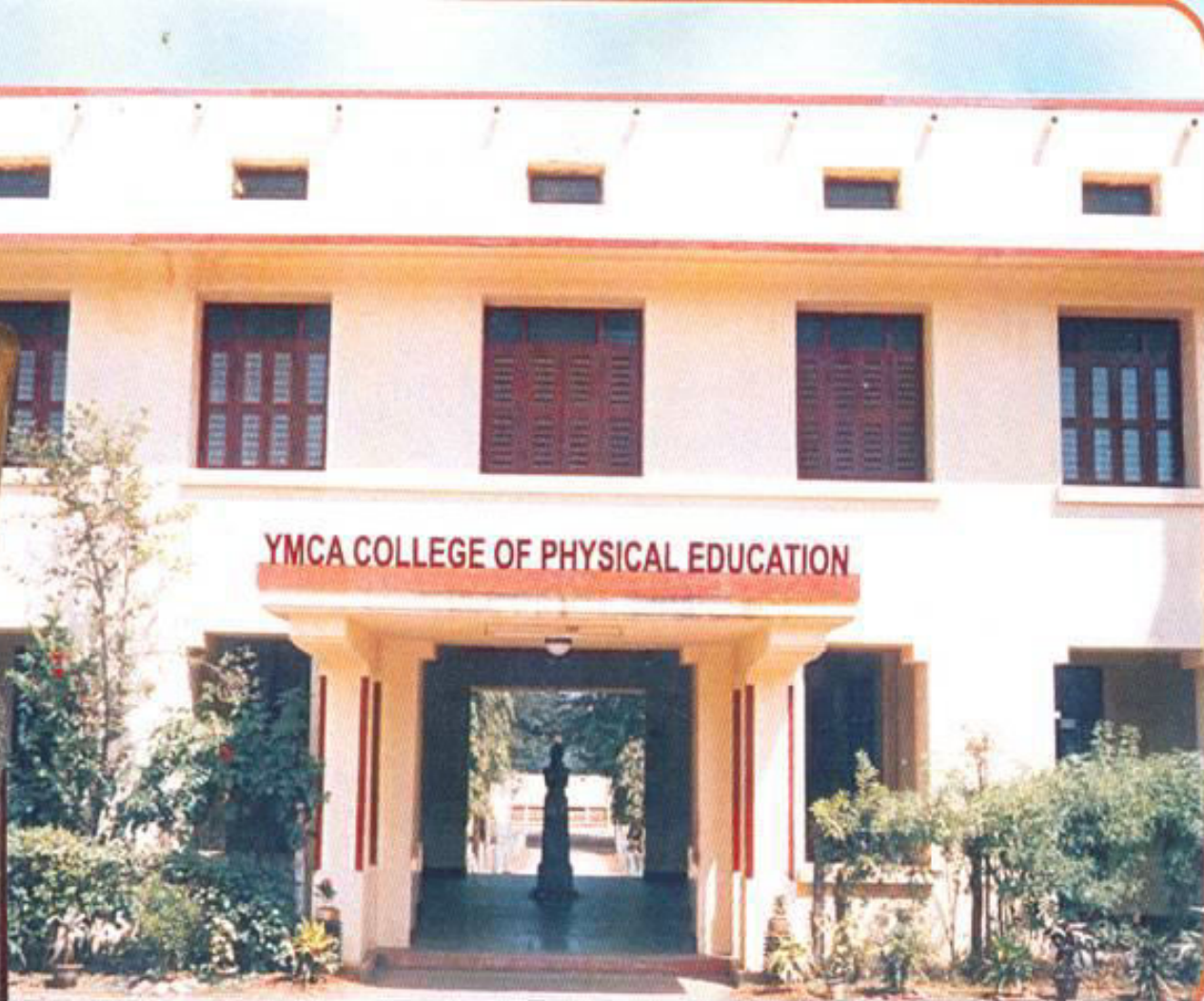


12/3/2024

❖ Conclusion



- **Field hockey** is a team sport in which a team of players attempt to score goals by hitting, pushing or flicking the ball with hockey sticks into the opposing team's goal.
- **TOGETHERNESS IS STRENGTH !**



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REFERENCES

- Women Hockey.Org
- www.canadianhockey.ca
- www.whoockey.com
- www.nwhlhockey.com
- www.ncaasports.com/icehockey/womens
- www.usahockey.com
- www.IIHF.com
- www.olympic.org

- International Hockey Federation

External links

- The FIH - the game's international governing body
- FIH Rules of Hockey 2007-08 (pdf file)
- FIH Rules of Hockey 2007/8 Briefing and Guidance for Umpires (pdf file)
- Wikipedia Commons has media related to:
Field hockey



• THANK YOU