



LONG TERM HOCKEY DEVELOPMENT IMPLEMENTATION RESOURCE PAPER





An Introduction

Children who enjoy playing field hockey from a young age will be healthy and more likely to continue in life long physical activity. In addition, if they are well trained and have access to an appropriate development pathway, more of them will reach elite playing levels that enable our National Teams to qualify and compete consistently at World Cups and Olympic Games. Long-Term Hockey Development (LTHD) addresses the important role that field hockey has in promoting wellness and also provides an athlete development pathway for World Cup and Olympic success.

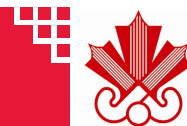


FHC wants to increase the number of Canadians participating in our sport across the country. We also want to improve our National Men's and Women's Teams' world rankings. The paths to achieving these goals are complex. While we can take elements of what has worked for us in the past, we will still need to take a different strategic approach than the one we have had for the past 20 years.

Led by the LTHD expert panel and technical leaders, FHC has identified many of the challenges facing field hockey and laid out a vision and general course for implementation. The pathway involves shared leadership and cooperation from the local coach to the international governing body.

This document is just the start of a growing number of resources to aid in achieving the LTHD vision. To better adapt to the ongoing evolution of our sport and provide practical tools to our vast array of stakeholders (coaches, umpires, parents, volunteers, etc.) FHC has created an interactive website designed specifically for our members to explore LTHD. This resource, among others, is available to download and will be updated from time to time.

Please continue to visit us at www.lthd.fieldhockey.ca for the latest LTHD information.



Field Hockey: A Sport for Everyone

The origins of field hockey can be traced back to the earliest civilizations of the world, but the modern game was developed in England during the nineteenth century. Many rules and concepts changed during the early years as the game spread throughout the British Empire. From these origins sprung not only the formidable field hockey nations of India, Pakistan and Australia, but the development of the game in over 100 countries.

While the game developed across the globe during this time, so too did field hockey in Canada. Both men's and women's field hockey was established and flourishing in British Columbia before the end of the nineteenth century. Records show that as early as 1896 clubs in Vancouver and on Vancouver Island were enjoying regular competitions. In the early twentieth century records show games being played by schools and clubs in Calgary, Toronto, Halifax, and St. John's.



Field hockey began to organize at a national level in 1961 with the creation of the Canadian Field Hockey Association. The Canadian Women's Field Hockey Association was formed a year later. In 1991 both the men's and women's associations merged to become Field Hockey Canada (FHC). FHC has been the national governing body responsible, in conjunction with our Provincial Associations, for the development of the game ever since.

Today, the game of field hockey is played virtually everywhere in the world and is the second largest team sport by participants after soccer. In Canada both the indoor and outdoor versions of field hockey remain a popular family-oriented sport played in every province. The sport is played most abundantly by girls in the high school system however male and female competitive and recreational leagues can be found in urban centres from coast to coast.

The men's and women's national teams regularly compete in international competitions held around the globe. Both genders have represented their country in major contests such as the World Cup, Commonwealth Games, Pan American Games, and Olympics. At any given time throughout the year Canadian athletes, coaches, officials, or volunteers can be found participating in their sport at various competitive levels in places such as Europe, Asia, and Oceania.



Understanding Long-Term Development

LTAD and LTHD

The Long-Term Athlete Development (LTAD) model is a framework developed by the Canadian Sport Centres providing an optimal training, competition, and recovery schedule that respects and utilizes the natural stages of physical, mental, and emotional growth in athletes. This framework has been adopted by major sports organizations in the United Kingdom and Ireland.

Long-Term Hockey Development (LTHD) is FHC's field hockey-specific adaptation of the LTAD model. It is athlete-centred, coach driven, and supported by officials, administrators, and volunteers. As with the LTAD, LTHD is designed to:

1. Promote lifelong enjoyment of physical activity
2. Provide a structured player development pathway
3. Describe best practices for elite player development
4. Create long-term excellence

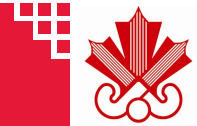


Excellence and Sport for Life

Anecdotal evidence for a Field Hockey athlete suggests that it takes 15,000 touches of the ball for an athlete to reach an elite level. Additionally, scientific research has demonstrated it takes eight to twelve years of training for players to reach elite levels. This translates into a little more than three hours of daily practice for ten years. (Balyi & Hamilton, 2003). This indicates the importance of long-term training for obtaining athletic excellence and competitive results. It has also been suggested athlete training following logical, progressive development pathways is linked to higher rates of lifelong recreational participation for individuals of all abilities.

Many field hockey coaches continue to train youth athletes in a manner that places emphasis on “fun” and “retention” while others emphasize “winning” a match or “winning” the season championship. These approaches are coach or parent-centred and are frequently neglectful of the long-term needs of the athletes. Both of these types of outcomes are given more importance than skill development, performance, and satisfaction. However it is the latter outcomes that can translate into higher levels of excellence and lifelong commitment to training and participation.

To produce lifelong wellness and consistent international excellence, an athlete-centred integrated model of player development is required. The model must respect the physical, mental, and emotional maturation of the players.



UNDERSTANDING LONG-TERM DEVELOPMENT

Planned Excellence

The current system for Athlete Development emphasizes winning and competition rather than maximizing the periods of accelerated adaptation to training and developing core field hockey skills. LTHD is based on general findings that the greater the quality of player preparation, the greater the likelihood that players of all abilities will remain active throughout their lifetimes, and the greater the likelihood that the performance peaks of those who pursue excellence will be higher and maintained over a longer period.

Rushing into competition frequently results in technical, physical, tactical, psychological, and emotional shortcomings that hinder performance. While premature competition actually detracts from performance and achievement, progressive player development following balanced formula of training, competition, and recovery tends to produce longer involvement in sport and higher achievement.

LTHD is designed to promote lifelong wellness for all field hockey participants and optimal performances for the elite players, particularly in the growth and development years when performances can become unstable and lead to dropout.

LTHD encourages athletes to enjoy the game and improve their performances through:

- Logical and integrated training and practice programs;
- Application of scientific principles in growth, development and maturation;
- Provision of an optimal structure for competition at stages of LTHD;
- Identification of stakeholder roles in the implementation of the support systems of athlete development (ie. Coaching, officiating).

Public Perception

Field Hockey has an important role to play in the larger sport culture of our country. There is an intrinsic value in having our elite athletes represent Canada on the international stage. When Canadians watch the Olympic Games or any other major world sporting event, we cheer our athletes and are proud to see our nation competing among the best in the world.

Field Hockey is no exception in this regard. Canada excels to be among the top nations in this sport making our athletes a source of our national pride, dreams, and expectations. Canadians of all ages want to see their national teams compete and succeed at the international level. The LTHD pathway is designed to achieve this goal.



Stages of LTHD

Sports can be classified as early or late specialization. Sports such as gymnastics and figure skating qualify as early specialization, while other sports such as soccer and field hockey are classified as late specialization.

Because field hockey is a late specialization sport, LTHD actively discourages early specialization since premature specialization contributes to imbalanced physical development, overuse injuries, early burnout, and inadequate development of movement and sports skills.

In harmony with the Long-Term Athlete Development (LTAD) model developed by Canadian Sports Centres and currently being adopted by over 50 sports organizations in Canada and around the world, LTHD recognizes these 7 stages in the development of field hockey players:

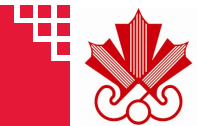
- Stage 1: Active Start: Ages 0-U6
- Stage 2: FunStix: Ages 6-10
- Stage 3: Learning to Train: Ages 9-12 males, 8-11 females
- Stage 4: Training to Train: Ages 12-16 males, 11-15 females
- Stage 5: Training to Compete: Ages 16-19
- Stage 6: Training to Win: Ages 19 and beyond
- Stage 7: Hockey for Life: All ages



The first three stages of LTHD encourage physical literacy for all players, regardless of their abilities or disabilities, and correspond to the ages prior to the adolescent growth spurt (PHV). Stages four, five, and six focus on developing excellence and correspond to PHV's onset and aftermath. Stage seven encourages lifelong physical activity, and players may choose to enter this stage at any time in their playing career.

FHC has identified the LTHD pathway as the desired model for player development in Canada. LTHD answers the need to develop elite players for international competitions such as the World Cup, Olympic Games, and Champions Trophy. It also promotes field hockey as an active lifestyle for athletes at all ages and levels of ability.

Detailed guidelines are provided in this document for the physical, technical, tactical, mental, and health components recognized as essential to athlete development in each stage of our sport.



Active Start

Boys and Girls Age 0 – U6

This stage sees young children beginning to learn and adapt basic movement and motor skills through various scenarios and environments they are involved in on a daily basis. Physical activity should be fun and part of a child's daily life (home, playground, daycare, elementary school programs, community clubs etc.). The emphasis is on discovery and building confidence of physical literacy in a positive surrounding.

An early active start enhances development of brain function, coordination, social skills, gross motor skills, emotions, leadership, and imagination. It also helps children build confidence, develop posture and balance, build strong bones and muscles, promote healthy weight, reduce stress, improve sleep, learn to move skilfully, and learn to enjoy being active.

Children should see at least 30 minutes of organized physical activities and hours of unstructured play in a wide variety of sports and physical activity every day. Activities can be in bouts of 5-10 minutes but, except when sleeping, no more than 60 minutes at a time of sedentary activity is recommended. Allow children to learn and experiment with basic movement and motor skills in a fun and encouraging environment.



Physical

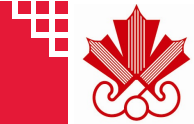
Fun, structured and unstructured activities are used to learn and promote physical literacy. ABC's, (Agility, Balance, Coordination) and Speed and Run, Jump, Throw are put into effect.

Mental

Promote fun, discovery, participation, and reinforce individual efforts.

Mental capabilities: Fun and enjoyment of the game, participation and sportsmanship, positive interaction with others, and building confidence and self esteem.

Some implications for the coach: Promote participation and enjoyment of the game, provide positive reinforcement for efforts, select activities in which success is almost always guaranteed, progress from simple to complex in a gradual fashion, de-emphasize outcome and encourage fun, and focus on participation and good spirit versus outcome



ACTIVE START

Health

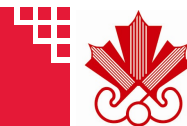
Participants have at least 30-60 minutes of organized physical activities and hours of unstructured play every day. Activity can be in bouts of 5-10 minutes but no more than 60 minutes of sedentary activity at a time (except when sleeping).

Nutrition: Promote healthy weight and encourage a variety of low fat, high in nutritional content meals. Allow child to eat as needed letting him/her use their natural ability to monitor and control food intake. Participants may need to eat smaller amounts more frequently. Optimization of hydration is important.

Participants should sleep as much as desired.

Strength and Flexibility: Greater strength in neck and back muscles than abdominals.





FunStix

Boys and Girls Age 6-10

In the FunStix stage children need to participate in a variety of well-structured activities that develop basic field hockey skills and promote interest in physical activity. Physical literacy continues to be developed through activities involving the athlete in as many sporting activities as possible throughout the week. It is important that all children master fundamental movement skills before sport specific skills are introduced.

Competition should involve no formal game play. Modified games, such as the FunStix mini game, should be introduced. All activities are fun-based. The focus should be on creating self-esteem within participants by reinforcing individual effort and not keeping score. Activities should be incorporated into everyday life including unstructured play with friends and through quality instruction in a structured environment in physical education classes, hockey clubs, and junior programs designed by provincial field hockey associations.



The first window of trainability for speed, particularly hand and foot speed, as well as the trainability windows for flexibility and fundamental skills occurs at this stage. This refers to the point in the development of a specific area when training has an optimal effect. However it should be noted all systems are always trainable!

Physical

Fun fitness activities are used to begin developing aerobic fitness, muscular strength/endurance with own body weight, flexibility, and stability. This stage features the first “window” of speed training (accelerated adaptation to training), for girls 6-8 girls and boys 7-9.

Developing physical literacy is fundamental with emphasis on developing basic movement skills: Running, Jumping, Striking, Catching, and General Motor Abilities (ABCs: Agility, Balance, Coordination, Speed).

Technical

Athletes are introduced to the Five FunStix Principles of Hockey and their related stage-appropriate skills. These Principles are:

- Ball Movement and Control
- Passing & Receiving
- Scoring
- Winning the ball from Opponents
- Mini and Modified Games

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FUNSTIX

Hockey Skill Introduction: Open stick dribbling, Indian dribble, push pass, backhand pass, closed receiving, and double-handed block tackle.

All skills should be trained in both stationary and dynamic positions. As a unique aspect of field hockey, particular emphasis should be on the use of the reverse side of the stick and turning the stick over. This is a significant motor skill requiring introduction at this early age.

Tactical

The push pass, and its associated decision-making component, is the most important basic tactical skill in this stage. The most essential decisions around passing are: Timing, Direction, and Speed.

In the modified games the push pass will keep the games flowing and is a key building block to the introduction of “set plays” as the athletes and coaches progress on to full games. Pushing is also the technique used for scoring in this stage.

Focus on fun games that promote teamwork and exploration of spatial awareness. Holding festivals at the end of season or end of program emphasizes fun and participation.

Mental

Coaches focus on creating self-esteem within participants through reinforcement of individual efforts (self and others) versus outcomes. For example, complimenting the technique used in a pass rather than if it reached its intended target. Emphasize and model sportsmanship and open communication with coach and peers.

Mental capabilities: Experience enjoyment of competition, positive reinforcement of strengths, focus on effort-based goals versus outcome (winning), basic self awareness of thinking and feeling states, basic imagery with little structure (promote creativity), and sportsmanship and ethical play.

Some implications for the coach: Serve as positive role model, teach athletes that mistakes or poor performance are not “bad”, focus on processes (efforts) not on the outcome (winning), and start to develop basic self awareness.

Health

Participants have at least 90 minutes of physical activity every day with 60 minutes of moderate activity and 30 minutes of vigorous. Activities can be in bouts of 5-10 minutes.

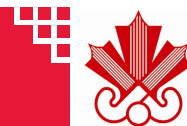
Nutrition: Ensure adequate nutrition, but avoid over-eating. Optimize hydration.

Participants sleep as much as desired.

Strength and Flexibility: Promote good movement pattern habits and proper technique. As sport specific training increases, choose alternate activities that emphasize different movements to decrease risk of injury from muscle imbalance. No maximal or near-maximal strength activities to preserve growth plates.

Equipment: Use equipment (ie. Sticks, balls) to match physical size and skill of child

Injury Prevention: Coaches are to teach body awareness and teach proper ‘change of direction’ technique.



Learning to Train - Getting Hooked

Males Age 9-12; Females Age 8-11

In this stage attention now focuses on building the athlete's foundation of movement skills and begins to expand the repertoire of hockey basics. Participation in multiple physical activities and sport is still promoted with field hockey-specific activities recommended 2-3 times per week.

This is the most important stage for the development of field hockey-specific skills as it is a period of accelerated learning of coordination and fine motor control. It is also a time when children enjoy practicing skills they learn and seeing their own improvement. It is still too early for specialization in field hockey or at the specific positions. Athletes should continue to engage in a broad range of activities and sports for full athletic development.



This stage will feature the window of trainability for skill development for most athletes. Therefore it is important to provide athletes with sufficient time and repetitions to practice and master basic field hockey skills. For best long-term results 75% of the time in field hockey should be spent in practice, with only 25% of the time spent on competition. Applying the skills learned in practice should be the focus of competition, not winning.

Physical

Greater emphasis is placed on learning sport-specific movement through training. Strength training should consist of use of body weight and stability/medicine balls. Endurance and speed should be trained through fun and games that includes introduction to basic training concepts.

Early information about nutrition and hydration is provided.

A major skill learning window (the skill hungry years) takes place during this stage.

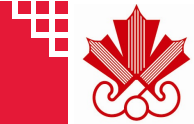
Technical

Developing the skills – continued emphasis on refinement of the Five FunStix Principles of Hockey and the expansion of these starts to occur.

Hockey skill introduction: Reverse stick and one-handed dribbling, eliminating, hitting, flicking, sweeping, open receiving, and poke tackling. All skills to be trained in both stationary and dynamic positions. Participants refine basic hockey skills such as open stick dribbling, using the reverse side of the stick, and pushing.

Goalkeeping: The goalkeeper position is introduced with participants focusing on angles, stopping the ball with their feet and pads, and low clears.

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LEARNING TO TRAIN - GETTING HOOKED

Participants compete in mini and modified games (e.g., 3 vs. 3; 4 vs. 4). Modified implies selecting one or two basic skills to focus on during mini games.

Tactical

Slowly expand from mini games of 3 vs. 3 to 7 vs. 7 with an emphasis on numerical advantage, i.e., 2 vs. 1; 3 vs. 2 and ball possession. Add modified games involving positioning, including a goalkeeper, to introduce basic tactical play, e.g., width and depth, use of space.

Work in a small area with a modified goal and, for example, no “D”. Create awareness of the importance of teamwork and promote constructive communication.

Mental

Concepts of mental preparation begin to be introduced to the athlete. These include relaxation (deep breathing / ratio breathing), long and short term goal-setting, basic focus strategies and thought stopping, imagery (to promote skill development, control, and confidence), self-awareness, basic confidence building-ability to identify strengths, teamwork, and communication skills.

Rules of the Game are expanded and principles of fair play are understood.

Some implications for the coach: Introduce players to a structured mental training (MT) program, introduce the basic mental skills, introduce breathing exercises, and PMR (progressive muscular relaxation)

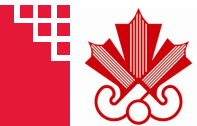
Health

Activities balance one-sided skills with variety of play activities with opposite movement patterns. A period of rapid growth may begin at the end of this stage for early maturers.

Nutrition: Ensure adequate nutrition, but avoid over-eating. Optimize hydration.

Strength and Flexibility: Introduce plyometric activity through common games (hopscotch, jump rope), shoulder and torso exercises, and free weight technique, but no maximal or near-maximal strength activities to preserve growth plates.

Injury Prevention: Balance one-sided skills with variety of play activities with opposite movement patterns and wear properly fitting shoes.



Training to Train - The Fast and the Furious

Males Age 12-16; Females Age 11-15

Training to Train stage begins when the child's major growth spurt begins (onset of Peak Height Velocity [PHV]). On average, PHV occurs at about age 12 for girls and 14 for boys and lasts between 2-5 years. The major focus of this stage is on the consolidation and implementation of the basic skills of field hockey in a competitive arena.



Competition should involve 1-2 matches per week during a season. A season runs over multiple months with proper breaks to allow for rest and recovery. The athletes may play to win and do their best, but they still need to focus more time on skill training and physical development over competition. This approach is critical to the development of top performers and maintaining activity in the long-term. The training to competition ratio shifts to 60:40.

This stage is the most important in terms of developing the physical capacity of the athlete. The second window of trainability for speed occurs at 11-13 for females and 13-16 for males. There are two sensitive periods for strength training for females; the first occurs immediately after PHV and the second begins with the onset of menarche. For males this starts 12-18 months after PHV.

To properly accommodate all the development that should be completed in this stage, an increase in time commitment in the training schedule will be required. Field hockey-specific training should occur three times per week plus other physical activities in and out of school.

Physical

Develop aerobic endurance with the onset of the growth spurt and introduce speed and anaerobic concepts into training towards the end of the stage. This is the second speed window, 11-13 girls and 13-16 boys. Body weight and core stability work should be expanded upon as well as introducing of use of free weights.

Strength training window for females occurs in two stages: the first occurs immediately after PHV and the second begins with the onset of menarche. For males it starts 12-18 months after PHV. Flexibility training is also emphasized. Expanded information is provided to the athlete and injected throughout training in the areas of recovery and regeneration, hydration and nutrition.

Pre- and –post competition physical strategies are developed. Multiple seasons occur with a built in period of rest between seasons to allow for adequate recovery. Single or double periodization takes place.

Technical

Hockey skill introduction: Reverse stick scoop and low hit passing, advanced scoring techniques such as sweeping, chipping, and tipping, slips and high ball receptions, intercepting, stealing, and penalty corner skills. Further development takes place for many passing, receiving, and eliminating skills. Athletes work on the

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TRAINING TO TRAIN - THE FAST AND THE FURIOUS

perfection of the FunStix skills.

Goaltenders develop primary skills while being introduced to sliding, left hand, and high clears.

Coaches test the skills through the use of skills in mini and modified games to build confidence. Strengths and weaknesses are identified and addressed while mental skills (focus, confidence) should be built into games and competitions.

Tactical

Basic team and individual tactics are introduced and developed. Elements such as changing pace or direction, off the ball movement, marking, covering, etc. Increase pressure by limiting space in small games. Suggest interchange from zone to man-to-man marking.

Athletes work on consistency of performance under a variety of situations and recognition of game play and decision-making is fostered.

Emphasis on specific positional skills, eg., goalkeepers, defenders, etc.

Mental

Players learn to cope with challenges of competition through education and integration of basic mental skills. Reinforce fair play and advance teamwork.

Mental capacities: PMR (progressive muscular relaxation), basic focus plans and competition strategies, self-talk – aware of thoughts and have method for replacing unproductive self-dialogue, motivation through more advanced goal-setting, use of SMARTER principle – Specific, Measureable, Achievable, Realistic, Time-based, Evaluated, Recorded, confidence by highlighting strengths, and use of imagery.

Start to use pre-competition planning strategies, improved self-awareness, distraction control strategies, competitive attitude, teamwork and communication skills, and reinforce sportsmanship and fair play.

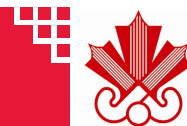
Health

Most participants experience the major growth spurt during this stage. As a result, increased consumption is normal (avg. of 2200 calories for females and 2800 for males). Sufficient balance of nutrient rich foods is important with attention given to calcium, iron, and optimized hydration.

Sleep needs increase with rapid growth

Strength and Flexibility: Introduce free weight technique, but no maximal or near-maximal strength activities to preserve growth plates. Flexibility should be emphasized during the growth spurt.

Injury Prevention: Improved aerobic fitness decreases risk of injury from fatigue and enhances recovery. Introduce injury prevention programs for shoulder and low back because risk of repetitive use injury increases, provide at least 6-8 weeks of preseason conditioning prior to intense sport participation, modify training programs (ie., correct muscle flexibility and strength imbalance, decrease volume and intensity of training/during periods of rapid growth), and ensure that all injuries are fully rehabilitated.



Training to Compete - Tackling the Top

Ages 16-19 +/- yrs

In the Training to Compete stage athletes now have the core skills to strive within a competitive environment. The focus now shifts to consistency in execution of these skills and training under pressure. Athletes begin to specialize in field hockey with sport-specific training sessions 9-12 times per week – including technical, tactical, and physiological components.

The purpose of this stage is to begin to prepare the elite athlete for high performance competition in the clubs, provincial programs, universities, regional centres, and national teams. Many athletes will choose to continue participating in field hockey at a more recreational level thereby entering the Hockey for Life stage. For the high performance athletes, training begins to occur year-round.



The Training to Competition ratio shifts to 40:60 % and competition includes both competition-specific training and actual competitions. Competition should include 1-2 times per week recreationally with two or more times per week focusing on the introduction to elite domestic and international competition within a season of multiple months with adequate periods of rest and recovery in between. Utilize single, double, and triple periodization as the optimal framework of preparation.

Physical

All systems are fully trainable towards the end of the stage. Testing should determine the priorities of training emphases such as aerobic and anaerobic endurance, speed development, strength training, footwork and agility, and positional considerations for fitness and strength training.

Coaches refine routine practices of recovery, regeneration, and nutritional needs. Injury care and prevention are emphasized through a strong core and flexibility program pre-and-post workout / competition.

Technical

Advanced ball and stick skills are performed at speed. This is the critical stage for the development of the High Performance athlete. Specific skills are integrated and high proficiency level for both attacking and defending is expected. Development of consistency under pressure in a variety of situations. Mini-games are important with emphasis on using specific skills with the element of competition.

Athletes have perfected FunStix skills and working on the refinement or perfection of: Lift dribbling, eliminating skills, hitting, flicks, one touch passing, scoops, advanced scoring skills, deflections, steals, shave tackles, and penalty corner skills.

LONG TERM HOCKEY DEVELOPMENT IMPLEMENTATION RESOURCE PAPER



TRAINING TO COMPETE - TACKLING THE TOP

Goaltenders have perfected measuring angles and begin to work towards perfection of feet/pad saves and low clears. Refinement commences on sliding, hand/stick saves, and high clears.

Tactical

Decision-making in game play (eg. focus on ability to read the game) is important in this stage. Athletes focus on the use of space, creating numerical advantage, transition of play in attack and defense, creating or preventing goal scoring opportunities, and defensive and offensive positioning with reference to ball speed and pressure.

Use of press and relevant positioning.

Use and awareness of roles and responsibilities in half court tactical play.

Tactical manoeuvres aimed at very quickly shutting down opposition attacks or counteracting opposition. Not permitting space by close marking. Creating space by off the ball movements.

Individualized specialization of set play pieces and duties on the pitch regardless of position.

Implementing the game plan and dictating the pace of the game.

Mental

Develop competitive attitude and mental skills needed to manage anxiety and perform consistently with an emphasis on personal accountability for performance excellence. Promote on and off-field strategies to maximize teamwork.

Mental capacities: Commitment to training at high intensity, ability to manage activation/arousal level, goal-setting, self-awareness (high level of awareness of factors that maximize and minimize performance), knowledge and use of planning, critical evaluation of training and competition, competitors mindset (confidence, focused, determined), personal responsibility and involvement in decision making, sport-life-balance skills, and on and off-field strategies to maximize teamwork.

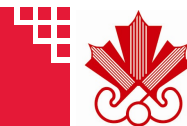
Health

It should be considered that some athletes may gain height until 20-21 years old.

Nutrition: Maintain balance of nutrient rich foods, with attention given to calcium and iron, ensure caloric intake meets needs of activity, and hydration.

Strength and Flexibility: Ensure strength and flexibility meets the requirements of the sport, and continue to decrease muscle strength and flexibility imbalances.

Injury Prevention: Continue specific injury prevention programs to decrease risk of repetitive use injury, including core stability, continue at least 6-8 weeks of preseason conditioning prior to intense sport participation, introduce cross training activities for 2-3 aerobic training sessions per week to decrease overload to any one group of tissues, introduce the concept of Integrated Support Team (IST), and ensure all injuries are fully rehabilitated.



Training to Win - Push to the Podium

Chronological Age: 19 +/- yrs and beyond

Training to Win is the final stage of preparation. Athletes now have a full complement of skills and abilities to achieve success. All facets of training have been developed and are now exercised to maximum capacity. Responsibility now falls on an athlete not only for their own individual performance but that of the team as well. Consistent mastery and execution in all areas of performance must occur.

The athlete's physical, technical, tactical, mental, and ancillary capacities should now be firmly established. The focus of training is on refining all skills and abilities and continuing to zero in on the optimization of performance to peak for major competitions. World-class athletes require world-class training methods, equipment, and facilities that meet the demands of international field hockey.



The competition ratio shifts to 20:80 with the competition percentage including competition-specific training activities. Domestic competition occurs once or twice per week over a multiple month season with built in rest periods while international competition sees multiple games over the week during intense periods followed by rest. The athlete should have total dedication to field hockey with sessions 9-15 times per week incorporating all facets of physical and mental training.

Physical

All systems are fully trainable. Testing determines the priorities of training emphasis such as individual fitness for maintenance and improvement, high level of work rate encouraged along with institution of proper lengths of recovery, commitment to rigorous training, and performance (result) oriented goals.

Technical

Game-related technical repetition under pressure is important for this stage. Players are normally identified for provincial, junior, or senior squad.

This stage is focused on perfection of skills although elements of advanced skills may still be developed such as uses of skills for specific positions or tactical reasons (when, where and how).

Hit, sweep or push pass with reference to distance and pressure.

Specific positional and set play specialization is established and mastered.



Tactical

Athletes have a high degree of decision-making, leadership, and game analysis. They possess advanced use of skills for tactical play such as cross-field scoops to break from a press and also set the stage for a quick attack.

Counter attack by use of good position for absorbing the attack and then launching an attack. Switch off marking and covering, communication with players for changes in tactics and ability to adjust game plan, adapt strategies to suit changing demands. They also understand the correct method of entry into the circle (eg. direct or baseline).

Mental

Competitive attitude and will to win is solidified. Focus on individualized mental strategies used to prepare and perform consistently under a variety of competitive situations. An increased emphasis is on personal responsibility and player involvement in decision-making. Athletes utilize on and off-field strategies to maximize teamwork.

Mental capacities: Individualized mental training program and consistent use and application of mental skills, regular monitoring, evaluating, and adjusting of goals (short and long-term – continue to set both process and outcome goals). There is a high level of awareness of Ideal Performance State, and a competitor's mindset (confidence, focused, determined, goal-driven).

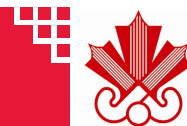
Health

It should be considered that some athletes may gain height until 20-21 years old.

Nutrition: Maintain balance of nutrient rich foods, with attention given to calcium and iron, ensure caloric intake meets needs of activity, and hydration.

Strength and Flexibility: Continue to ensure strength and flexibility meets the requirements of the sport, and continue to decrease muscle strength and flexibility imbalances.

Injury Prevention: Continue specific injury prevention programs to decrease risk of repetitive use injury, including core stability, continue cross training activities including 2-3 aerobic training sessions per week to decrease overload to any one group of tissues, integrate use of Integrated Support Team (IST), and ensure all injuries are fully rehabilitated.



Hockey for Life

Any age

This is a crucial stage to the ongoing success of field hockey in Canada. This stage allows the sport to be played by tens of thousands of recreational athletes across the country. In this stage the passion for the game of hockey continues with emphasis on the leisure and social aspects of the game. By encouraging inclusion, the game can remain a viable option for full participation by all in a fun and inviting participatory environment.

Young athletes can enter this stage at essentially any age. If children have been correctly introduced to activity and sport through Active Start, FunStix, and Learning to Train programs, they will have the necessary motor skills and confidence to remain active for life in field hockey. Not only can an athlete enjoy playing field hockey for a lifetime, but she or he can also become involved in the sport as a coach, official, administrator, or volunteer. These individuals should be encouraged to take up and get involved in new sports as well.



Competition can be as little as once per week and can take place in clubs, university alumni games, community leagues, and relative age-group competitions. Athletes should work to try and maintain the basic field hockey skills learned in their development career.

Physical

Maintain aerobic fitness by walking or jogging at least 3-4 times a week for a minimum of 30 minutes each.

Maintain strength through resistance conditioning exercises.

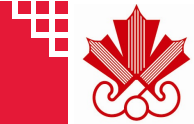
Maintain flexibility – stretching, yoga or pilates.

Technical

Maintaining existing skills and learning new ones. Engaging in new aspects of the game in a non-playing capacity through volunteering of time, e.g., coaching, umpiring and management.

Provide mentorship and development opportunities to young coaches and athletes to enable the development of field hockey and participate in community clubs.

LONG TERM HOCKEY DEVELOPMENT IMPLEMENTATION RESOURCE PAPER



HOCKEY FOR LIFE

Tactical

Exchange varied tactical knowledge for incorporation into game situations.

Provide knowledge, ideas and experience to promote the game.

Incorporate the experience for enjoyment and growth of the sport.

Mental

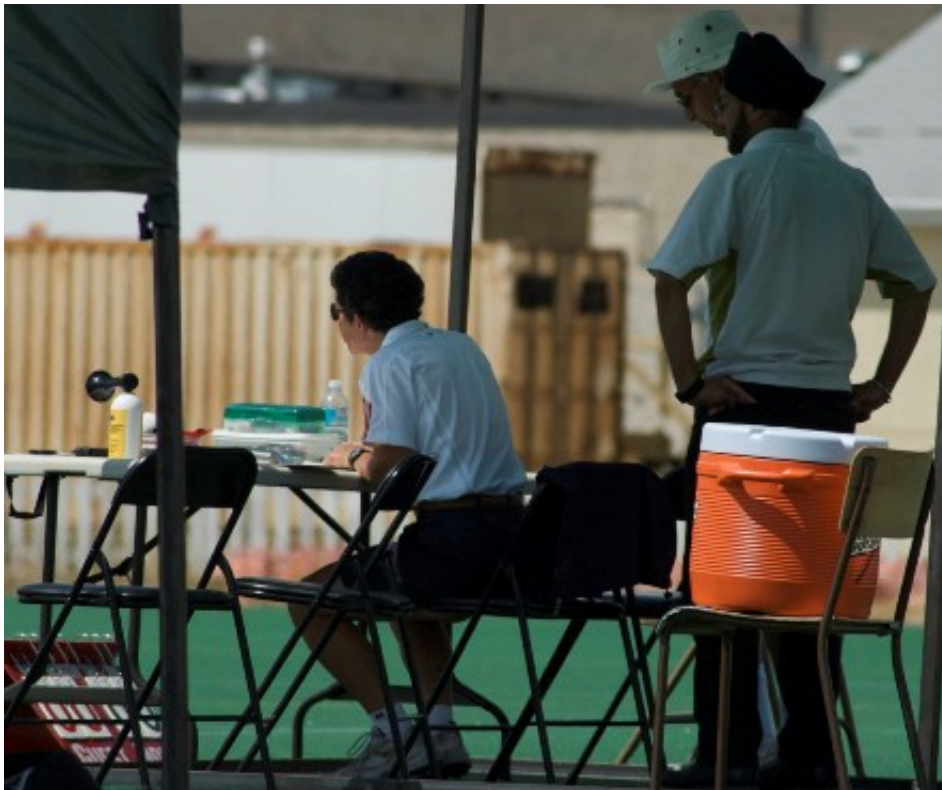
Remain motivated to play and desire to learn and improve skills.

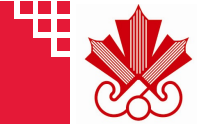
Develop and maintain social contact, but most importantly, HAVE FUN!

Health

Overall maintenance of general health through active lifestyle. Perform at least 30 minutes of activity per day (moderate and vigorous) and return to a variety of activities.

Nutrition: Caloric needs decrease, maintain balanced diet, low in fats, low in salt, high in whole grains and complex carbohydrates, maintain calcium levels, ensure adequate nutrition without avoid over-eating, and continue optimizing hydration.





Para Field Hockey

Athletes with a disability (AWADs) are first and foremost athletes, and for this reason, virtually everything in the able-bodied LTHD model is applicable. The AWAD development stream is, therefore, only concerned with additional factors that need to be considered when working with these athletes.

Para Field Hockey, or field hockey for athletes with a disability, is a newly evolving component within field hockey. The athlete development pathway is based on the Canadian Sport for Life model (No Accidental Champions), which provides development considerations for athletes with a disability.



The game will consist of both an Outdoor Integrated Game and Indoor Para-Game (Para-athlete focused, with reverse integration of able-bodied athletes invited to participate).

Key Considerations

The first element is based on the fundamental principles of awareness and the concepts pertaining to first contact/recruitment.

The second consideration involves the coach being aware of whether the athlete has had previous experience in sport activity, be it a recreational or competitive level, and whether this involvement was from a congenital disability background or if the individual has a newly acquired disability. A great deal of consideration must not be given to chronological age of development, but rather age of experience, relative to the individual's level of activity and experience both pre and post-acquisition of the disability.

The third element that follows from this is the provision of options relative to the individual choosing to pursue a recreation stream or a competition stream within the sport.

These three concepts are the foundation through which Para Field Hockey will develop in Canada, and ultimately will ensure the growth of the para-game within Canada and on the international stage.