



BOWLS A Sport for Life

Long-Term Athlete Development:

**A systematic approach to maximizing
athlete potential and participant
involvement**



BOWLS A Sport for Life



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FOREWORD

***FORTOO LONG we
have played and
ignored practice***

***FORTOO LONG we
have not had long-
term coaching
strategies***

***FORTOO LONG we have
under-achieved
Provincially***

***FORTOO LONG our
Champions have not had
a continuous support
team***

***IT IS TIME to make
CHAMPIONS BY DESIGN
and PARTICIPANTS FOR
LIFE***

Long-Term Athlete Development (LTAD) is a systematic framework encompassing every element of lawn bowls with the athlete/participant as the central focus. LTAD will help British Columbians regularly reach the top of the podium due to the system supporting them.

LTAD gives BC bowlers the ability to identify support structure gaps. It will enable the lawn bowls community to adapt infrastructure and program delivery to provide the best opportunities to those who lawn bowl - whatever their motivation or level of play. The key benefits of LTAD are:

- everyone will see where they fit and what their role is
- coaches will have a guide in the design of practice planning, yearly training plans [YTP] and programs
- every bowler will understand what they need to do
- stakeholders will make decisions that benefit long-term development

Many people share in an athlete's success and enjoyment in lawn bowls and the Bowls BC LTAD framework recognizes **that clubs are central to the long-term development of bowlers.**

The competitive nature of sport implies that only a few bowlers will achieve the level to be in elite programs. However, LTAD provides a solid foundation for all bowlers at all ages and levels, allowing long-term participation, enjoyment and achievement. Let's celebrate the best and cheer on the rest.



What is Long Term Athlete Development?

Long Term Athlete Development (LTAD) is a systematic approach that is developed and adopted by Bowls BC to maximize athlete potential and participant involvement. The LTAD framework aims to define optimal training, competition and recovery based on biological age rather than chronological age. LTAD takes into account early entry and late entry sport participants. It is athlete centered, coach driven and administration, sport science and sponsor supported.

The instruction, coaching and training are tailored to develop an athlete/participant's fundamental physical, literacy and sport technical skills to best position the participant to:

- Reach full potential
- Increase lifelong participation in lawn bowls and other physical activities
- Improving health and well-being

This framework will recommend training sequences and skills developments for the participant from the 'Beginner Bowler' to the 'Elite Bowler' and back to the 'Active for Life Bowler'. It addresses the physical, mental, emotional and technical needs of the athlete as they pass through each stage of development.

Who Else Is Using LTAD?

The Council of Federal, Provincial and Territorial Ministers responsible for Sport have endorsed and established the goal of the implementation of a Long Term Athlete Development program throughout the Canadian sport community. Sport Canada has been working with National Sport Organizations to develop sport-specific programs according to an overall framework established by an expert group of sport scientists.

In Canada, all National sport organizations have started the process of designing and putting into place LTAD programs. There has been a sharing of best practices among resource personnel and National bodies and the overall program is gaining momentum.

Bowls BC has referenced the Bowls Canada Boulingrin LTAD framework to develop its own Province specific context.

Various other bowling nations have embarked on developing LTAD systems and Bowls BC will continue to model our structure and agenda to ensure we create the most comprehensive and effective system possible.

Where Did LTAD Come From?

As a result of the implementation of the 2005 Canadian Sport Policy, Canada began a major project to re-invigorate its national sport system. Under the direction of Sport Canada, the Canadian Sports Centre - Vancouver and Pacific Sport were given the task of transforming the Canadian sport system. The approach was:

- To create a new generic long-term athlete development [LTAD] model for able bodied athletes
- To create a supplement to the LTAD model that addressed the additional needs of athletes with intellectual and/or physical disability.
- To work with individual National Sport Organizations [NSO] to adapt the generic model to meet sport specific needs.



Why Implement LTAD?

There are 10 reasons for implementing an LTAD approach:

1. To establish a clear development pathway for lawn bowlers
2. To identify gaps in the current lawn bowls development pathway
3. To provide solutions
4. To act as a change agent to create proper planning, training, competition and recovery programs for developing Canadian bowlers
5. To create a streamlined efficient system
6. To provide a planning tool, based on scientific research for coaches and administrators
7. To provide awareness, education and action planning for parents and clubs
8. To improve communication within the sport
9. To help athletes achieve their goals
10. To facilitate lifelong enjoyment in lawn bowls

Bowls BC LTAD Model





Lawn bowls is a great sport and has huge potential for participation and international performance. The LTAD framework provides Bowls BC with an opportunity to closely examine our programs to identify inconsistencies with the LTAD key factors and explicitly identify our shortcomings and their related consequences. Most of our shortcomings as a sport can be addressed by developing a comprehensive long-term athlete development model. The following shortcomings are considered the main issues on which Bowls BC will focus:

SHORTCOMING	CONSEQUENCE
<ul style="list-style-type: none"> • A step-by-step program is not consistently taught to guide participants from beginner to international athlete 	<ul style="list-style-type: none"> • Fundamental movement skills like bending, squatting, lunging and arm swing are not performed properly by many bowlers • Remedial programs are needed by coaches to re-teach technical and fundamental movement skills • No systematic development of the next generation of high performance athletes • Bowls BC has not had a coaching framework that supports our NSO coaching program resulting that International performances are inconsistent because of a fragmented approach to athlete and coaching development • The training needs of older athletes are not well understood
<ul style="list-style-type: none"> • Lack of awareness of bowls as a sport 	<ul style="list-style-type: none"> • Athletes are unaware of the opportunities within bowls
<ul style="list-style-type: none"> • Too few active coaches at all levels hinders basic skill development and advanced strategic and tactical play • Too few athletes seek out qualified coaching 	<ul style="list-style-type: none"> • Athletes may not reach their potential due to lack of guidance and support from qualified coaches • Athletes have poor skill development • Athletes are not introduced to a structured practice routine
<ul style="list-style-type: none"> • Too few athletes are recruited to the sport at an early age • Most participants enter bowls later in life 	<ul style="list-style-type: none"> • Critical windows of trainability are missed • Late entry to the sport makes it challenging for bowlers to master the advanced bowling skills
<ul style="list-style-type: none"> • Insufficient time spent on skill development 	<ul style="list-style-type: none"> • Basic skills are performed poorly and thus cannot be performed when required in competition
<ul style="list-style-type: none"> • Players view lawn bowls as a five to eight month season 	<ul style="list-style-type: none"> • Over competing leads to a focus on short-term solutions and under-training leads to poor skill development, compromising long-term player development



Long-Term Athlete Development Program

- Is a five-stage model based on the physical, technical, strategic, mental, emotional and cognitive development of sport participants. The priority of LTAD is Sporting Excellence and the Active for Life stage encourages lifelong physical activity.

This will provide Bowls BC with an opportunity to fully examine a systematic approach to player development using the LTAD key factors to evaluate current athlete development plans and adapt programs to address shortcomings.

- Contributes to and promotes a healthy, physically literate province whose citizens participate in lifelong physical activity.

Currently there is a lack of information in coaching material about exercise and aging populations who are still active or wish to remain in sport. Many of the Bowls BC members are older and appropriate material must be developed for coaches to use when working with older athletes.

- Recognizes best practices in elite sport and what normative data and research tell us about long-term athlete development.

Bowls BC is at the stage where we need to incorporate research and standards into our High Performance Development and Selection Plans. Using a stage-by-stage approach, our organization needs to educate developing athletes regarding the standards and skills required to win on the world stage.

- Recognizes the need to have all British Columbians be physically active, including athletes with a disability.

Lawn bowls is an inclusive sport where people with disabilities are included in all programs. The LTAD process will provide more insights into additional opportunities for athletes with disability.

- Is an inclusive concept that recognizes the importance of athletes, coaches, administrators, sport scientists, clubs, schools and all levels of government.

The Bowls BC Strategic Plan will incorporate many of the LTAD concepts to ensure consistency and inclusion of all of the people and organizations that can make a difference in our sport.



Six Key Factors that Influence Optimal Athlete Development and Ongoing Quality Participation

1. Excellence Takes Time

Thousands of hours of training for an individual are required to become an expert in a sport. These hours include time spent learning fundamental movement and fundamental sport skills in a variety of sports and other activities. Primarily, this is centered on unique but consistent opportunities to practice, train and compete. A lawn bowler could participate in a complimentary sport where the technical skills and physical capacities are similar.

2. The Fundamentals

Participants need to have developed the fundamental movements and motor skills before the onset of adolescence. This means that lawn bowls relies on children and youth developing physical literacy in physical education classes and participation in a variety of sports and recreational activities.

Mastery of the fundamental lawn bowls movements of squat, balance, bend, lunge and arm swing is necessary for elite bowlers. However the reality in lawn bowls is that most athletes/participants take up lawn bowls later in life and as a consequence need to learn, re-learn or improve these fundamental bowling movements.

Lawn bowls is a social game and can be modified for all abilities and disabilities including persons with a sensory, mobility or intellectual disabilities. People with a disability can participate in lawn bowls to develop their fundamental movement, motor and sport skills.

3. Specialization

Lawn bowls is a specialization sport where athletes 18 years of age are as likely as someone who is 50 to be a world champion. Individuals with congenital or acquired disabilities can develop the skills to play the game and/or compete internationally.

While some may want to specialize in lawn bowls, it is complimentary to other target sports such as curling, five or 10-pin bowling. It is a sport that can be enjoyed and played well into the senior years - a true **SPORT FOR LIFE**.

4. Trainability

Lawn bowls attracts participants of all ages, regardless of skill, flexibility, strength, speed or endurance and they can always be trained and improve. Older adults, in particular, benefit from being physically active and through their activity maintain or improve their quality of life and ability to remain independent. For those who wish to improve their lawn bowls play should engage in off-field workouts targeting improved strength, flexibility and aerobic endurance.



5. Physical, Mental, Cognitive, and Emotional Development

A major objective of LTAD is a comprehensive approach to development which includes physical, tactical and technical as well as psychological, social and emotional preparation skills. Every individual enters lawn bowls with his/her own personal and unique attributes. For example, an athlete may be very technically proficient for what is needed to compete on the provincial or national stage. However, psychological abilities may be indicative that the athlete is not ready to compete at that level. Sending an athlete to compete in a high level competition without good skills in distraction control will have negative impact on the overall performance.

Beyond the physical, technical, and tactical development — including decision-making skills — mental, cognitive, and emotional development should be enhanced. Training, competitive and recovery programs should consider the mental, cognitive and emotional development of each athlete.

Programs must evaluate all components to determine areas for development. Programs need to be individual, identifying strengths and weaknesses within each area. This includes emphasis on ethics, fair play and character building throughout the various stages, an objective that reflects Bowls BC values. Programming should be designed considering athletes' cognitive ability to address these concepts.

6. Periodization

Simply put, periodization is *time management*. As a planning technique, it provides the framework for arranging the complex array of training processes into a logical and scientifically-based schedule to bring about optimal improvements in performance.

Periodization sequences the training components into weeks, days and sessions. Periodization is situation-specific, depending upon priorities and the time available to bring about the required training and competition improvement. In the LTAD context, periodization connects the athlete's present stage to the requirements of that stage.

For domestic play within North America, a yearly training cycle would start in February and conclude in the late summer or early fall. For international players, the yearly training cycle would be adjusted to accommodate key international events and would follow a 12-month training cycle.



Learn To Bowl - The Beginner Bowler

The Beginner Bowler would have a six-month outdoor season. The Beginner Bowler would be introduced to the basics of the game: how to choose the correct size of bowl; how to hold the bowl; the muscles involved in the delivery action of a bowl; a simple delivery action; the central concepts of the game; and the etiquette and rudimentary rules of the game. The Beginner Bowler would be introduced to all the social aspects and recreations of the club and shown a clear path of what could be achieved in the sport at a club, provincial, national and international levels of competition. A mentor would be assigned to the Beginner Bowler to ensure that he/she felt welcome and included and was made aware of all the suitable playing events of the club.

General Preparation	Competition	Transition
February – March	April - September	October - January
<ul style="list-style-type: none"> Indoor bowls if available 	<ul style="list-style-type: none"> Club and Novice Inter-club leagues and competitions 	<ul style="list-style-type: none"> Other fitness activities

Learn To Play - The Club Competitor

The Club Competitor has a 6-month outdoor season or a 12-month season if an indoor facility is available. The focus for the athlete would be on skill development at a level in order to more enjoy the game and to competently participate in club, inter-club and district competition events. The training would support the athlete's as a way to enjoy the full range of social and competitive aspects of bowls.

General Preparation	Competition	Transition
February – March	April - September	October - January
<ul style="list-style-type: none"> Indoor bowls if available 	<ul style="list-style-type: none"> Club, Inter-club and District events 	<ul style="list-style-type: none"> Other fitness activities

Learn To Compete - The Provincial Competitor

The Provincial Competitor is focused on competing at district and at provincial championships. The training plan targets one key event around which all training is focused. The training period is now extended from six months to 12 months.

General Preparation	Specific Preparation	Pre-Competition	Competition	Transition
January - March	April - May	May - June	June - August	Sept. - December
<ul style="list-style-type: none"> General fitness, Indoor bowls, general skills 	<ul style="list-style-type: none"> Maintain fitness, bowls strategy, specific bowling skills 	<ul style="list-style-type: none"> Maintain fitness, practice events, game strategy 	<ul style="list-style-type: none"> Provincial championships [if winners - National Championships] 	<ul style="list-style-type: none"> Indoor bowls, other fitness activities



Train To Compete - The National Competitor

National Competitors would train year-round and design their yearly training schedule based on key provincial and national events. The athlete would follow a detailed plan focusing on strategy, tactics and team play. The athlete would use a structured practice routine where all practice scores would be recorded for discussion purposes between athlete and the coach.

General Preparation	Specific Preparation	Pre-Competition	Competition	Competition Phase 2	Transition
Dec - March	April - May	May - June	July - August	August - September	Sept. - Dec.
<ul style="list-style-type: none"> General fitness Indoor bowls, General skills Set goals for playing season 	<ul style="list-style-type: none"> practice specific bowling skills discussions with coach for skill improvement 	<ul style="list-style-type: none"> Maintain practice routines and skill development develop team strategy competitive events 	<ul style="list-style-type: none"> Provincial Championships Maintain fitness, practice events 	<ul style="list-style-type: none"> National Championships, Play international event if selected 	<ul style="list-style-type: none"> Other fitness activities

Train to Excel - The International Podium Competitor

National competitors training and fitness program would be a twelve month program. The athlete would design his/her yearly and multi-year training schedule based on key international events. A player on the Canadian High Performance Team would follow a detailed plan focusing on the World Championships and Commonwealth Games. Athlete preparation requires detailed physical, technical, tactical and psychological preparation to ensure podium performances are by design, not by chance.

General Preparation	Specific Preparation	Competition	Competition Phase 1	Competition Phase 2	Competition Phase 2	Transition
Dec - March	April - May	June - July	July - August	August	September	Sept. - Dec.
<ul style="list-style-type: none"> General fitness Indoor bowls, General skills 	<ul style="list-style-type: none"> Maintain fitness, review bowls strategy, practice specific bowling skills 	<ul style="list-style-type: none"> Maintain fitness, practice events, plan game strategy 	<ul style="list-style-type: none"> Provincial Championships Maintain practice routines and skill development 	<ul style="list-style-type: none"> National Championships, Maintain fitness, practice events 	<ul style="list-style-type: none"> Simulate game situations Play international event if selected 	<ul style="list-style-type: none"> Other fitness activities



Three Important Considerations for Performance

1. Calendar Planning for Competition

Competition at all levels tends to be the focal point for the sport. Everyone enjoys a game and it is well-recognized that competition provides a focal point for the athlete's training. In sport, too much competition can undermine some of the training objectives and hamper the overall development of the athlete. For lawn bowls, the season is often short and athletes are faced with a compacted competition calendar. At each stage of development, there is an optimal ratio of tournaments to practices. The competition structure - [timing in the season and events] - must match the objectives outlined for optimal athlete development. The system of competition makes or breaks athletes!

Optimal competition calendar planning at all stages is critical to athlete development. At certain stages, developing technical skills takes precedence over competition. At later stages, the ability to compete well becomes the focus. In many cases, lawn bowls athletes are focused on winning a game and specific practice for skill development is lower on the priority list. If athletes are constantly playing to win, there is little time to practice technical or tactical skills.

The challenge is to protect the traditions of the sport but not at the expense of the development of the athlete. Bowls BC will undertake a competition review to further analyze optimal competition planning and structure.

2. Alignment and Integration

LTAD provides an opportunity for Bowls BC to examine the whole picture to ensure that our programs are consistent with the outlined stage-by-stage objective for the development of the athlete. For example, the BCB National Coaching Certification Program (NCCP) identifies the knowledge, skills and abilities needed by a coach to work with lawn bowls athletes within various contexts. It is critical that the coaching education and development system is consistent with what athletes need depending on their development.

LTAD has a strong impact on the coaching education curriculum. Developmental readiness will replace ad hoc decision-making about programming preparation. It will include how to prepare a yearly plan and how to teach identified skills based on the LTAD model.

3. Continuous Improvement

The concept of continuous improvement ensures that Bowls BC is aggressively pursuing innovations that will enhance the experience and results of all athletes.

LTAD responds and reacts to new scientific and sport-specific innovations and observations and is subject to continuous research in all its aspects.



Learn to Bowl: The Beginner Bowler

The overall aim of this stage is to instill the love of the game. New participants to lawn bowls can learn and enjoy the game in four hours. By focusing on the basic technical skills and developing a reasonable proficiency, the Beginner Bowler will achieve enough success to stay in the sport. At this point, he or she is a social bowler enjoying social aspects of practicing and playing a game with peers while being active. After demonstrating the basic skills, the bowler will decide which path to take: Bowls for Life or Train to Play.

Technical, Physical, Tactical, Psychological Priorities

- Set goals for achieving better skill levels
- Introduce claw grip and or palm grip if claw grip is not suited.
- Learn stance and foot positioning on the mat
- Introduce bias and delivery of bowl and jack
- Learns and practices jack setting, controlling length, and bowling to the center line
- Introduce and practice the draw shot
- Introduce mat placement
- Learn basic rules, game structure, scoring and etiquette
- Basic tactics are introduced
- Physical preparation is basic stretching and working on general fitness
- Develop a basic understanding of equipment and its selection as well as appropriate attire for performance, comfort and weather
- Basic psychological preparation is encouraged including anxiety control and positive attitude

Athletes with a disability

Bowls BC welcomes people with sensory, mobility or intellectual disabilities. Adaptations are made to the game with the introduction of specialized playing equipment. Accommodations are made for any individual differences to ensure that people can progress at their own pace.

- *Example: Blind bowlers work with sighted guides to determine aim and distance*

Competition

- In-club competitions, leagues and/or modified games

Skill Performance Indicators

These benchmarks are based on practice/training drills with the main emphasis being to develop consistency of the skill.

Skill	Beginning of the Stage	Middle of the Stage	End of the Stage
Controlling the length of the jack	Within 3 metres of desired length 50% of the time	Within 3 metres of desired length 70% of the time	Within 2 metres of desired length 70% of the time
Bowling to the center line	Within 1.5 metres of the center line 55% of the time	Within 1 metre of the center line 50% of the time	Within 50 cm of the center line 70% of the time
Controlling the length of the bowl	Within 3 metres of the jack 50% of the time	Within 2 metres of the jack 50% of the time	Within 1 metre of the jack 50% of the time



Train to Play: The Club Competitor

The main objective of this stage is to encourage the lawn bowls athlete to improve basic skills and begin to learn and use basic tactics during competition. The bowler should be introduced to some physical requirements needed to improve his or her game. While having an enjoyable social experience, it is critical that the athlete needs to focus on learning the identified skills required to progress to the next stage. In order to achieve the performance objectives of the club competitor, more opportunities for practice must be available.

Technical, Physical, Tactical, Psychological Priorities

- Set goals for club competition
- Understands the specific performance of his or her own bowls under different green conditions
- Demonstrates point of aim using reference points
- Develops correct and consistent delivery of the jack
- Is able to introduce variations to mat placement
- Performs shots to the standards outlined for the club competitor
- Introduces a variety of game strategies including position shots, building a head, opposition weakness, matching bowls and assessing risks
- Participates effectively in a variety of game formats
- Gains experience playing different positions
- Develops the ability to deliver to targets
- Refines weight adjustment skills
- Knows rules of game, etiquette, different formats and scoring
- Understands the basic speed of the green and effect on delivery
- Positions mat and jack to take advantage of own team's strengths
- Is introduced to reading the head and shot selection
- Learns and demonstrates team communication skills
- Is introduced to psychological preparation including goal setting and cooperation with team

Competition

- Participates in inter-club tournaments
- May participate in provincial competition

Skill Performance Indicators

These benchmarks are based on practice/training drills with the emphasis to develop consistency of the skills with noted improvement. Each practice exercise should challenge the athlete.

Skill	Beginning of the Stage	Middle of the Stage	End of the Stage
Controlling the length of the jack	Within 2 metres of the desired length 50% of the time	Within 2 metres of the desired length 70% of the time	Within 1 metre 70% of the time and in play
Bowling to the center line	Within 90 cm of the center line 50% of the time	Within 70 cm of the center line 60% of the time	Within 40 cm of the center line 70% of the time
Controlling the length of the bowl	Within 2 metres of the jack 50% of the time	Within 1 metre of the jack 70% of the time	Within 70 cm of the jack 70% of the time



Learn to Compete: The Provincial Bowler

In this stage, the bowler has made a decision to participate in more serious competition. Therefore, skills, tactical elements, physical and mental capacities need to be introduced to optimize performance. The athlete should be exposed to competition and games to learn how to prepare for competition. Practices should focus on priorities that are built into a yearly plan and relate to tactics executed in game situations. Athletes should know and understand BCB's Code of Ethics.

Technical, Physical, Tactical, Psychological Priorities

- Set goals for Provincial competition
- Places mat strategically
- Refine ability to control the length of the jack
- Competently uses a variety of shots
- Develops solid game plans to gain competitive advantage
- Uses tournament strategies to maximize results
- Demonstrates consistency in performance
- Demonstrates ability to change tactics and remain unpredictable to opponents
- Simulates game-like situations in practice
- Demonstrates the ability to adapt to different game types
- Develops weight adjustment skills
- Has strong understanding of rules, etiquette, local practices and code of ethics
- Demonstrates ability to select the bowl based on speed of green

Competition

- Provincial and/or national championships are priority events
- Coaches and bowlers should select appropriate competitive opportunities to practice strategies before, during and after competition

Skill Performance Indicators

These benchmarks are based on practice/training drills with the emphasis to develop consistency of the skills with noted improvement. Each practice exercise should challenge the athlete.

Skill	Beginning of the Stage	Middle of the Stage	End of the Stage
Controlling the length of the jack	Within 1 metre of the desired length 50% of the time	Within 1 metre of the desired length 70% of the time	Within 1 metre of the desired length 80% of the time
Bowling to the center line	Within 65 cm of the center line 50% of the time	Within 65 cm of the center line 70% of the time	Within 35 cm of the center line 70% of the time
Controlling the length of the bowl	Within 1 metre of the desired length 70% of the time	Within 65 cm of the desired length 70% of the time	Within 35 cm of the desired length 70% of the time
Strike the target* with heavier weight	10%	40%	70%

*Target – the target may be the jack, a bowl or a cluster of bowls



Train to Compete: The National Competitor

After moving from the Learn to Compete stage, this athlete is a consistent competitor and can “make the shot” under pressure most of the time. The athlete follows an individualized training, competition and recovery plan in order to progress toward competing at the international level. This athlete continually performs well at provincial championships and consistently places in the top three at national championships. Training involves practicing the advanced technical and tactical aspects of the game.

Technical, Physical, Tactical, Psychological Priorities

- Set goal for National competition
- Improve advanced draw shots
- Perfecting the ability to assess your opponent and prepare an appropriate game plan
- Optimizes/perfects ability to read the head and execute the right tactical shot
- Demonstrates strong skills in reading the green
- Demonstrates good team communication skills
- Demonstrates a full understanding of laws and etiquette
- Continues to advance psychological preparation in anxiety control, focusing and refocusing
- Ensures physical capacities necessary for practice and effective tournament play are optimized including stretching, endurance and other recovery techniques

Competition

- Priority competitions include national championships and select international events
- Participation in international events is important to introduce the developing athletes to the pressures of international travel and competition

Skill Performance Indicators

These benchmarks are based on practice/training drills with the emphasis to develop consistency of the skills with noted improvement. Each practice exercise should challenge the athlete.

Skill	Beginning of the Stage	Middle of the Stage	End of the Stage
Controlling the length of the jack	Within 1 metre of the desired length 75% of the	Within 70 cm of the desired length 85% of the time	Within 70 cm of the desired length 90% of the time
Bowling to the center line	Within 40 cm of the center line 70% of the time	Within 30 cm of the center line 70% of the time	Within 20 cm of the center line 80% of the time
Controlling the length of the bowl	Within 65 cm of the desired length 70% of the time	Within 45 cm of the desired length 70% of the time	Within 25 cm of the desired length 80% of the time
Strike the target with heavier weight	50%	75%	80%



Train to Excel: The International Podium Competitor

The International Competitor prepares to maximize all skills and capacities to peak for podium performance at predetermined international events. This athlete is committed to producing consistent performances on demand. The athlete can read the green, adapt to other challenging conditions and make the shot.

Competition preparation at this level requires more attention to detail than in the previous stage. Multi-sport games like the Commonwealth Games are considerably more complex with additional pressures that are absent from other international competitions. In multi-sport games, there is additional media attention that may intensify the pressures on the athlete. Therefore, athlete preparation requires detailed physical and psychological preparation.

The athlete preparation also considers the effects of intercontinental travel, travel delays, food differences, hydration, inoculations and emergency sickness.

Competition routines and mental preparation must be practiced in advance of the priority tournament to be able to produce the ideal performance state.

The athlete and all support personnel must be engaged in creating a training, competition and recovery program that addresses the performance gaps. An integrated support team should be identified to ensure that a high level of expertise is used to optimize all aspects of preparation. This stage is integrated with our High Performance Team Program and is overseen by Bowls Canada Boulingrin High Performance Committee.

Technical, Physical, Tactical, Psychological Priorities

- Set goal for International competition
- All technical skills have been mastered
- The focus is now on accuracy and consistency on demand
- Optimizes and perfects the application of strategies and tactics in a game situation
- Knows rules and etiquette used in international tournaments
- Exploits tactics to own advantage
- Continues to improve physical fitness for game/tournament
- Follows an annual training plan that includes peaking for identified major events in the international calendar
- Demonstrates responsible and pro-active behaviour for travel and competition
- Uses video to analyze and record technical skill and game strategy
- Perfects mental training and maximizes distraction control in national and international tournaments
- Players debrief all practices and games to ensure lessons are learned and effective measures taken
- Players track skill performance regularly



Train to Excel: The International Podium Performer contd.

Competition

- Priority events include the Commonwealth Games, World Championships, Asia Pacific Championships, Atlantic Championships and for AWAD events such as Blind Bowls World Championships and Deaf World Bowls Championships.
- Opportunities for appropriate international tournaments with teams from other countries which include bilateral test matches.

Skill Performance Indicators

These benchmarks are based on practice/training drills. The International athlete should plan his/her training/practice sessions with a coach. These sessions would be based on the established competitive goals set out at the beginning of the competitive playing season. Each practice exercise should challenge the athlete.

Skill	Beginning of the Stage	Middle of the Stage	End of the Stage
Controlling the length of the jack	Within 65 cm of the desired length 80% of the time	Within 55 cm of the desired length 90% of the time	Within 45 cm of the desired length 90% of the time
Bowling to the center line	Within 30 cm of the center line 80% of the time	Within 20 cm of the center line 80% of the time	Within 15 cm of the center line 90% of the time
Controlling the length of the bowl	Within 70 cm of the desired length 80% of the time	Within 50 cm of the desired length 85% of the time	Within 25 cm of the desired length 90% of the time
Strike the target with heavier weight	70%	85%	90%



Bowling For Life: A Sport for Life

After learning the basic bowls skills in the “Learn to Bowl: Beginner Bowler Stage,” the athlete can choose to pursue lawn bowls as a highly recreational and social activity or can continue to progress to higher level tournaments and leagues. This long-term approach to athlete development promotes personal success in lawn bowls to ensure athletes remain happy and enthusiastic about the game. The Bowls for Life stage is open to all ages inclusive of all abilities and disabilities. Youth or adults can participate in this less competitive context, participating in local or district intra- or inter-club play at a less intense level. The main objectives are lifelong wellness, social interaction and fitness by participating in lawn bowls in a fun and social environment.

There are many life stresses that may interfere with the athlete’s ability to get to the club regularly. Therefore programs should be adaptable to accommodate individual athletes. Modifications of the game such as carpet bowling, short mat bowling and indoor bowling provide opportunities to participate throughout the year.

Age appropriate physical training in the 'Bowls for Life' stage is critical as older athletes are looking for fun opportunities for overall wellness. This should include flexibility, adaptable strength training, and exercises for balance and coordination.

Technical, Physical, Tactical, Psychological Priorities

Various skills within these areas will depend on the athlete and the stage that athlete entered the Bowls for Life stage. Within this stage, the participant may become motivated to learn more skills, understand and play the game better. For the most part, the priorities will be driven by the motivation of the individual athlete.

Competition

The type of competition will depend on the priorities and motivation of the athlete. For many, this will be social interaction while maintaining an active recreation. Tournaments and games could include interclub lawn bowls, vacation bowling, inter-club socials and mechanisms to allow for people with disabilities to lawn bowl.



Recommendations for Implementation of Canadian Sport for Life and Long Term Athlete Development for Bowls BC

Bowls BC will need to take a strong leadership role to communicate with and educate its membership about the Provincial Sport for Life philosophy and LTAD model.

1. Bowls BC need strategic plans to address the development and implementation of programs that tackle the shortcomings and stage-by-stage objectives. This will require communication, cooperation and collaboration among the members.
2. A coherent athlete development pathway that leads to strong, consistent international performances will need to be developed and implemented whereby stage-by-stage performance indicators become a strong part of the focus at all stages.
3. More emphasis must be placed on coaching, particularly addressing the technical and tactical aspects of the game.
4. Many of the athletes in lawn bowls are older adults. Developmentally appropriate training programs for these athletes must be developed. This should include the maintenance of capacities such as strength, flexibility, balance and coordination.
5. Bowls BC should continue to promote and improve program opportunities for athletes with a disability.
6. Bowls BC must review the competition calendar to ensure athletes have opportunities for developmentally appropriate tournaments both for enjoyment as well as to prepare for high level competition on the international stage.



Bowls BC Athlete Development Matrix

The Athlete Development Matrix is the basis for Bowls BC's new athlete development model. It provides specific guidance on how to develop each performance factor at every stage of development. It also includes specific benchmarks and standards to aim for each of those performance factors at every stage of development. These benchmarks are based on practice/training drills.

The Matrix will change the mind set for coaches and they should now plan practices with LTAD in mind. There will be consistency in implementation as we move forward and the implementation expectations will be the same across the province.

TECHNICAL SKILLS MATRIX						
STAGE ➡	BEGINNER BOWLER	TRAIN TO PLAY	LEARN TO COMPETE	TRAIN TO COMPETE	TRAIN TO EXCEL	BOWLS FOR LIFE
Grip: claw or palm	Preferred grip is claw; adapt to palm grip if claw is not feasible					Preferred grip is claw; adapt to palm grip if claw is not feasible
Stance: basic position on the mat	One foot must partially on the mat		Learn to use different foot positions on the mat to achieve different lines to the target			One foot must partially on the mat
Bias	Learn to identify bias & which direction bowl will turn	Know specific performance of your own bowls				Learn to identify bias & which direction bowl will turn
Delivery technique: bowl and jack	Point of aim; mechanics of movement; pendulum swing	Develop consistent and correct delivery				Point of aim; mechanics of movement; pendulum swing
Mat placement	Front of mat minimum of 2 metres from ditch and centered	Introduce variations	Vary placement for strategic purposes			Front of mat minimum of 2 metres from ditch and centered
Jack setting	Hand signals for centering					Hand signals for centering
Controlling length of bowl	Within 1.5 metre of the jack 50% of the time	Within 75 cm of the jack 70% of the time	Within 60 cm of the jack 70% of the time	Within 30 cm of the jack 80% of the time	Within 20 cm of the jack 80% of the time	Within 1 metre of the jack 50% of the time
Controlling the length of the jack	Within 2 metres of desired length 70% of the time	Within 1 metre of desired length 70% of the time	Within 1 metre of desired length 80% of the time	Within 70 cm of desired length 90% of the time	Within 45 cm of desired length 90% of the time	Within 2 metres of desired length 70% of the time
Bowling to center line	Within 75 cm 70% of the time	Within 60 cm 70% of the time	Within 35 cm 70% of the time	Within 15 cm 80% of the time	Within 15 cm 90% of the time	Within 75 cm 70% of the time

TECHNICAL SKILLS MATRIX						
STAGE ➡	BEGINNER BOWLER	TRAIN TO PLAY	LEARN TO COMPETE	TRAIN TO COMPETE	TRAIN TO EXCEL	BOWLS FOR LIFE
Shots	Draw	Refine draw shots	Draw, wick, yard-on, resting, raise, running, trail, drive, cantering the bowl	Improve skills with advanced draw shots [boundary jack, drawing to ditch, block, wick, combinations]	Perfect shots for consistency and accuracy	Improve skills with advanced draw shots [boundary jack, drawing to ditch, block, wick, combinations]
Learn appropriate strategies		Position, building the head, opposition weaknesses, matching bowls, taking chances, scenarios, variety of game formats	Game plan, scouting	Refine	Optimize	Position, building the head, opposition weaknesses, matching bowls, taking chances, scenarios, variety of game formats
Learn strategy gathering		Watch experienced players and try to guess next shot; ask players about their strategy; expand knowledge of bowling	➡			Watch experienced players and try to guess next shot; ask players about their strategy; expand knowledge of bowling
Tournament strategies			Percentage shots; winning the toss; watch opponent's bowls; find a side/ hand and stick with it; exploit opposition weaknesses; be consistent but not predictable; track or scout opponents.	➡		Percentage shots; winning the toss; watch opponent's bowls; find a side/ hand and stick with it; exploit opposition weaknesses; be consistent but not predictable; track or scout opponents
Play different positions		Learn to adapt to changes inherent in playing different positions on a team.	➡			Learn to adapt to changes inherent in playing different positions on a team
Practice game-like situations			Conditional singles; phantom 4s; freeze the head; weight adjustment; piggy-in-the-middle; mental practices.	➡		
Target drills		Practice delivering to targets.	➡			Practice delivering to targets.
Learn different games types			Adapt to different games types, i.e. set play; 2-bowl triples; 3-bowl pairs; short-mat or carpet bowls	➡		Adapt to different games types, i.e. set play; 2-bowl triples; 3-bowl pairs; short-mat or carpet bowls
Weight adjustment	Introduce weight adjustment for shot-making	Refine weight adjustment skills	Perfect weight adjustment skills	➡		Introduce weight adjustment for shot-making

KNOWLEDGE, RULES & ETHICS						
STAGE	BEGINNER BOWLER	TRAIN TO PLAY	LEARN TO COMPETE	TRAIN TO COMPETE	TRAIN TO EXCEL	BOWLS FOR LIFE
Laws of the Game	Basic rules such as mat possession, touchers, live/dead bowls & jacks	Basic understanding of the Laws of the Game	Proper application of the Laws	→	Know the Conditions of Play for every event	Basic understanding of the Laws of the Game
Basic game etiquette	Where to stand; minimal talking when near a bowler who is about to play a bowl; safe placement of bowls behind the mat.	Understanding game etiquette	Understanding local club practices	Communication with opponent	Know the local and club customs	Understanding game etiquette
Hand signals		For bowls; for score	→	Team signals	→	For bowls; for score
Measuring		How. Who. When.	→		→	How. Who. When.
Structure of game	Competition; number of bowls per player; begin play; order of play; end of play; duties of players; shot scored; tie shot; and, different game types.	Basic understanding of various formats of play.	Understanding tactics and skills for end and sets play.	→		Competition; number of bowls per player; begin play; order of play; end of play; duties of players; shot scored; tie shot; and, different game types.
Code of Ethics	Basic understanding of Code of Ethics i.e. sportsmanship; recognizing and respecting Laws of the Game		Solid understanding of Code of Ethics	Full understanding of Laws and Ethics	→	Solid understanding of Code of Ethics
Scoring	Understanding scoring	How to do the scoring and who does the scoring	→		→	How to do the scoring and who does the scoring
Speed of green		Basic concept of speed of green and how it affects your delivery and the movement of the bowl	Knowledge of green and how speed affects bowl selection; how to determine speed of green.	Know speed of green and select appropriate bowls	→	Basic concept of speed of green and how it affects your delivery and the movement of the bowl
Conditions of Play		Know rules of local tournaments	Know rules of all tournaments entered	→		Know rules of local tournaments
Dress code	Appropriate bowls clothes as determined by game officials	Know dress code of all tournaments/competitions entered	Team dress code and team uniform [if applicable]	→		Know dress code of all tournaments/competitions entered
Doping control			Introduction to Doping Control Regulations & Therapeutic Use Exemptions	Knowledge of Doping Control Regulations & Therapeutic Use Exemptions	→	

STRATEGY & TACTICS						
STAGE →	BEGINNER BOWLER	TRAIN TO PLAY	LEARN TO COMPETE	TRAIN TO COMPETE	TRAIN TO EXCEL	BOWLS FOR LIFE
Closest to the jack	Goal is to end up closest to the jack					
Mat placement		Position mat to play to your strength or your team's strength or the opponent's weakness				Position mat to play to your strength or your team's strength or the opponent's weakness
Jack length		Position jack to play to your strength or your team's strength or the opponent's weakness				Position jack to play to your strength or your team's strength or the opponent's weakness
Reading the head & choice of shots		Learn how to read the head; introduce tactical shot-making	Refine	Optimize	Maximize	Learn how to read the head; introduce tactical shot-making
Game strategy			Have a general game plan; adjust to your strengths & opponent's weaknesses; have an end by end strategy			Have a general game plan; adjust to your strengths & opponent's weaknesses; have an end by end strategy
Competitive scoring objectives			Win the point; win the end; win the game. Know when to lose the end & to cut the opponent's score down.			Win the point; win the end; win the game. Know when to lose the end and to cut the opponent's score down.
Basic playing strategies			Get second shot in the head; match a cluster of opponent's bowls; refrain from over-building a head; back bowls are better early in the end.			Get second shot in the head; match a cluster of opponent's bowls; refrain from over-building a head; back bowls are better early in the end.
Placement of mat and jack			Know when to change mat placement or jack length in order to play to a strength or attack a weakness			Know when to change mat placement or jack length in order to play to a strength or attack a weakness
Game plan [planning to win]				Implement different strategies for team & singles play or for game variations, i.e. sets play; 2-bowl triples; 3-bowl pairs		Implement different strategies for team & singles play or for game variations, i.e. sets play; 2-bowl triples; 3-bowl pairs
Assess competition				Track your opponent's play & select game strategies accordingly		Track your opponent's play & select game strategies accordingly

PHYSICAL PREPARATION						
STAGE	BEGINNER BOWLER	TRAIN TO PLAY	LEARN TO COMPETE	TRAIN TO COMPETE	TRAIN TO EXCEL	BOWLS FOR LIFE
Game preparation	General fitness level; basic stretching; current and/or potential injuries; emergency situations; warm-ups & cool downs; pre and post-game stretching					General fitness level; basic stretching; current and/or potential injuries; emergency situations; warm-ups & cool downs; pre and post-game stretching
Exercises	Mobility & flexibility exercises; tubing exercises					Mobility & flexibility exercises; tubing exercises
Prevention & cure of injuries	Basic understanding of how to prevent injuries & how to care for them should they happen					Basic understanding of how to prevent injuries & how to care for them should they happen
Physical fitness			Develop & maintain core strength to provide endurance, flexibility			Maintain core strength to provide endurance and flexibility
Nutrition and hydration	Basic understanding of nutritional and hydration needs		Understand and plan for nutritional & hydration needs; pre, during and post-game			Understand and plan for nutritional & hydration needs; pre, during and post-game
Body weight management	Basic understanding		Understand how weight management provides more endurance			Understand how weight management provides more endurance

ANCILLARY						
STAGE →	BEGINNER BOWLER	TRAIN TO PLAY	LEARN TO COMPETE	TRAIN TO COMPETE	TRAIN TO EXCEL	BOWLS FOR LIFE
Effective Communication		Learn effective team communication skills	Refine team communication skills	→	→	Practice effective team communication skills
Game situation drills			Do case studies on various game situations & scenarios and practice drills to refine appropriate skills	→	→	
Media expectations				Learn how to deal with media	→	
Travel emergencies				Make back-up plans for travel emergencies	→	
Visas, passports				Have all necessary documentation available for travel to competition site	→	
Immunization				Have all the necessary immunization shots completed at appropriate times	→	
Video set up			Use video equipment to improve technical skills and game strategy	→	→	
Environmental issues		Deal with weather conditions i.e. heat; humidity; rain; thunderstorms		Deal with pollution	→	Deal with weather conditions i.e. heat; humidity; rain; thunderstorms

EQUIPMENT FACILITY						
STAGE	BEGINNER BOWLER	TRAIN TO PLAY	LEARN TO COMPETE	TRAIN TO COMPETE	TRAIN TO EXCEL	BOWLS FOR LIFE
Selecting bowls	Determine correct size of bowls to use after discussion with coach	Introduce concept of selecting bowls to match turf conditions	Ensure your bowls are accurate for playing conditions, i.e. turf, weather			Ensure your bowls are accurate for playing conditions, i.e. turf, weather
Measuring equipment		Measure[s], small calipers, wedges				Measure[s], small calipers, wedges
Flat soled shoes or sandals	Flat soled shoes or sandals in accordance with Laws of the Game					Flat soled shoes or sandals in accordance with Laws of the Game
Towel or chamois	Have towel and/or chamois to clean and/or dry bowls					Have towel and/or chamois to clean and/or dry bowls
Club equipment	Mats, rakes, pushers, jacks, scoreboards					Mats, rakes, pushers, jacks, scoreboards
Clothing	Comfortable lawn bowls clothing appropriate for the event					Comfortable lawn bowls clothing appropriate for the event
Equipment checklist			Make a checklist for all equipment and ensure that it is all readily available			Make a checklist for all equipment and ensure that it is all readily available
Sun exposure	Sun glasses, sun screen, hat, protective clothing, water bottle					Sun glasses, sun screen, hat, protective clothing, water bottle
First aid	Insect repellent, "After-bite", band aids, ligament, tensor bandage					Insect repellent, "After-bite", band aids, ligament, tensor bandage

COMPETITION						
STAGE →	BEGINNER BOWLER	TRAIN TO PLAY	LEARN TO COMPETE	TRAIN TO COMPETE	TRAIN TO EXCEL	BOWLS FOR LIFE
Modified games & in-club tournaments	Variety of fun games to practice skills, i.e. follow the jack; cutthroat, yardstick; 4/3/2/1					Variety of fun games to practice skills, i.e. follow the jack; cutthroat, yardstick; 4/3/2/1
Competitive bowls games	Club tournaments and novice competitions	Inter-club tournaments	Participate in district, provincial and national championships	National to international competitions, e.g. select international competitions	International competitions with the expectation of winning	Social interaction, vacation bowling, mechanism to allow for disabled bowls, inter-club socials, game adjustments [Australian pairs, point games, mixed triples, etc.]

SPORT PSYCHOLOGY						
STAGE →	BEGINNER BOWLER	TRAIN TO PLAY	LEARN TO COMPETE	TRAIN TO COMPETE	TRAIN TO EXCEL	BOWLS FOR LIFE
Goal-setting	Set goal of mastering basic knowledge and techniques	Master more knowledge & refine techniques	Initiate year-round training & an action plan			Master more knowledge & refine techniques
Anxiety control	Deal with & overcome anxiety of a new sport		Dealing with anxiety of competitions	Determine anxiety control methods		Dealing with anxiety of competitions
Encouragement	Emphasize that game is positive & fun; skill development is the goal					Emphasize that game is positive & fun; skill development is the goal
Visualization	Introduce visualization of where bowl should finish	Continue to develop visualization skills			Visualize success at tournaments	Continue to develop visualization skills
Positive attitude	Everything will not go correctly at beginning	Learn how to handle defeat and victory	Maintain a fresh outlook toward game & competition			Maintain a fresh outlook toward game & competition
Focus	Re-focus on fundamentals after a bad shot		Refine all aspects of focus and concentration	Maintain focus and re-focusing		Refine all aspects of focus and concentration
Routine		Establish a pre-game & in-game routine				Establish a pre-game & in-game routine
Team dynamics		Learn to bowl well and co-operate with team members	Develop skills to correct issues that affect team dynamics			Develop skills to correct issues that affect team dynamics
Gamesmanship			Learn how to deal with gamesmanship			Learn how to deal with gamesmanship
Analysis			Analyze performance in games & in practice	Extend analysis to team level		Analyze performance in games & in practice
Game preparation			Introduce team meetings	Develop team mtgs. to include coaches, team mgrs. psychologist		
Seasonal training program			Plan practices and tournaments to peak for major events in calendar			
Personal conflicts			Learn how to deal with "life conflicts", i.e. job, time, education, family			Learn how to deal with "life conflicts", i.e. job, time, education, family
Dealing with the unexpected			Maintain positive attitude when frustrating events occur			Maintain positive attitude when frustrating events occur
Psychological development					Develop strategies for mental strength	

REST & RECOVERY						
STAGE →	BEGINNER BOWLER	TRAIN TO PLAY	LEARN TO COMPETE	TRAIN TO COMPETE	TRAIN TO EXCEL	BOWLS FOR LIFE
Stretching exercises	Do stretching exercises pre and post-game					Do stretching exercises pre and post-game
Multi-game and multi-day tournaments			Plan for rest and recovery time between games and game days			Plan for rest and recovery time between games and game days
Travel			Plan for travel time and rest before games			Plan for travel time and rest before games
Diet and fitness		Maintain good dietary & fitness habits throughout the playing season	Observe good dietary and fitness habits while in tournaments & competitions to maintain strength and endurance	Add mineral and vitamin supplements if travel diet is inadequate	Observe caution with local foods and water when away in a foreign country	Maintain good dietary & fitness habits throughout the playing season

DISABILITIES						
STAGE →	BEGINNER BOWLER	TRAIN TO PLAY	LEARN TO COMPETE	TRAIN TO COMPETE	TRAIN TO EXCEL	BOWLS FOR LIFE
Equipment	Assistive devices i.e. bowls arm; bowls lifter; ramps for wheel chairs; string/ distance markers for visually impaired bowlers					Assistive devices i.e. bowls arm; bowls lifter; ramps for wheel chairs; string/ distance markers for visually impaired bowlers
Delivery technique	Adapt to individual needs					Adapt to individual needs



ACKNOWLEDGEMENT

Bowls BC Board of Management would like to thank Bowls Canada Boulingrin for their permission to use their LTAD model as a base for the production of the Bowls BC LTAD.

Bowls BC will incorporate the philosophy contained in their LTAD into all their future coaches training and from this training, the LTAD model will be the basic instrument for all player development.