

TRAJECTORY



LONG-TERM PLAYER DEVELOPMENT GUIDE



Version 2.0 • 2014 • Developed in partnership with the PGA of Canada



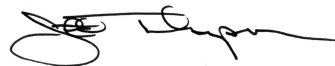
PLAYER DEVELOPMENT IS A JOURNEY.

While knowing the path to reach any destination is critical, so too is understanding what the important factors needed to be achieved at each stage of development in order to get to your destination. In golf, as with every sport, the path of an athlete along the stages in their development leaves a measure of progression that can be studied.

As a follow up to the original guide launched in 2006, Golf Canada in partnership with the PGA of Canada, are pleased to present: Long-Term Player Development (LTPD) Guide—version 2.0. This marks the second iteration of the important blueprint which provides research, statistics and insight into Canada's player development pathway. Included are findings and adjustments that have evolved within the sport of golf since the last version of the *LTPD* Guide was launched. *LTPD* is an extension of our goal to place Canada among the top golfing nations in the world.

Regardless of the sport, depth of participants is critical to high performance success. More participants in every development stage of a sport's pipeline can have a direct correlation to results among those competitors whose trajectory hits the pinnacle of the sport. In developing *LTPD*, we have incorporated best practices and the latest scientific research from within our sport, both in Canada and worldwide. We have also sought the expertise from other successful sports where transfer of knowledge was relevant and insightful. We believe this guide will play a key influencing role in achieving international success for our players while also assisting our goal of fostering a life-long engagement in the sport of golf by Canadian enthusiasts from coast to coast.

In addition to providing a solid sport development framework, *LTPD* clearly outlines the roles and responsibilities of every stakeholder involved in the sport including coaches, instructors, golfers, parents of golfers, facility owners and golf administrators. The goal is to create a player development blueprint to success that will serve Canadian golf for years to come.



Jeff Thompson
Chief Sports Officer
Golf Canada

To learn more about the PGA of Canada, visit pgaofcanada.com

To learn more about Golf Canada, visit golfcanada.ca



• J E C • T O • R Y

noun

I: the curved path along which something moves through the air or through space

II: a path, progression, or line of development resembling a physical trajectory



LONG-TERM PLAYER DEVELOPMENT GUIDE



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PLAYER DEVELOPMENT — THE CIRCLE OF SUPPORT

The primary audience for *LTPD* is focused towards coaches and instructors. While the coaching and instruction stream is critical to player development, so too is identifying how the four primary stakeholder groups (instructors/coaches; facility owners/operators; parents; and athletes/players) will benefit most from this guide.

INSTRUCTORS AND COACHES:

A highly skilled athlete will have a difficult time maximizing his or her potential without the assistance of experienced, trained and certified instructors and coaches. These professionals understand all facets of the game and have developed their own unique teaching methods. For instructors and coaches, this document should act as a guide and an educational reference tool as participants progress through stages of development.

By reading this document, instructors and coaches will further understand:

- The recommended pathway to develop athletes at all levels, including high performance players.
- The framework put forth by the PGA of Canada and National Coaching Certification Program (NCCP).
- Where each type of instructor or coach fits into the educational framework of golf in Canada.

PARENTS:

Parents are the primary source of encouraging enjoyment, confidence and physical activity—especially in the earlier stages of player development. *LTPD* will help parents understand the challenges of physical literacy and how best to promote a healthy and active lifestyle. In the later stages, parents can use the document as a guideline to understand where their child is at competitively and also what could happen next.

By reading this document, parents will further understand:

- The differences between the stages of emotional, physical and mental development.
- The requirements for suggested methods of helping children learn to grow in all facets of their development—physical, emotionally, cognitively and socially.
- How to help teach their child to choose the pathway best suiting their abilities, needs and aspirations.
- How to support the direction and pathway chosen by the child.

FACILITY OWNERS AND OPERATORS:

Canadian golf facilities and community centres are often the place where children first learn to develop golf skills. With such a large outreach, these facilities play very important roles in the implementation of activities covered in *LTPD*.

By reading this document, facility owners and operators will further understand:

- The need for facilities to implement programs fitting within the *LTPD* umbrella.
- The benefits of facilities aligning with neighbouring clubs, schools, etc. in their community.
- How to educate interested parties, such as parents and staff on the player development benefits and goals covered in *LTPD*.

ATHLETES AND PLAYERS:

Athletes and players will benefit by understanding the big picture behind *LTPD* and what the document aims to achieve. Regardless of skill level, all athletes fall into the grand scheme of creating champions for life.

By reading this document, athletes and players will further understand:

- The player development pathways made available to pursue the sport.
- How to mentally and physically prepare for the challenges, failures and successes of competition.
- The suggested benchmarks for measuring success against his/her peers.

KEY FACTORS INFLUENCING LONG-TERM PLAYER DEVELOPMENT

1 PHYSICAL LITERACY

Physical literacy is key to both the enjoyment of participating in sport and serves as requisite as we develop participants through the various stages of development. The development of physical literacy (much like establishing a base level of reading, writing and arithmetic in school) should be a major focus prior to the adolescent growth spurt. The process of becoming physically literate is influenced by an individual's age, maturation and capacity.

Typically, individuals who are physically literate demonstrate a wide variety of basic fundamental movement skills, and fundamental sport skills. In addition, these individuals move with poise, confidence, competence, and creativity in different physical environments. Individuals who are physically literate are also more likely to be active for life as they have developed a sense of confidence through his/her development.

Golf relevance: a basic physical literacy aids in the learning, accomplishment and longevity of the specific actions required by the game of golf.



2 SPECIALIZATION

Sports are often categorized as either *early* or *late* specialization activities. Typically, early specialization sports include artistic and acrobatic sports such as gymnastics, diving and figure skating, particularly for female participants. A possible rationale is that these activities involve very

complex skills learned at a young age due to a much greater difficulty in mastering those skills if taught after a significant level of maturation. Negative aspects of early specialization include one-sided sport-specific preparation; a lack of fundamental movement and sport skills; a high incidence of overuse injuries; and an early retirement from training and competition.

In contrast, most other sports are late specialization which benefit from a solid physical literacy and, at times, an early engagement in the activity (i.e. an introduction to the eventual targeted activity).

Golf relevance: Golf falls into a late specialization category where experience of similar actions (swinging a bat, stick, racquet) and/or an early engagement (but not specialization) assists in eventual mastery.



3 DEVELOPMENTAL AGE

Children of the same *chronological age* can differ by several years in his/her level of biological maturation. Growth, development and rate of maturation result from a complex interaction of genes, hormones, nutrients and the environment in which an individual lives. These interactions are particularly evident over the first two decades of life as an infant evolves into a young adult.

Growth vs. Maturation vs. Development

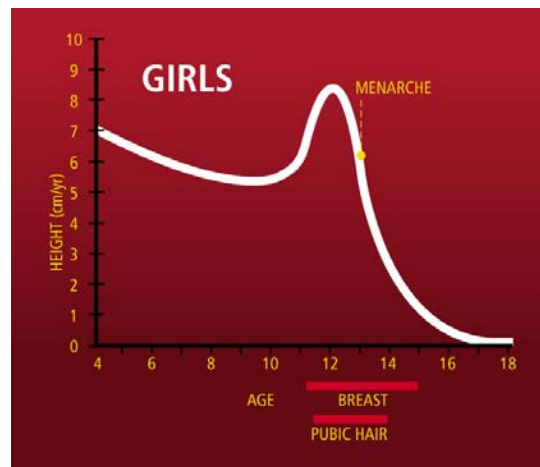
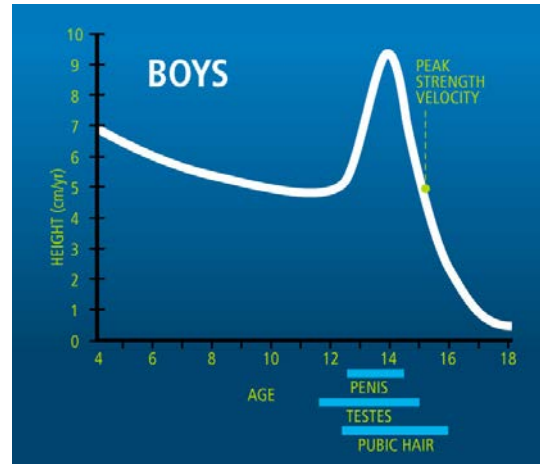
The terms *growth* and *maturation* are often used together and sometimes synonymously, however, each has a distinct meaning:

Growth: the observable step-by-step changes in quantity and measurable changes in body size such as height, weight and fat percentage.

Maturation: the qualitative system changes, both structural and functional, in the body's progress towards maturity such as the change of cartilage to bone in the skeleton.

Development: in contrast to the previous terms, development refers to both biological and behavioral contexts; including aspects such as cell specialization and how the youngster adjusts to his/her cultural milieu (i.e. develops beliefs and values).

The tempo of a child's growth has significant implications for athletic training because children who mature at an early age have a major advantage during the *Learn to Compete* stage compared to those of average or late maturation. After all athletes have gone through his/her growth spurt, however, it is often those who mature late who have the greater potential to become top athletes provided he/she experience quality coaching throughout that period.



Golf relevance: *Long-Term Player Development requires the identification of early, average and late maturation in order to design appropriate instruction, coaching and competition programs in relation to optimal trainability and readiness. The beginning of the growth spurt, as well as the peak of the growth spurt (Peak Height Velocity; PHV), are critical landmarks for LTPD applications concerning training and competition design (see appendix 5 for additional information on how PHV diagrams relate to coaching).*

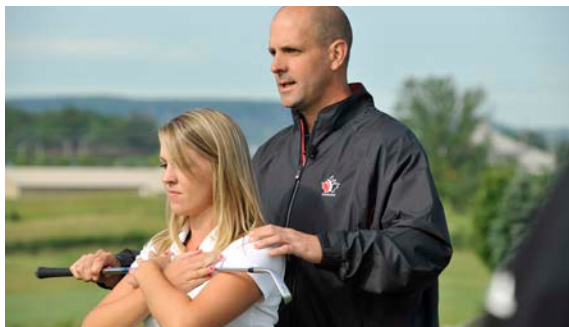


4 SENSITIVE PERIODS

A sensitive period is a broad time frame or *window* when the learning of a specific skill, or the development of a specific physical/cognitive capacity is particularly effective. The entire period of childhood can be viewed as a sensitive period for mastering fundamental movement skills.

Trainability during the sensitive periods of *accelerated adaptation to training* refers to the body's responsiveness to training stimuli at different stages of growth and maturation. Although the physiological systems of the athlete can be trained at any age, there are sensitive periods when individuals are especially responsive to specific types of training. The concept of trainability has caused considerable discussion within sport and academic communities. Trainability is well documented in coaching and research literature and provides reasonable evidence of periods of sensitivity for accelerated adaptation to training and/or exposure to various stimuli.

Golf relevance: *establishing sound golf-specific technical execution throughout the main growth and maturation periods should be seen as the priority, coupled with an understanding of the speed of execution of the golf-specific movements in relation to the individual's development.*



5 THE 10 S'S OF TRAINING AND PERFORMANCE

Stamina (Endurance), Strength, Speed, Skill, Suppleness (Flexibility), Structure/Stature, Schooling, (p)Sychology, Sustenance, and Socio-Cultural. Building on the original *Five S's of Training* (Dick, 2007), the array of 10 S's provides a comprehensive and holistic array of factors to be considered when planning a program for developing athletes. A number of specific resources are available to athletes, parents, coaches and others concerning these factors via the *Canadian Sport for Life* website (www.canadiansportforlife.ca).

Golf relevance: *PGA of Canada professionals and member associations should ensure that his/her professional development involves an understanding of age-appropriate planning and periodization knowledge and strategies.*

6 MENTAL, COGNITIVE AND EMOTIONAL DEVELOPMENT

Mental, cognitive and emotional factors are essential to each player's development. Not only is holistic development—which encompasses all of these factors in addition to physical development—beneficial to the individual, but all of these skill sets are interlinked.

Just as physical and technical skills require long-

7 PERIODIZATION

Simply put, periodization is time management. As a planning technique, periodization 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 on priorities and the time available to bring about the required training and competition improvement. In the context of *LTPD*, periodization connects the stage a player is in to the requirements of that stage.

Periodization, far from being a single fixed process or methodology, is in fact a highly flexible tool. When used appropriately in conjunction with sound methodology as well as ongoing monitoring and evaluation, it is an essential component in optimal sports programming and athlete development at all levels.

Golf relevance: *The competition stream of LTPD is typically a 10–15 year process optimizing physical, technical, tactical (including decision making) and mental preparation as well as the supporting ancillary capacities. Each annual plan is based on identified periods of athletic preparation, competition and the transition into the next calendar plan.*

term and sequential development, so too do the psychological aspects of athlete development. This includes a range of knowledge sets such as the underpinnings of fair play and ethical sport; mental skills for performance; emotional regulation; sequencing; and decision-making. A major objective of *LTPD* is a holistic approach to player development which includes emphasis on ethics, fair play and character building throughout the various stages—an objective that reflects



Canadian values. Programming should be designed with consideration for the player's cognitive ability to address these concepts.

Golf relevance: *the rules and etiquette of golf, together with the psychological platform required for golf practice and competition, set a unique challenge for players to develop over years a repertoire and fortitude to perform on demand.*



8 COMPETITION

Optimal competition calendar planning at all stages of *LTPD* is critical to athlete development. At certain stages, developing the physical capacities take precedence over competition. At later stages, the ability to compete well becomes the focus. It should be noted that optimal sport-specific competition ratios are required for all stages of *LTPD*. Level and length of the competition season should be aligned with the changing needs of the developmental player progressing through the stages.

Over-competition and under-training at the *Learn to Golf* and *Introduction to Competition* stages will result in a lack of basic skills and fitness. The appropriate level of competition is critical to technical, tactical and mental development at all stages.

Golf relevance: *the design of age and/or stage relevant competition (or assessment) systems is a crucial element in the overall development of individual players and the LTPD program as a whole. PGA of Canada professionals should give serious consideration to what player assessments and competitions should look like throughout the LTPD pathway.*

9 EXCELLENCE TAKES TIME

It has been suggested a minimum of 10 years of practice (sometimes stated as 10,000 hours) is needed for expert performers in any field to reach the elite level. Other evidence indicates elite players require at least 11–13 years of practice to reach levels of excellence. The essential lesson is the same—there are no short cuts to achieving excellence.

Player development is a long-term process and elite players will require approximately a decade or more of practice to achieve international standing. As part of this process, short-term performance goals must never be allowed to undermine long-term player development.

Recently, the validity of the 10,000 hours concept has been questioned and it has been suggested athletes can achieve excellence in much shorter periods of time. These suggestions, however, do not take into account the sports and activities that players participated in prior to specialization. Principals of *LTPD* emphasize a multi-sport approach and that all former activities should be

10 SYSTEM ALIGNMENT AND INTEGRATION

A critical goal for the *Canadian Sport for Life* movement and specifically for each sport is the alignment of all stakeholders and partners under a common overarching objective with a clear understanding of the roles and responsibilities of all concerned.

Golf relevance: *it is clear that all parties involved in Canadian golf—including PGA of Canada professionals, course owners, golf administrators and parents—need to rally behind the LTPD blueprint and commit to acting in unison. Synergies can result from positively harnessing the different roles and responsibilities of each stakeholder in order to both ensure and progress the future of golf in Canada.*

included in the assessment of the process as they are an integral part of the extensive investment in the pathway. Whether it is 10,000 hours (or less), excellence always takes time.

Golf relevance: *the LTPD pathway requires a significant investment of time devoted to practice, play and appropriate competition experience coupled with a multisport/activity background. It has been suggested that in golf, closer to 20,000 hours is required to achieve excellence.*



11 CONTINUOUS IMPROVEMENT — KAIZEN

The *LTPD* framework is based on the principle of continuous improvement, both in its dynamic evolution and in its application.

Golf relevance: *the entire golf community must constantly strive for and ruthlessly act to continually improve every facet of the golf industry.*

STATE OF THE NATION — WHERE WE'VE COME FROM

To address the current state of Canada as a golfing nation, we must first look back at the goals set by the initial *LTPD* Guide in 2006. The following must-do initiatives were identified in the original *LTPD* Guide have been launched or implemented:

- Identification of Canada's player pathway.
- Development of sophisticated methods for tracking our best junior players (i.e. *Foresight*, *Order of Merit*, *Shot by Shot* and others).
- Integration of National Coaching Certification Program (NCCP) into the PGA of Canada coach education model in all three identified streams of development.
- Integration of golf into the physical health and education curriculum of the Canadian school system.
- Increased the importance of grassroots participation programs:

- **Future Links, driven by Acura**—The *Golf in Schools* program has been developed by Golf Canada and the PGA of Canada in partnership with PHE Canada to deliver physical education learning outcomes through the sport of golf in both elementary and high schools.
- **Future Links, driven by Acura**—Canada's national junior golf program—conducted by Golf Canada in partnership with the PGA of Canada and the provincial golf associations—featuring an umbrella of quality junior golf activities designed to deliver a positive golf experience for all enthusiasts.
- **Future Links, driven by Acura, Get Linked Program**—A *get linked* initiative that bridges the gap from golf in the classroom through *Fu-*

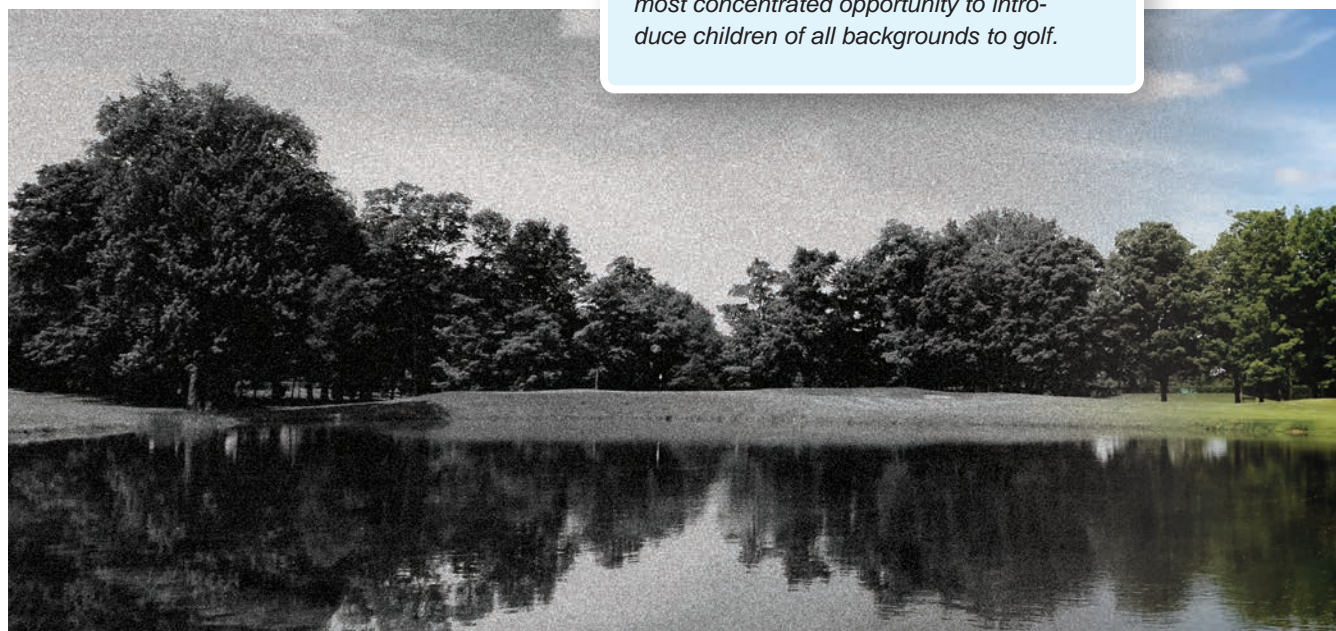
ture Links, Driven by Acura to registered *Future Links* facilities that offer quality golf activities to junior participants.

- Reduction of barriers to playing the game (i.e. golf as a physical education unit, and *Girls Club* as a focused program).
- A stronger support system for our emerging professional players (i.e. the 2014 launch of the Young Pro Squad program).
- A defined scope to *Golf For Life* that any golfer, regardless of ability, skill set or demographic

background can enjoy the many health, social and competitive benefits of golf as the game of a lifetime.

DID YOU KNOW?

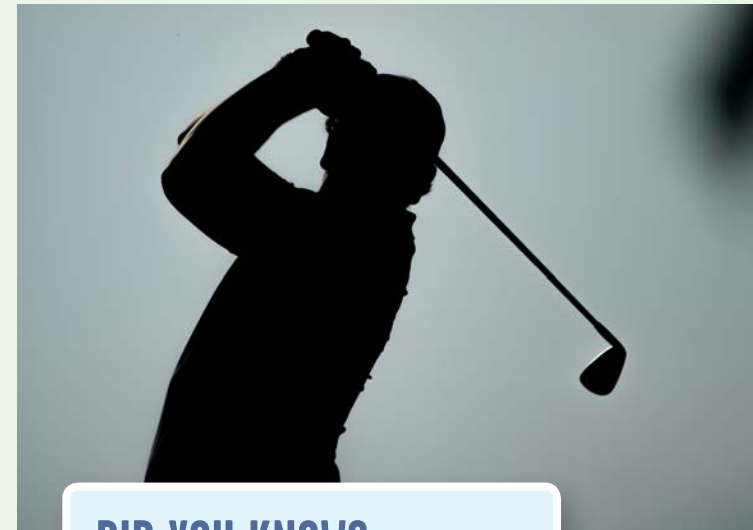
With 10,000 elementary and 4,600 high schools, the Canadian school system physical education curriculum is the single most concentrated opportunity to introduce children of all backgrounds to golf.



STATE OF THE NATION — WHERE WE'RE GOING

LTPD 2.0 brings a continued focus on working towards developing the potential of every golfer in Canada while simultaneously increasing participation in the sport. As a blueprint for player development, *LTPD 2.0* identifies a set of lofty but attainable goals:

- Refine and increase the awareness of golf's competitive pathway along with the appropriate training.
- Provide quality resources to facilities and clubs to support the implementation of *LTPD* compliant programming (i.e. *Future Links* driven by Acura, *Learn to Play, Learn to Compete*).
- Identification and partnership to establish a year-round, outdoor national training facility and educational institution.
- Identification and partnership to establish regional training centres for performance training.
- Continue to develop sophisticated methods for tracking junior golfers.
- Increase awareness and support for PGA of Canada Training and Certification.
- Develop programs and initiatives to transition school programming to golf facilities engaged in the *Future Links, Driven by Acura* national junior golf program
- Increase participation in specific initiatives and golf programs targeted at girls.
- Tap into new funding sources for *LTPD* compliant programming, including sponsorship, Sport Canada, Own the Podium and the Golf Canada Foundation.
- Work with Canadian golf industry partners to grow *Future Links, driven by Acura* and other grassroots programs.
- Leverage and support the Team Canada Amateur Squad, Young Pro Squad and Olympic players to create golf heroes for Canada's youth.
- Improve consistency of developmental high performance programming across the provincial golf associations.



DID YOU KNOW?

Canadian George S. Lyon hoisted the Olympic golf trophy when it was last contested in 1904. Golf returned to the Rio Olympic Games in 2016.



THE FRAMEWORK

The accompanying diagram encompasses the framework of *LTPD*:

The far left column outlines the applicable age groups of golf (and illustrates why golf is considered a sport for all ages).

The second column from the left categorizes the *Development Stages* into two groups: Physical Literacy and Healthy, Active Lifestyle.

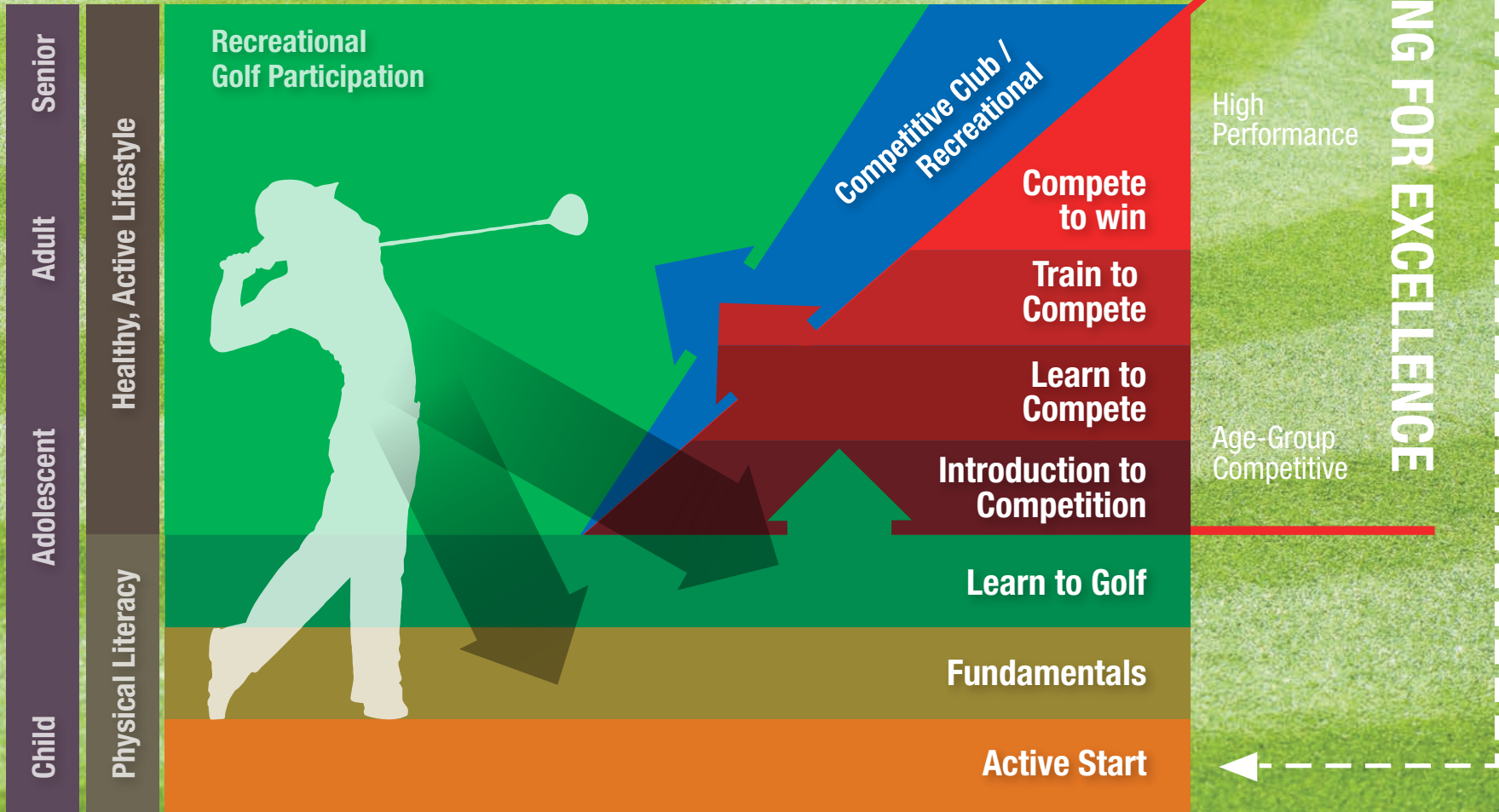
- The **first three rows** (*Active Start, Fundamentals* and *Learn to Golf*) rows of the framework are classified under the *Physical Literacy* category as players are still learning and developing basic motor skills during this phase of their lives.
- The right side of the diagram outlines the overall *LTPD* stages of development.
- The middle of the *Development Stages* in **red** mark the beginning of the competition stream (Note the arrows signifying upward as well as outward progress. In addition, mid-youth and late entry into the competitive mainstream is possible and arguably should be encouraged for those inclined).
- The **blue** section represents those that are recreational golfers, yet still compete against one another in a friendly setting (Note this section is not included as one of the eight development stages).
- The largest portion of the diagram is **green**, representing the recreational aspect of golf as a sport for life. One of the unique factors that makes golf special is that at any point along the *LTPD* trajectory, a player can choose to focus on the health, social and competitive benefits of the game as a recreational enthusiast.



Golf For Life drives new golfer participation

GOLF FOR LIFE

AIMING FOR EXCELLENCE



Development Stages

JUNIOR COMPETITIVE PATHWAY

The Junior Competitive Pathway diagram takes a closer look at the development stages of *LTPD*, first outlined in the framework diagram on the previous page. The eight development stages provide a general outline of how and when males and females should be progressing through the various stages of development. The age ranges—

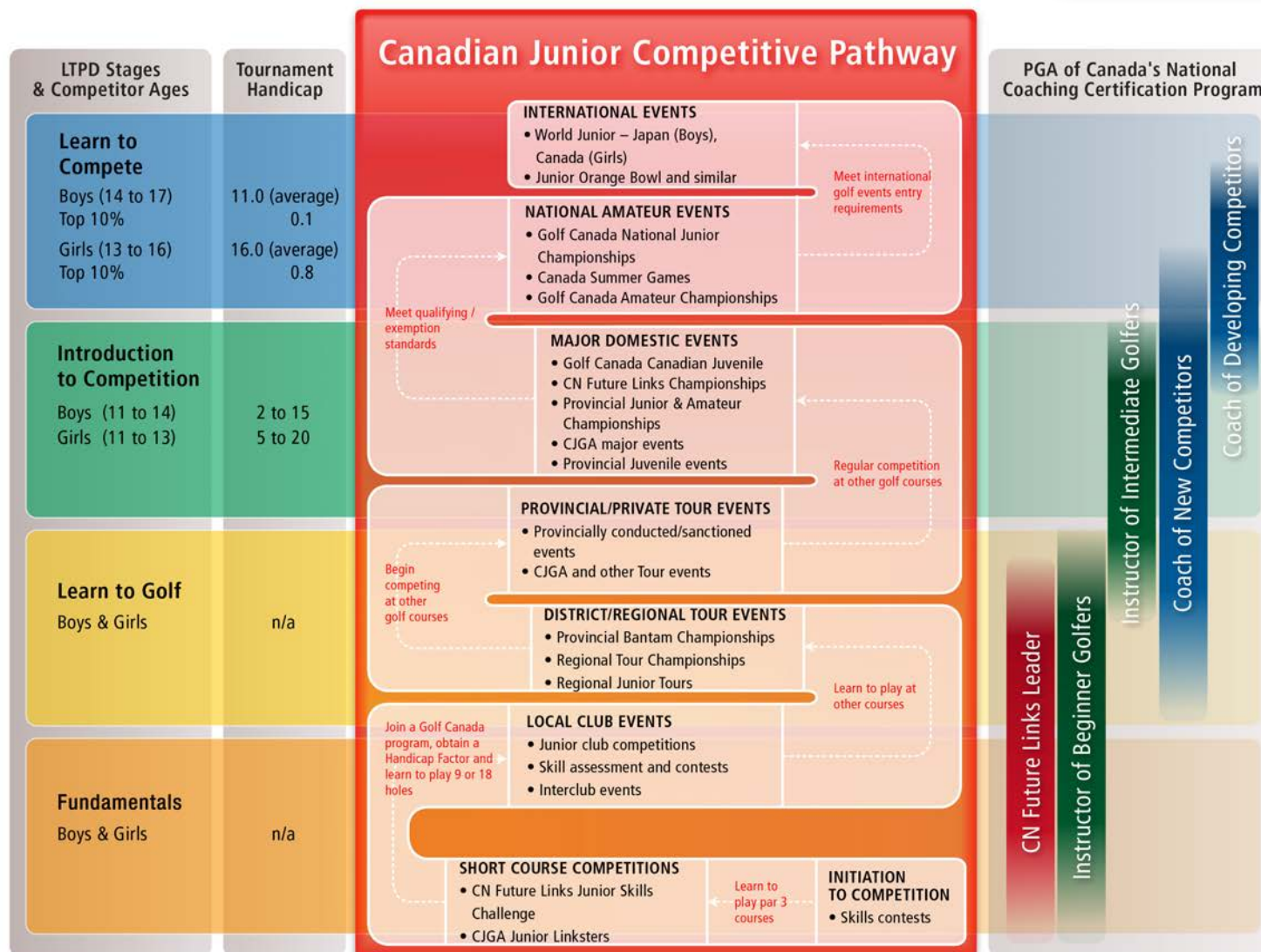
which may vary depending on the athlete—are based on both scientific developmental research as well as in-depth data analysis.

It is important to note age ranges are slightly different between males and females as the athlete matures. Research has shown that the

competitive pathway for males typically takes four to six years longer than that of females.



Additional information can be found at golfcanada.ca/LTPD



DEVELOPMENTAL STAGES OF THE COMPETITIVE PATHWAY

GOLF FOR LIFE



	MALES	FEMALES
Compete to Win	(22+)	(19+)
Train to Compete	(17-22)	(16-19)
Learn to Compete	(14-17)	(13-16)
Introduction to Competition	(11-14)	(11-13)
Learn to Golf	(8-11)	(8-11)
Fundamentals	(6-8)	(6-8)
Active Start	(0-6)	(0-6)

PERFORMANCE TRAJECTORY

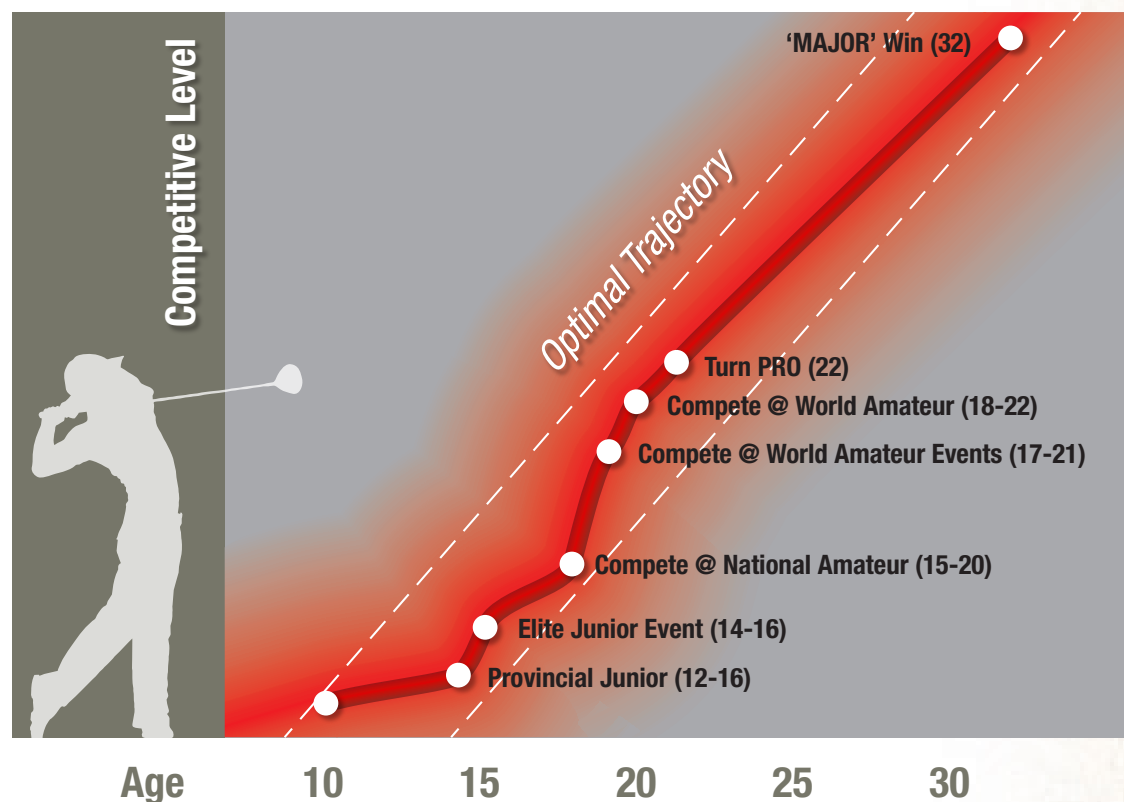
The path of every athlete leaves a measure of progression that can be studied.

The *Performance Trajectory* diagrams (male/female) overview the current and historical time frame for competitive males and females en route to playing careers in professional golf (these time frames reflect hypothetical pathways). The red line signifies the average progression of the top ranked players over the past 10 years as they move towards competing effectively and winning on professional tours.

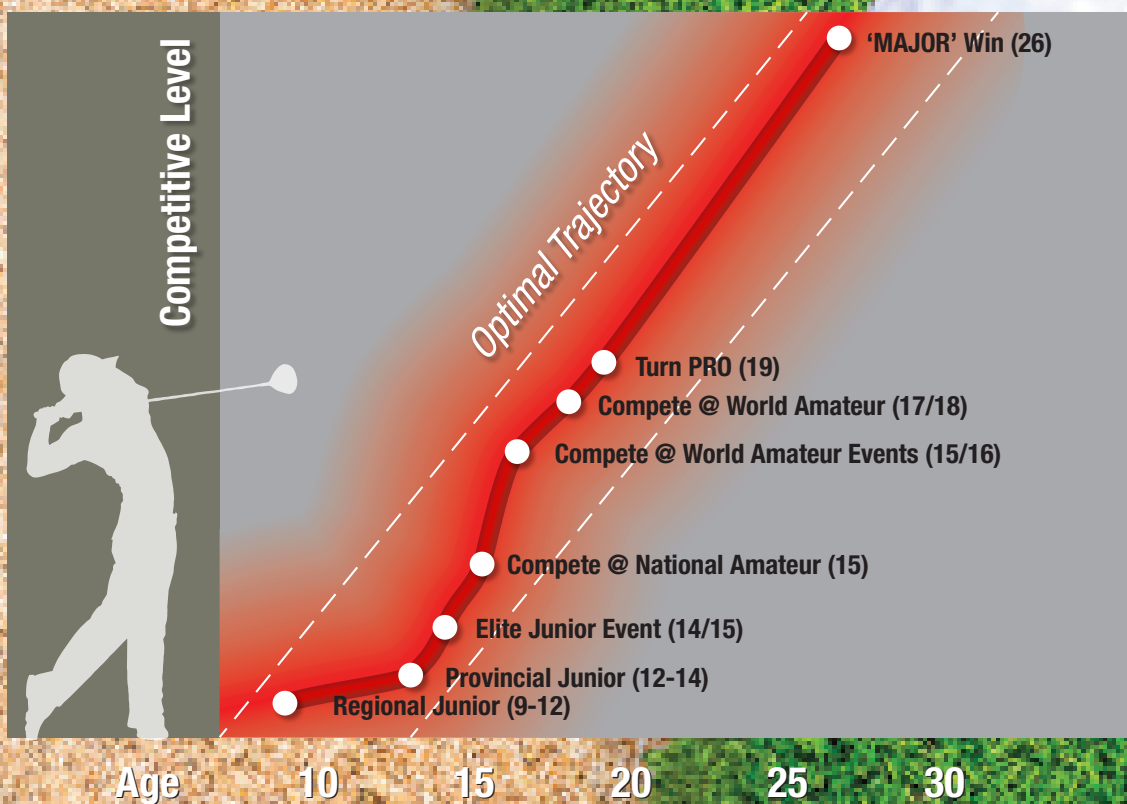
The shading on either side of red line demonstrates that there are outliers—both those who excel at a younger age and those who take longer to excel. It should be realized that the hypothetical pathway is much broader than might be typically understood. In general, the diagrams suggest guidelines for the level of performance outcome for males and females as the athlete progresses along the pathway. The diagram assumes a clear understanding that the complete golfer should be the focus for development, rather than the golfer that simply wins at a young age due to a short-lived or transient age group advantage.

Although significant data mining has been utilized in constructing these trajectories, they are simply meant to provide some guidance in terms of overall competitive outcomes rather than serve as fixed points of evaluation. In some instances, athletes may not follow this trajectory exactly. The trajectory should, however, be referred to often by coaches and players alike with the goal of staying between the white dotted lines.

PERFORMANCE TRAJECTORY – MALE



PERFORMANCE TRAJECTORY – FEMALE





INSTRUCTION/COACHING

The sport of golf has adopted a context approach to its instructor and coach development in order to best serve the participants in each stage of the Long-Term Player Development Guide. This approach ensures that the instructors and coaches working with participants in a particular context are trained specifically in the areas where these participants require expertise.

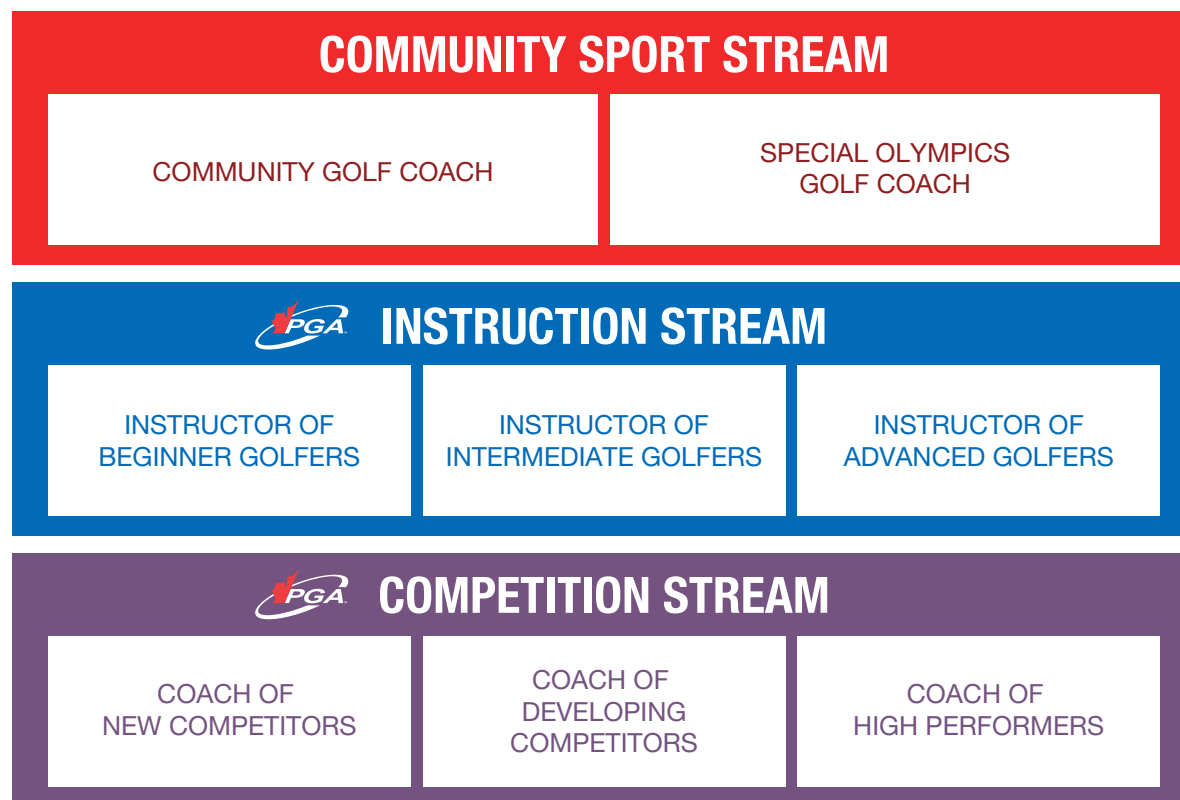
The PGA of Canada's National Coaching Certification Program (NCCP), developed in collaboration with Golf Canada and the Coaching Association of Canada, features three distinct streams:

1. Community Sport
2. Instruction
3. Competition

The *Community Sport Stream* is a phase of development where participants are being initiated into the game. This stream is aimed at supporting young children ranging from 6-12 years of age. There is a wide-range of sports using volunteers as the core leader in the early development of young participants. The sport of golf has recognized that to be more accessible, volunteers must be at the heart of the model.

This grassroots level of leadership is open to individuals who are not members of the PGA of Canada. They must complete a two-day workshop culminating in them being trained as *Community Golf Coaches* capable of delivering the *CN Future Links Learn to Play* program. These *Community Golf Coaches* will play a vital role in supporting other *Community Golf Coaches* and PGA of Canada professionals at club level junior programs by assisting with the administration and/or delivery of the program.

GOLF'S NATIONAL COACHING CERTIFICATION PROGRAM



The *Instruction Stream* is designed for PGA of Canada professionals who work with individuals looking to learn the skills required to play the game, often recreationally. Being involved in the learning of the core technical skills may also be a precursor to competing later in their development.

The *Instructor of Beginner Golfers* context is one which trains instructors working with an individual who is new to golf or has minimal experience in the sport. This training prepares them to support individuals learning the fundamentals of the full swing and short game as well as golf terminology and the basics of navigating the golf course.

The context of *Instructor of Intermediate Golfers* is focused on participants becoming more a part of the core golfing population. They will have had at least a moderate amount of exposure and experience in the sport, will play multiple rounds in a

given season and may have become a member at a golf course. The focus of these participants may now be based around lowering their scores, often achieved by further development of previously learned technical skills. These individuals will begin to expand their knowledge and skills while being introduced to course management, basic mental skill and ensuring their equipment is well suited to them. Local and regional competition may be of interest to some of these individuals.

The very experienced golfer will be best served by participating in instruction within the *Instructor of Advanced Golfers* context. Often regional, provincial or national competition may be a reality for these participants. While these individuals may be serious competitors, they generally are not training as or living the lifestyle of an athlete. Golf for these individuals is often recreational and there is not a motivation to further their game to evolve into a high performance amateur or professional. Their

technical skills will be of less importance and usually only require small refinements. Their main focus becomes the controlling of thoughts and emotions, strategy and tactics, using highly fit equipment and performance on demand strategies.

PGA of Canada instructors are trained in each context to enable them to best serve the individual and their golf needs as they follow the natural progression. Instructors will only be certified in a specific context once they have completed the PGA of Canada workshop training and passed the respective evaluation process as identified in each context.

The *Competition Stream* is focused on training golf coaches, primarily PGA of Canada professionals. This stream is aimed at any individual or team of athletes looking to learn the skills to compete in the sport of golf. Some young competitors may have dreams of following a pathway of develo-



ment that leads them to a provincial/national team or beyond to compete on the world's best professional tours. It is not uncommon in this stream for athletes to pursue a subsidized education through a golf scholarship at an American NCAA school or a Canadian post-secondary institution that offers a competitive golf program.

The coach who has completed training and certification in the *Coach of New Competitors* context will understand the uniqueness of coaching young athletes aged 12-16. Topics such as seasonal planning; initiation of an appropriate physical training program; technical skill development; and teaching games for understanding will be of high priority during coach training. Coaches who have been trained in growth and development as well as how young people learn will nurture these young athletes.

As within every context, the developing athlete has unique needs. A *Coach of Developing Competitors*, playing the role of both coach and role model, will now be supporting the athlete in the development of a yearly plan as these athletes have made golf their primary sport and are often competing on a very regular basis. The skill level of these athletes is at a level where they are competing on recognized national junior tours, playing events such as the *Future Links, driven by Acura Championships* and may be involved with a provincial high performance team or Team Canada. Physical training, mental skills and strategy and tactics are a high priority to the athlete and coach in this context. They are now living the life of an athlete and the coach will support them in optimizing sleep, nutrition and other areas of a healthy active lifestyle.

Parents, athletes and golf organizations can discern which type of certified coach is best suited for the athlete's individual needs. The athletes in this stream may range in age from 10-55 depending on when they decide they require formalized coaching in the skills necessary to compete at



their chosen level.

INSTRUCTOR AND COACHING PROGRAM

The NCCP for golf endeavors to accommodate all levels of golfers and athletes regardless of what stage of development they may find themselves. All instructors and coaches will undergo rigorous training that is entirely specific to the type of participant or athlete they wish to work with. Athletes, parents, instructors, coaches and associations will know the defined pathway for training and certification of golf instructors and coaches.

The natural result is that participants will benefit from the best available instruction and coaching which in turn will enable the athlete to achieve their goals.

DEVELOPMENT STAGES — THE TRAJECTORY

OVERVIEW

The *LTPD* Guide has “golfized” the Canadian Sport for Life’s Long-Term Athlete Development (LTAD) model Model to contain eight development stages.

The stages offer a progressive model of development for a player through their development in the sport of golf.

The eight developmental stages of *LTPD* include:

1. *Active Start*
2. *Fundamentals*
3. *Learn to Golf*
4. *Introduction to Competition*
5. *Learn to Compete*
6. *Train to Compete*
7. *Compete to Win*
8. *Golf For Life*

Starting with the absolute beginner in the *Active Start* stage all the way along the trajectory to the *Compete to Win* stage, *LTPD* provides a framework guide that outlines appropriate concepts, benchmarks, goals and objectives for each specific stage.

The eighth and final stage included in *LTPD*—*Golf For Life*—speaks to golf’s unique nature as an active sport of a lifetime. At any point along the player development trajectory, all participants—from beginners to high performance athletes—can enjoy the health, social and competitive benefits that golf has to offer.

In reading this guide, it is important to note that the stages of *LTPD* are based on the *developmental*

age of the golfer, NOT the *chronological age*—this is to account for the maturation of the individual golfer. Chronological ages, however, do provide some foundation as long as the participant’s developmental situation is well understood.

All of the stages outlined in *LTPD* adapt to guide participant development while also preparing them for a smooth transition into the next stage. As the expectation for proficiency within the sport increases, objectives change accordingly to align with the athlete’s development, hence the final stage named *Compete to Win*. As such, age and stage appropriate evaluation and assessment should be intertwined with the entire system so that progress can be effectively tracked. Such assessment and evaluation should examine all facets of the game and may or may not involve recognizable forms of competitive golf.

At its core, *LTPD* is centred on developing players into truly competent athletes, some of whom will have the necessary high level aptitudes and ambition to perform and ultimately win at the highest level of the game. As referred above, it is important to note that everything within this document is structured to flow outwards into the *Golf For Life* stage, which highlights golf as a unique sport that can be played by all ages and skill levels for a lifetime.

PSYCHOLOGICAL

In terms of psychological development, golfers need to develop many skills in order to reach their goals on the course. The best golfers will be able to manage their emotions during a round; stay focused on their process; be skilled at calming strat-



egies; be driven towards reaching their own goals; and be assertive in advocating for their needs along with the ability to communicate those needs to others. On the course, the golfer is resilient, confident and is willing to fail and take chances. They know why they golf and continue to love the game, but also have other interests in their life.

With respect to psychological development, it is important to consider the background (including both culture and family), the personality of the athlete and their level of engagement in this process. It is imperative to meet the player where he/she is at, as every individual has their own sense of readiness for psychological development. In order to accomplish the above, some key mental skills focused on in this document include goal-setting (process versus outcome); imagery; self-talk; ideal performance state; emotional regulation (which include self-awareness); and maintaining perspective.

PHYSICAL

The physical component of *LTPD* provides direction for appropriate training in utilizing the main factors contributing to physical ability. These physical factors not only allow the individual to play and compete in golf, but also to provide a healthy basis for life and to be able to deal with travel and other stressors. As with the other elements, the programming guidelines set out in *LTPD* are established relative to the developmental levels in each respective stage.

Golf is a physically demanding game requiring explosive power coupled with incredible precision

and the execution of complex tasks—both cognitive and physical. As an example, the average adult male uses 30 lbs. of muscle and nearly every joint in the body during the golf swing which produces 2,000 lbs. of force in less than a millisecond. Physical training can improve all aspects of a golfer's performance by enhancing flexibility, increasing club head speed and improving shot accuracy. Ensuring a solid foundation of physical literacy and an ongoing level of endurance will also assist in the prevention of injuries, as well as provide the ability to deal with the many non-sport stressors involved with playing the game competitively (i.e. travel).

Seven key physiologically-related proficiencies identified in *LTPD* include:

- Agility, Balance and Coordination
- Flexibility or Suppleness
- Posture
- Core Strength and Stability
- Strength and Power
- Cardiovascular Endurance
- Performance Skills (i.e. nutrition, recovery and regeneration strategies, lifestyle control and dealing with environmental factors)

ADDITIONAL ELEMENTS

A number of important ancillary or supporting elements are required to be available, well-understood, practiced, and optimally implemented or utilized in order for a golfer to be ultimately successful. These include, but are not isolated to, elements such as:

- Decision making
- Goal setting
- Periodized, multi-facet planning
- Nutritional support
- Recovery and regeneration strategies including the planning and execution of the prepare, compete, recover cycle
- Rigorous critical review process

From an overall performance standpoint, the following key performance areas should be attended to in an age-appropriate manner:

- Technical
- Tactical
- Psychological and Cognitive
- Physical and Physiological
- Lifestyle

All of the key performance areas above can be subdivided into or include specific elements that are important contributors to current and future performance.





TRAJECTORY



ACTIVE START

OBJECTIVE Learn fundamental movements and link them together in play.

INTRODUCTION This is an important period for acquiring fundamental movement skills which will lay the foundation for more advanced movements. Children are encouraged to lead a healthy and active lifestyle by promoting golf at an early age. In this stage, children should be provided the opportunity to develop a variety of fundamental movement skills such as *travelling skills, object control skills and balance movements.*

AGES	
M	0 TO 6
F	0 TO 6

EXAMPLES OF TRAVELLING SKILLS

- Climbing
- Galloping
- Gliding
- Hopping
- Jumping
- Leaping
- Poling
- Running
- Skating
- Skipping
- Sliding
- Swimming
- Swinging
- Wheeling

EXAMPLES OF OBJECT CONTROL SKILLS

- Kicking
- Punting
- Rolling (ball)
- Striking (ball, puck, etc.)
- Throwing
- Receiving
- Catching
- Stopping
- Trapping
- Traveling with:
 - Dribbling (feet)
 - Dribbling (hands)
 - Dribbling (stick)

EXAMPLES OF BALANCE MOVEMENTS

- Balancing/centering
- Body rolling
- Dodging
- Eggbeater
- Floating
- Landing
- Ready position
- Sinking/falling
- Spinning
- Stopping
- Stretching/curling
- Swinging
- Twisting/turning



ACTIVE START CHECKLIST:

(BALYI, WAY, & HIGGS; 2013)

- Provide opportunities for children to learn through play.
- Provide a bright, stimulating environment for play activities.
- Use a wide range of equipment and regularly rotate for variety and experience.
- Utilize unstructured and structured settings.
- Emphasize Agility, Balance, Coordination and speed (ABCs).
- Ensure equipment and facilities are scaled to the age group in question.
- Aim for a minimum of 60 minutes of activity per day.
- Be patient and understand that children will master basic movement at different rates.



PHYSICAL BENCHMARKS

The following provides a general guideline to the key areas of development at this stage:

- Child demonstrates the ability to link fundamental movement skills (i.e. running, jumping, catching, throwing, coordination, agility, etc.) into overall play.
- Child is able to accept redirection to ensure a safe learning and play environment.
- Child demonstrates a willingness to participate in golf-related activities.
- Child is able to take small swings and execute small shots towards a very close target using junior equipment.



WHERE TO PLAY

The following are suggestions of practice facilities or locations for children in this stage:

- Local gymnasium
- Backyard
- Community park
- Mini-putt courses
- Par-3 courses



COACHING/INSTRUCTION

All instructors and coaches undergo PGA of Canada training that is entirely specific to the type of player or athlete they wish to work with. The recommended level for this stage is listed below:

- *Community Golf Coach*
- *Instructor of Beginner Golfers*



PRACTICE

No required amount of formal practice hours at this level. Reinforce a positive first experience in golf with the amount of practice time, through play, dictated by the child's interest.



COMPETITION

Competition in its literal sense is not encouraged during this stage of development. Rather, participation and stimulating activities that promote a fun environment should be the focus.

EQUIPMENT

Equipment needs to adapt accordingly with children as they progress through the development stages. The information below is a recommendation for what equipment is recommended at this stage:

- Children at older ages in this stage may be introduced to developmental equipment such as *Tri-Golf* or *Snag Golf*
- Children can also be introduced using traditional equipment
 - Golf Canada Junior set
 - U.S. Kids Golf

GOLF KNOWLEDGE

Golf is a sport rich in tradition, rules and etiquette. Below are some outlines for how that information should be conveyed to players:

- Introduce children to the golf environment by showing the pro shop layout, practice range facilities and other extra facets of the sport.
 - Driving ranges, putting greens, mini-putt facilities, etc.
- Ensure that the child's first exposure to golf is a positive experience.



PHYSICAL

A child will likely have difficulty participating in any sport in later years without having developed an array of basic movement skills that can be evolved into proficient sport-specific skills (i.e. a child must learn the basic skill of catching an object if future enjoyable participation in sports such as basketball, baseball, football, handball, rugby, and softball is to occur). Rather than exclusive involvement in one or a limited number of sports, children should be exposed to many activities in order to develop the basic movement capability or *physical literacy*. In the very early years, physical activity is largely in the form of exploratory movements and active play.

Fundamental movement skills such as skipping, jumping, spinning, rolling, punching, kicking, striking, sprinting and throwing are the focus at this age.

Agility, Balance, Coordination and speed (ABCs) of athleticism and games:

- Speed, running, jumping throwing and catching
- Hockey, baseball, tennis, etc.
- Rhythm activities, music and dance

PSYCHOLOGICAL

Children should be introduced to simple language of mental skills training. The ability should be nurtured, as this will become the foundation for imagery skills in high performance players. This stage should be focused upon play and mastering basic movement skills. Physical activity should be highly enjoyable and be achieved through both structured and unstructured free play across a wide variety of body movements.

Golf should be about having fun, physical activity and establishing a foundation for the child's future in sport. Incorporating mental skills as part of the lesson will enhance their connection to the activity (mind and body) and set the stage so that they are able to manage the demands that will come from sport participation. A positive sport experience at a young age is important for future involvement so creative and imaginative teachings are encouraged. Prepare your explanations to be brief and precise.

ADDITIONAL ELEMENTS

Any aspects introduced in this stage will be of a very simple nature (i.e. the concept of *warm-up* and *cool down*).

Since the notion of resourceful and resilient children and youth is an endpoint for the developmental years, teaching environments that promote *trying one's best, never giving up, understanding that mistakes will be made en route to success,* and that a *strong work ethic is advantageous* are to be encouraged.





KEY STAKEHOLDERS

The groups below outline the key stakeholders associated with this stage and what is needed from each to succeed. The help and support from the following stakeholders is vital for complete development:

Schools

- Focus on incorporating golf into physical education curriculum.
 - *Golf in Schools* program
- Creating links from schools to golf facilities.
 - *Future Links Get Linked* program

Municipalities

- Community centres to deliver *LTPD* compliant junior programming.
 - *Future Links, driven by Acura*
- Golf facilities owned by the municipality should be leaders in junior golf.

Parents

- Encourage child to participate in all sports.
 - Gymnastics
 - Swimming
- Other sports that build fundamental movement skills that apply to golf.
 - Hockey
 - Baseball

Golf Facilities

- Providing access to juniors.
- Offering *LTPD* compliant junior programming.
 - *Future Links, driven by Acura*
 - *Future Links, driven by Acura Get Linked*

Golf Associations

- Golf Canada delivers *LTPD* content and continues to lead research efforts.
- PGA of Canada promotes the *LTPD* Guide to its membership base.
- Provincial Golf Associations support distribution and execution of the *LTPD* Guide.
- National Golf Course Owners Association to be aware of *LTPD* and promote to its membership base.

Coaches/Instructors

- Maximize the *LTPD* Guide to create Canadian champions.
- Complete *Community Golf Coach* training.
- Complete PGA of Canada *Instructor of Beginner Golfers*.



For resources relating to this stage and other elements of *LTPD*, visit www.golfcanada.ca/LTPD



TRAJECTORY



FUNDAMENTALS

OBJECTIVE Learn fundamental movement skills and build overall motor skills.

INTRODUCTION *Fundamentals* should focus on the development of physical literacy. The fundamental movement skills introduced in *Active Start* should continue to be developed and build towards the development of motor skills. The child's participation in many different sports and activities should be encouraged. Fun activities can also be introduced at this stage in a team environment. The introduction of golf specific skills will occur during this stage.

AGES	
M	6 TO 9
F	6 TO 8



FUNDAMENTALS CHECKLIST:

(BALYI, WAY, & HIGGS; 2013)

- Keep it fun.
- Ensure participation in many sports and activities to ensure strong development.
- If possible, enroll children in programs that offer a wide variety of activities.
- Have children practice fundamental movement skills before introducing sport-specific skills.
- Emphasize ABCs development.
- Use games to develop strength, endurance and flexibility.
- Develop strength through body weight exercises and activities.
- Introduce the basic rules and ethics of sports.
- Ensure that club weight, length, grip, shaft and club head are appropriate for children.
- Don't be concerned with the score; focus on learning and having fun.
- Don't get caught in the specialization trap—developing all-around players at this age is far better.



KEY CONCEPTS

Introduce

- Putting
- Chipping
- Full swing
- Greenside bunker



TECHNICAL BENCHMARKS

- Continue to develop physical capacities, fundamental movement skills and the ABC's of athleticism: Agility, Balance, Coordination and speed.
- Be introduced to movement exercises that focus on mobility, flexion, extension, side bend and multi-segmental rotation.
- Be introduced to the basic elements and terms used for golf equipment including: club face, heel of club, toe of club, shaft and grip.



WHERE TO PLAY

- 9 hole courses
 - *Tee it Forward* program
- Executive par-3 courses
- Practice ranges
- Mini putt courses



COACHING/INSTRUCTION

All instructors and coaches undergo PGA of Canada training that is entirely specific to the type of player or athlete they wish to work with. The recommended level for this stage is listed below:

- *Community Golf Coach*
- *Instructor of Beginner Golfers*



PRACTICE

- A benchmark for practice is not required at this stage—volume and frequency should be at the discretion of the child.
- Encourage enjoyment above all else.



COMPETITION

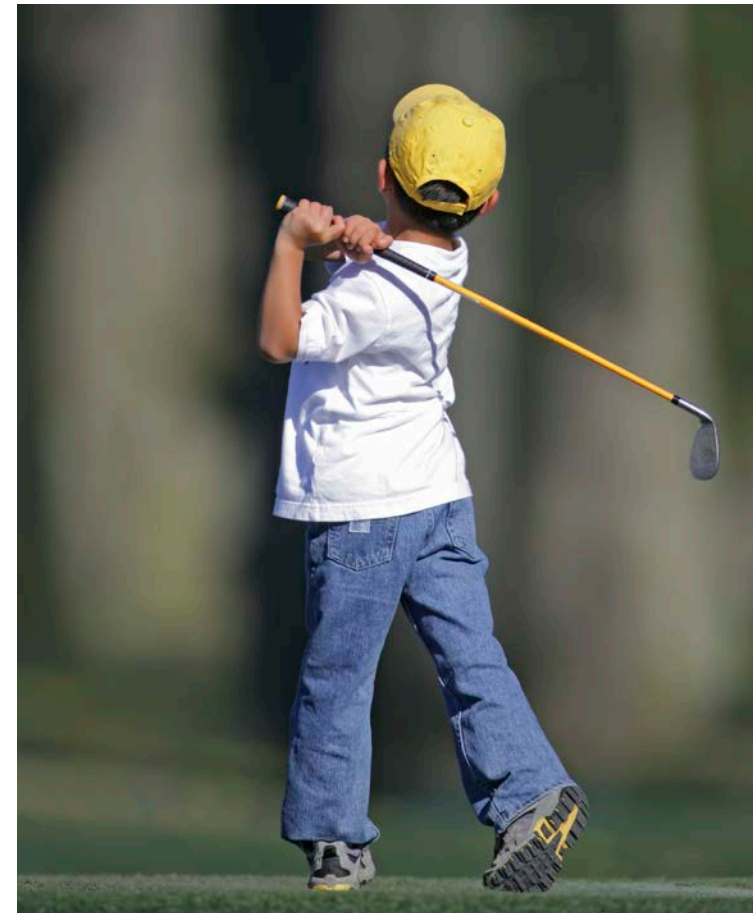
- Reinforce competition against your own skills.
 - *Future Links, driven by Acura Jr. Skills Challenge*
- Fun activities in a team environment.
 - *PGA Junior League delivered by Future Links, driven by Acura.*



EQUIPMENT

At a minimum, age appropriate junior golf clubs should include a:

- Putter
- Wedge
- Fairway iron
- Fairway hybrid





GOLF KNOWLEDGE

- Etiquette (i.e. being quiet when someone is hitting, where is a safe place to stand during play)
- 11 Golden Rules of Golf Safety
- Be able to name different parts of the golf course such as tee, green, fairway, bunker and rough
- Be introduced to the basic concept of recording score and the order of play



PHYSICAL

This stage will begin to show the development of general movement and athletic skills (physical literacy) of children. This will also include general athleticism and the development of the central nervous system, meaning the influence and activity of all parts of the body. In combination, this stage is a critical foundation period where unstructured physical activity and play are crucial. These aspects are then combined with exposure to more organized and structured physical activities that are immersed in environments that promote fun and individual improvement.

Fundamental movement skills such as skipping, jumping, spinning, rolling, punching, kicking, striking, sprinting and throwing are the focus at this age. Relating how each sport skill has common characteristics to their golf game will likely increase skill transfer.

Agility, Balance, Coordination and speed (ABCs) of athleticism and games:

- Obstacle courses
- Introduction to strength (own bodyweight)
- Rhythm activities, music and dance
- Introductory golf programs (i.e. *Future Links, driven by Acura Learn to Play; Take a Kid to the Course Week*)



PSYCHOLOGICAL

In this stage, children should begin to pay attention to the things they are doing that work well for them (this will serve as the foundation for performance state, and also pre and post-shot routines). Basic energizing and calming skills should be introduced and this is a great time to start talking about a process-focus and basic reflective process. Children also benefit from talking about the negative affect and strategies to help manage it.

Children are motivated to have fun with their friends. They cannot listen or stay still for long periods and are enthusiastic to move. They will require specific direction and feedback as opposed to trial and error. As a result, learning will come from a combination of visual, verbal and hands-on means using creative methods.

The beginning of self-awareness is an important component that will provide children with tools moving forward. Keep in mind that they cannot make corrections to their performance skills unless they understand specifically what is being asked of them. Maintaining the focus on one simple aspect will be helpful.

Emphasizing actions and efforts over results will provide a motivating climate to learn. They are more tuned in to the concept of fairness as well.

Children at this age also enjoy using big words as their language skills improve. Have fun being creative with words to describe physical sport specific skills. Prepare your explanations to be brief and precise. Try to give specific instructions for example, “relax just like jelly belly” instead of “relax”. This will help them connect to the



ADDITIONAL ELEMENTS

exercises for more value.

This phase will see the introduction of elements such as warm up and cool down, objectives (goal setting) and how to live a healthy, active lifestyle.



GREAT DEBATE—WHAT IS MY ROLE AS A PARENT?

JEFF THOMPSON, CHIEF SPORT OFFICER, GOLF CANADA

This is one of the most frequently discussed and most delicate aspects of a young golfer's development. The parent's role is super important as an integral part of the overall performance team. I have to emphasize that last part: as an integral part of the overall performance team.

All too often, we see incidents where the parent's perspective or involvement, often inadvertently, becomes unhealthy and actually counter-productive to the young player's development. We, as a sport, may be somewhat to blame for this, simply because of the unique nature of golf. In other sports, the child is taken to a practice or a game or a tournament where the coach is always present. In golf, the child is taken for a lesson or practice session, but seldom is their coach present when they are in a competition, particularly in the early stages of their development. This is not an invitation for parents to step in as pseudo-coaches; rather, it is an opportunity for the young golfer to develop decision-making skills and a sense of independence.

My best advice for parents who may be on the verge of becoming overly involved is to take a step back and ask themselves what is best for their child. That is the best indicator, in my opinion.

A couple of years ago, we produced a publication called *The Role of Parents and Coaches* (visit golfcanada.ca/LTPD).

In it, we summarized the following vital contributions of a parent/guardian to the healthy development of young golfers. To provide each child with unconditional love regardless of their golf performance; to provide appropriate food, clothing, and shelter to the best of your ability; to communicate with coaches and golf officials as necessary; to have a discussion with the child to find out exactly how they want you to act as a golf parent; to interact with each child as a human being, not a golfer; to support and encourage coaches, local PGA of Canada professionals, personal coaches and golf officials.

In general, your role as a parent is to love, support and reward your child. Don't judge, don't coach, don't live vicariously through your child. Golf is tough enough already!





KEY STAKEHOLDERS

The groups below outline the key stakeholders associated with this stage and what is needed from each to succeed. The help and support from the following stakeholders is vital for complete development:

Schools

- Focus on incorporating golf into physical education curriculum.
 - *Future Links, driven by Acura program*
- Creating links from schools to golf facilities.
 - *Future Links, driven by Acura Get Linked Program.*

Municipalities

- Community centres to deliver *LTPD* compliant junior programming.
 - *Future Links, driven by Acura*
- Golf facilities owned by the municipality should be leaders in junior golf.
 - *National Junior Golf Development Centres*

Parents

- Encourage children to participate in all sports.
- Other sports that build fundamental movement skills that apply to golf.
 - Gymnastics

- Swimming

Golf Facilities

- Providing access to juniors.
- Offering *LTPD* compliant junior programming.
 - *Future Links, driven by Acura*
 - *Future Links Field Trip Program*

Golf Associations

- Golf Canada to deliver *LTPD* content and continue to lead research efforts.
- PGA of Canada to promote the *LTPD* Guide to its membership base.
- Provincial Golf Associations to support distribution and execution of the *LTPD* Guide.
- National Golf Course Owners Association to be aware of *LTPD* and promote to its membership base.

Coaches/Instructors

- Maximize the use of the *LTPD* Guide to create well developed children.
- Complete PGA of Canada *Instructor of Beginner Golfers*.
- Complete *Community Golf Coach* training.



For resources relating to this stage and other elements of *LTPD*, visit www.golfcanada.ca/LTPD



TRAJECTORY



LEARN TO GOLF

OBJECTIVE Continue to develop fundamental movement skills and golf fundamental movement skills.

INTRODUCTION *Learn to Golf* is the beginning of a critical window to develop fine motor skills. During this phase, players have the best opportunity to learn and master fine motor skills that can be used in combination with other skills (i.e. balance and swinging the club at the same time). In most cases, what is learned and not learned during this stage could have a very significant effect on the level of play that is achieved in the later stages of a player's development.

AGES	
M	9 TO 11
F	8 TO 11



LEARN TO GOLF TO-DO LIST:

(BALYI, WAY, & HIGGS; 2013)

- Continue to encourage children to engage in unstructured physical play every day.
- Repetitive unstructured and imaginative play helps to develop, reinforce, and master skills.
- Enroll children in youth sport programs each season and have them try different positions or events.
- Encourage children to take every opportunity to play different sports at school.
- Children should try a wide range of activities (land-based, water-based, and snow/ice-based), including movement-to-music programs.
- Keep children involved in activities that continue to develop stamina, strength, speed, skill and suppleness.
- Keep sport and physical activity fun.
- Further develop all fundamental movement skills and teach general, overall sport skills.



KEY CONCEPTS

Develop

- Putting, chipping, full swing and greenside bunker play

Introduce

- Pitching, green reading and club selection



TECHNICAL BENCHMARKS

Develop proficiency in fundamental movement skills such as running, jumping, and throwing.

- Develop motor and golf specific movement skills.
- Further develop general athletic abilities.
 - 1) Strength
 - 2) Endurance
 - 3) Flexibility
 - 4) Motor skills and coordination development



WHERE TO PLAY

- Minimum of 1,000 yards (9 hole course—par-3 layout)
- Course length for males: 4,500–5,700 yards (18 holes)
- Course length for females: 3,000–5,000 yards (18 holes)
 - See appendix 2
- *Tee it Forward* program



COACHING/INSTRUCTION

All instructors and coaches undergo PGA of Canada training that is entirely specific to the type of player or athlete they wish to work with.

The recommended level for this stage is listed below:

- *Instructor of Intermediate Golfers*
- *Instructor of Beginner Golfers*
- *Community Golf Coach*



PRACTICE

Practice using a variety of fun activities that begin to incorporate other skills required to play such as strategy and tactics.

Type: Highly randomized (80%) avoiding any long duration of blocked sessions. Practice time may often be with other juniors in activities, games and small competitions.

Duration: 30–60 minutes per session

Volume: 1–5 hours per week of practice

Quality ball strikes should be monitored by the coach/instructor to assess the ability of the child to strike the ball in full concentration with the goal of improving feel, skill and/or score.



COMPETITION

In the later ages of this stage, competition may become more formal and it must be handled appropriately. Competition in the right environment, at the right time and in the right intensity can contribute to the development of the child (keeping in mind that competition is a good servant but a poor master!)

- *Future Links, driven by Acura Junior Skills Challenge*
- Junior club events
- Interclub league/team events
- Local junior tours
- *Canadian Junior Golf Association*
- *Maple Leaf Junior Tour*



EQUIPMENT

At a minimum, age appropriate junior golf clubs should include a:

- Putter
- Wedge
- 5, 7 and 9 iron
- Fairway hybrid/wood



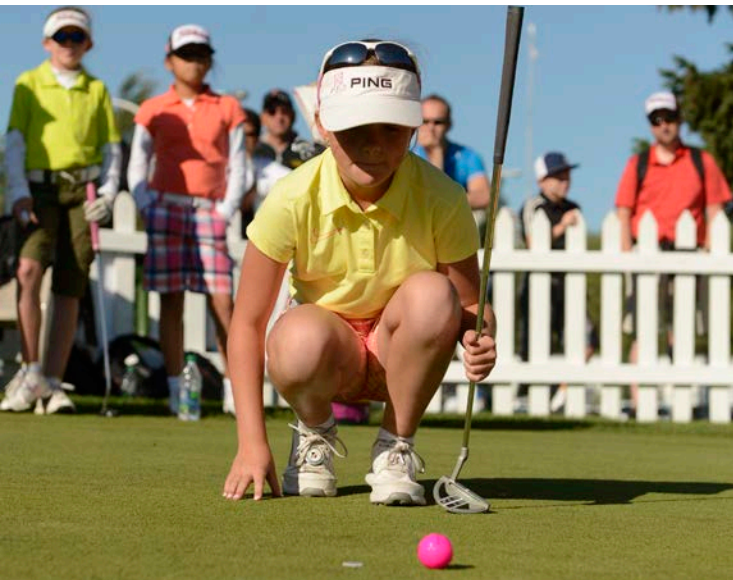
GOLF KNOWLEDGE

- Driver
- General rules of golf introduced through on-course examples
 - Golf Canada's *Easy Guide to the Etiquette and Rules of Golf*
 - Implementation of etiquette into game format
 - Introducing keeping score
 - Introducing pace of play

More Advanced Level of Etiquette: The child demonstrates a more advanced understanding of golf etiquette (i.e. safety keeping score of self and others; raking bunkers; repairing ball marks; where to leave your golf bag).

Although inconsistent, the child is aware of other people and objects when swinging. On-course safety is also introduced (i.e. the child can explain what to do in case of lightning while practicing or playing).

Rules of Golf: The child demonstrates a basic knowledge of the *Rules of Golf* including examples such as order of play; when a penalty stroke should occur and how to take relief and use of tee mark-



PHYSICAL

ers.

Since this stage is an important period for skill learning, exemplary instruction and environments that are both challenging and encouraging are critical. This phase should establish and reinforce basic and sport-specific movement skills.

As a continuation of the fundamentals of movement, a variety of sports, music, dance, gymnastics and other related rhythmic activities can all play an important role.

Use unstructured and structured programming to gradually improve physical capacities in a coordinated fashion with how the player's body is developing.

Strength and conditioning should build upon the previous stage in a manner that is appropriate to this developmental stage, typically involving games and imaginative circuit training. Activities that involve the player's own body weight, gymnastic or medicine balls are favoured. Obstacle courses can also be used to great effect.



ADDITIONAL ELEMENTS

This phase will see further development of the elements introduced previously as well as the player's demonstration of increased understanding of golf



PSYCHOLOGICAL

fundamentals and physical movement concepts. In this phase, players should be introduced to the concept of practicing basic mental skills, including discussion around the idea of managing strategies for focus. Players should also be introduced to the area of performance state when they are at their best. A basic mental skills assessment should be established with the player, discussing the implications of the findings for their game.

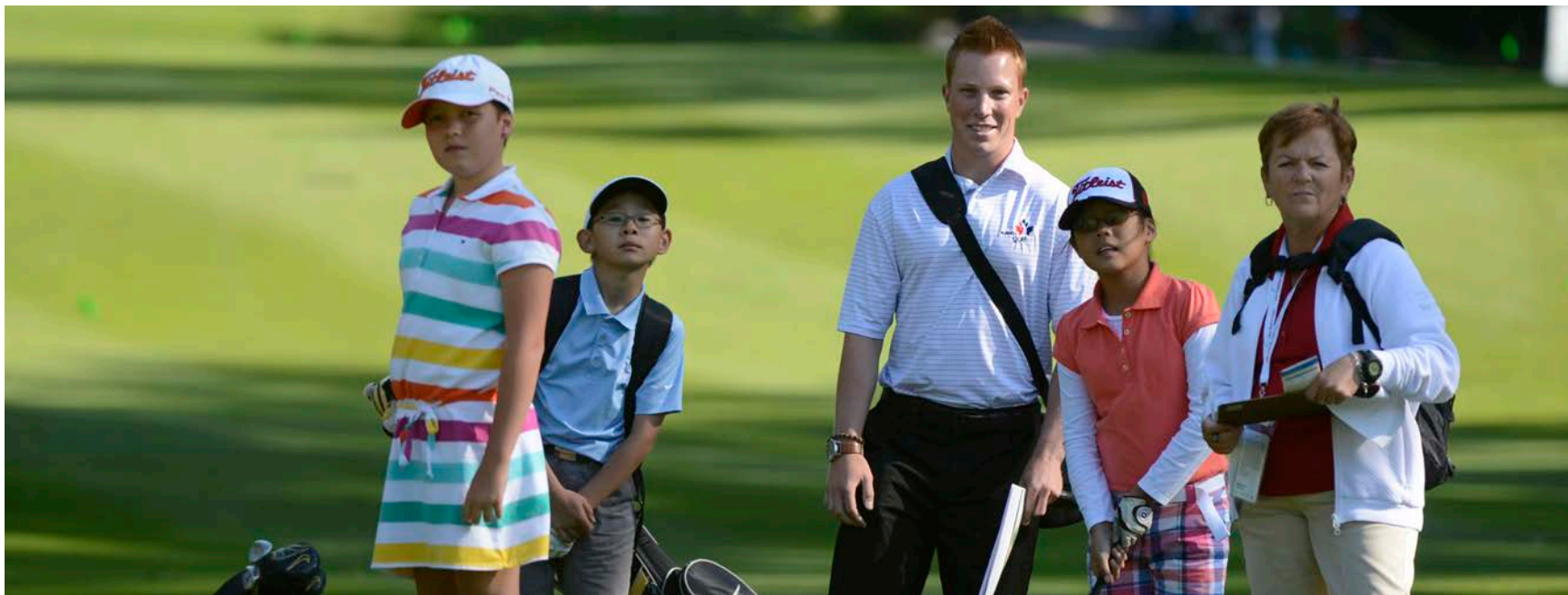
Players should practice calming strategies and other concepts such as imagery and self-talk. These concepts may be introduced through a basic pre- and post-shot routine.

Older players in this stage will be able to stay still for longer periods but are still enthusiastic about moving as they learn. These individuals will require specific direction and feedback and will evaluate their performance as a whole in terms that may be black and white (good or bad).

Encourage individuality and continue to help develop awareness. Children in this stage cannot make corrections to their performance skills unless they understand specifically what is being asked of them. Keeping the focus on one simple aspect will be helpful.

Emphasizing actions and efforts over results will provide a motivating climate to learn. Players are more tuned in to the concept of fairness as well so consistency in rules will minimize conflict. Their ability to think long-term is still quite limited so instructors will want to repeatedly and consistently inform the player how their practice has both short-term and long-term impact.

Developmental age refers to the player's state of physical, mental, emotional and intellectual maturity. In the *Learn To Golf* stage, differences between children will become more apparent and therefore training may start to differ.



GREAT DEBATE—EARLY SPECIALIZATION

ISTVAN BALYI, CANADIAN SPORT FOR LIFE, LTPD EXPERT

If you want your child to become a professional golfer, figure skater, or other high performance athlete, when should they specialize in that one sport?

It's a question that often generates heated discussion among coaches and sport parents. All too often, in most sports, children are pushed to specialize too early.

Too many coaches and parents push them to focus on one sport long before high school in the belief that they will miss out if they don't. The thinking is that they need to "get ahead of the pack" by putting in the extra hours and staying away from other sports.

Meanwhile, the research suggests that specializing too early probably prevents most kids from reaching their full potential in their sport. They might win the district championships for Grade 8 or Grade 10 basketball, but that will be their peak achievement. They won't make the cut for the national team and go on to having success in their given sport internationally at age 19.

It seems counterintuitive. How could specialization reduce your success? It's connected to physical literacy and the need to develop a wide range of physical, mental, and emotional skills within sport. When researchers look at top athletes across a range of sports, the majority of them are distinguished by broad athletic ability from playing a variety of sports as children.

This kind of broad athleticism doesn't happen when kids specialize in one sport from an early age.

(Please note: We haven't even mentioned the problem of overuse injuries to tendons, ligaments, and bone growth plates due to premature specialization. There's enough research on that subject to write a book. Premature specialization is also linked to kids dropping out of sports early.)

Is early specialization wrong for all sports? No. But research shows very few sports where it helps.

Sports and activities such as gymnastics, figure skating, diving, and dancing generally require early specialization. To reach the highest levels of competition, your child needs to start young and spend most of their time practicing that sport or activity.

However, sports such as golf, hockey, soccer, basketball, baseball, and tennis are late specialization sports. If you want your child to have a chance to go to the highest levels in these sports, the evidence suggests they should also play other sports until at least age 14. This is called *sampling* or *early diversification*.

When you feel the urge to make your child specialize early, remember that Steve Nash didn't even start playing basketball until he was 13-years-old. Wayne Gretzky started hockey young, but he also played baseball, lacrosse and tennis into his teens.



KEY STAKEHOLDERS

The groups below outline the key stakeholders that are associated with this stage and what is needed from each to succeed. The help and support from the following stakeholders is vital for complete development:

Schools

- Focus on incorporating golf into physical education curriculum.
 - *Future Links, driven by Acura program*
- Creating links from schools to golf facilities.
 - *Future Links, driven by Acura Get Linked*

Municipalities

- Community centres to deliver *LTPD* compliant junior programming.
 - *Future Links, driven by Acura*
- Golf facilities owned by the municipality should be leaders in junior golf.
 - *National Junior Golf Development Centres*

Parents

- Encourage children to participate in all sports.
- Other sports that build fundamental movement skills that apply to golf.
 - Gymnastics
 - Swimming

Golf Facilities

- Providing access to juniors.
- Offering *LTPD* compliant junior programming.
 - *National Junior Golf Development Centres*
 - *Future Links, driven by Acura*
 - *Future Links, driven by Acura Get Linked*

Golf Associations

- Golf Canada to deliver *LTPD* content and continue to lead research efforts.
- PGA of Canada to promote the *LTPD* Guide to its membership base.
- Provincial Golf Associations to support distribution and execution of the *LTPD* Guide.
- National Golf Course Owners Association to be aware of *LTPD* and promote to its membership base.

Coaches/Instructors

- Complete PGA of Canada *Instructor of Intermediate Golfers*.
- Complete PGA of Canada *Instructor of Beginner Golfers*.
- Complete *Community Golf Coach* training.



For resources relating to this stage and other elements of *LTPD*, visit www.golfcanada.ca/LTPD

TRAJECTORY



INTRODUCTION TO COMPETITION

OBJECTIVE

Continue to reinforce basic and golf fundamental movement skills and build those skills into introductory competitive experiences, ideally now under the guidance of a PGA of Canada professional with *Coach of New Competitor* training.

INTRODUCTION

The *Introduction to Competition* stage is a very significant period of development.

Physiologically, this is a stage when children go through significant rapid growth periods which will affect their coordination.

The focus of this stage is to provide appropriate competitive experiences where winning and results are not the top priority.

In this stage, individuals interested in the sport of golf should consider making it one of their top two sports with their other favourite sport(s) in opposite seasons (i.e. golf in the

spring and summer and another sport such as hockey, basketball, etc. in the late fall and winter).

Establishing appropriate competitive environments where the competition is positioned as a learning experience and designed to encourage and nurture interested players is paramount.

AGES	
M	11 TO 14
F	11 TO 13



INTRODUCTION TO COMPETITION CHECKLIST:

(BALYI, WAY, & HIGGS; 2013)

- Keep sport and physical activity fun.
- Understand the likely challenges of growth and development that will impact this stage and design programming appropriately.
- Continue to develop all fundamental movement skills and teach general, overall sport skills.
- Emphasize flexibility training given the rapid growth of bones, tendons, ligaments and muscles.
- Understand the sport-specific technical skills required according to a golf-specific *technical checklist* and ensure that attention is given to establishing and reinforcing these skills at all times .
- Repetitive unstructured and imaginative play helps to develop, reinforce and master skills.
- Ensure that developing players are involved in building personal endurance and physical literacy.



KEY CONCEPTS

Develop

- Putting, chipping, pitching, full swing, greenside bunker play, green reading and club selection.

Introduce

- Fairway bunkers
- Specialty shots (knock-down, flop shot, etc.)



PERFORMANCE BENCHMARKS

Performance benchmarks are very general at this stage and more of an indication to help coaches communicate to players and families if they are progressing appropriately. Performance benchmarks should be viewed against the recommended golf course length for this stage (appendix 2).

Number of greens hit in regulation

Male

- 5–9

Female

- 5–9

Up-and-down percentage inside 50 yards

Male

- 20–40% from grass
- 20–30% from sand

Female

- 20–40% from grass
- 15–25% from sand

Putting

Male

- >90% from 1–3 ft
- 50–70% from 4–5 ft
- 25–35% from 6–10 ft
- 8–15% from 11–15 ft

Female

- >85% from 1–3 ft
- 50–70% from 4–5 ft
- 25–35% from 6–10 ft
- 8–15% from 11–15 ft



WHERE TO PLAY

As skills are developing quickly and varying greatly in this stage, the length of golf course played should be carefully considered and based on swing/driver ball speed whenever possible. Choosing an appropriate length course will enhance learning and enjoyment. The information below are general guidelines and will assist in tee selection and course set up, however, refer to the chart (see appendix 2) for a more appropriate yardage based on how far an player hits the ball.

- Course length for males: 5,600–6,600 yards
- Course length for females: 5,200–6,000 yards



COACHING/INSTRUCTION

All instructors and coaches undergo PGA of Canada training that is entirely specific to the type of player or athlete they wish to work with. The recommended level for this stage is listed below:

- *Coach of New Competitor*



PRACTICE

Type: Dominated by random practice encouraging decision making in a variety of environments

Duration: 45–90 minutes per session

Volume: 5–7 hours per week of practice



COMPETITION

Players in this stage have a wide variety of developed skill and competitive experience. Relative newcomers to golf can gain skill and confidence through practice, playing and support from a qualified coach who will recommend an appropriate competition schedule with a combination of club, interclub and outside events as set out below.

Total of 7–15 events

9-hole: 1–2 events

18-hole: 3–8 events

36-hole: 2–3 events

54-hole: 1–2 events



EQUIPMENT

It is important that players in this stage have custom-fitted equipment—correctly fit for length, lie, weight, shaft flex, head design and set composition.

Note that depending on growth spurt (PHV) patterns, players in this stage may need to change their equipment during the season if they outgrow it. Players should only have clubs that they outgrow and should never be forced to grow into clubs.



GOLF KNOWLEDGE

- Introduction to *Rules of Golf Level 1*
- Introduction to Golf Handicap Factor
- Introduction to competitive/seasonal planning



PHYSICAL

In general, the vast majority of the player's physical activity will take place outside of golf during this stage of their development. Young players should be vigorously encouraged to play many different sports on a seasonal basis, as well as to try different physical activities (at school, at home, with their friends and parents, as well as through more structured community sport or club programs). Opportunities for unstructured or play activity should (where possible) make up the majority of a young player's physical activity time.

However, the opportunity for more specific (but clearly fundamental, age-appropriate tasks) physical activity experiences can be initiated by golf professionals and support staff. Such programmed activities will involve recognizable elements as well as less obvious, perhaps even surprising components.

Flexibility/suppleness should be central to many activities due to the challenge of growth and development through this stage. Introductory education and strategies concerning nutrition and recovery/regeneration should be evident throughout this stage in an age-appropriate manner.



PSYCHOLOGICAL

In this stage, as players begin to enter more meaningful competitions, it will be important to have a debriefing process in place to allow the individual to learn from every round of golf they play. It is particularly important that the coach help the player draw lessons from negative experiences and consider how they might handle a similar situation differently in the future.

Coaches should help players develop strategies to maintain and nurture confidence, similar to maintenance practice for other aspects of their game. Players should begin to refine and hone their specific mental skill strategies including pre and post-shot routine, focusing/refocusing strategies and calming/arousal regulation. An individualized evaluation of mental skills might be considered and programming should be based on this.

In this early adolescence stage, players will experience physical puberty, emotional tendencies, moodiness, an increased interest in their peers and a greater ability to think in abstract ways. This includes seeing alternative ways of doing tasks and seeing consequences of their actions. They

will slowly want more decision-making involvement and be able to learn through questions and activities which allow them a way to figure out answers for themselves.

Younger players in this group may not clearly understand the meaning of some mental skills with self-talk and relaxation being a bit more challenging than goal setting and imagery. Coaches will also notice early and late developers at this stage, where girls may enter the adolescence process around 10–11 years of age and boys beginning about two years later.

Be aware that players may look more mature than they are able to act. Also at this level, sport specialization is not encouraged. The individual may have a preference of one sport over another, but participation in other activities is beneficial for athletic development. Competition at this level is also important with the emphasis on learning to compete rather than win. For long-term results, 70% of time in sport should be spent in practice. Create competition settings with fun activities focused on participation and learning.



ADDITIONAL ELEMENTS

A continuation of fundamental development coupled with introductory level competition designed to bring together practice and performance experiences.



GOLF CANADA HANDICAP FACTOR

While not as relevant to this stage as later stages, Handicap Factor can still measure a player's scoring ability against different golf courses over a period of time (up to the last 20 scores). For an overview of Handicap Factor Levels for each stage, see the *Junior Competitive Pathway* (p. 12).



GREAT DEBATE—WHAT IS THE DIFFERENCE BETWEEN AN INSTRUCTOR AND A COACH?

GLENN CUNDARI, TECHNICAL DIRECTOR, PGA OF CANADA

This is not a cut-and-dried question. The lines are somewhat blurred. While a coach may also be an instructor, it is unlikely an instructor would be a coach. It is very important to realize that these two vital roles do not belong in separate silos; they are symbiotic, complementary, two of the concentric circles that ensure the complete development of an athlete. Note I say *athlete* and not *golfer*. I will explain the difference shortly.

In general, instructors are often, but not always, technically focused. They understand and can communicate the golf swing. Coaches take a holistic approach. A good analogy would be the general contractor of a clubhouse, for example. They have a long-term vision of what the finished product should look like but they are not necessarily experts in electrical, plumbing, flooring, etc., but they need to know enough about each topic to be able to articulate what is required. They source the best individuals they can find in those areas to ensure the finished structure is the best it can possibly be and satisfies their ultimate vision. The same could be said of the best hockey coaches. They may not be able to help their players skate

faster or shoot better, but they know if they hire the best people to teach those skills, they will accomplish their ultimate goal.

Similarly, golf coaches seek out the best they can find in different fields so their athlete can reach their full potential: Experts in developing athletic abilities, nutrition, course management, risk management, mental skills, and so on. This said, at the younger ages, coaches of new competitors are usually doing it all, leading all of these areas needed to develop athletes.

You have to differentiate between a golfer and an athlete. Instructors lead golfers. Coaches lead athletes. Golfers and athletes lead different lifestyles when it comes to their development in the sport. Instructors can help golfers become the best golfer they can be, to lower their handicap, enjoy golf more or even to win their club championship, for example. Their involvement is specific and usually of a shorter time frame: some sessions on the range, perhaps a playing lesson and possibly some equipment fitting. Coaches will work with athletes over the long-term to ensure they develop into the best athlete they can possibly be through strategic training and tournament planning, focused on their ultimate goal, which may include playing collegiate or professional golf.



KEY STAKEHOLDERS

The groups below outline the key stakeholders that are associated with this stage and what is needed from each to succeed. The help and support from the following stakeholders is vital for complete development:

Junior Tours

- Offer appropriate competitive opportunities to players.
 - Regional Tours
 - *Canadian Junior Golf Association (CJGA)*
 - *Maple Leaf Junior Tour (MJT)*
- Invitationals and inter-club events.
- Junior Orders of Merit

Parents

- Consider making golf one of the top two sports played and practiced.
- Should become familiar with the paths available for competitive golf.

Golf Facilities

- Continue to provide access to juniors.
- Open to hosting junior golf tournaments and inter-club events.
- *National Junior Golf Development Centres.*

Golf Associations

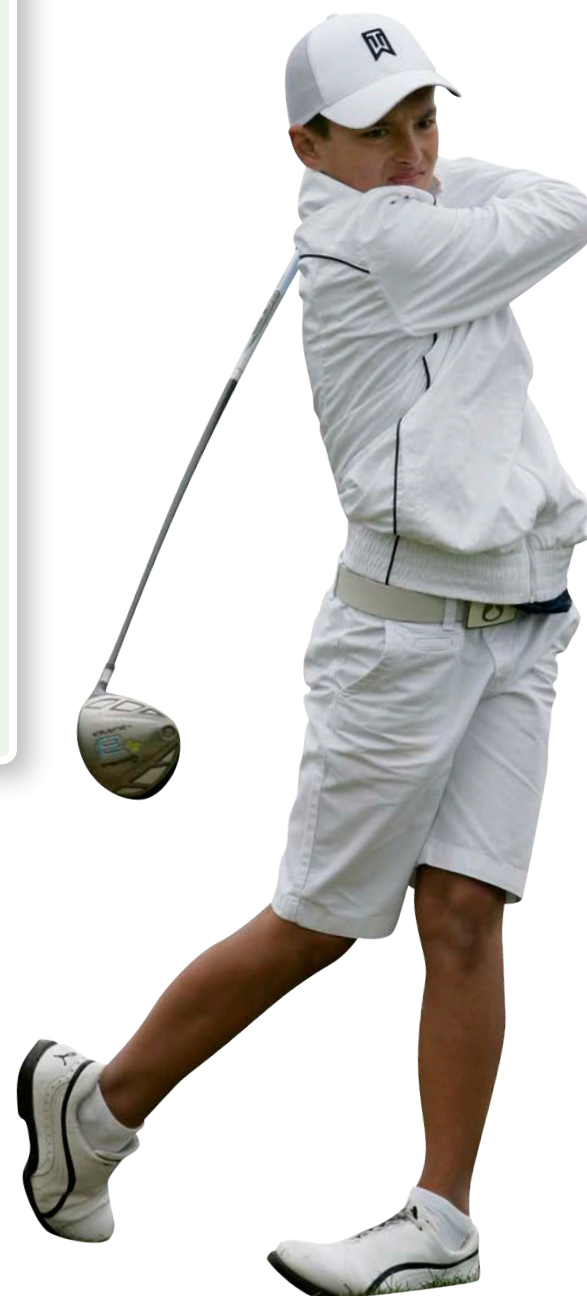
- Golf Canada to deliver *LTPD* content along with respective program development as a result of the work within *LTPD*; continue to lead research efforts.
- PGA of Canada to promote the *LTPD* Guide to its membership base and are engaged in the development of national programming.
- Provincial Golf Associations to support and execute on national programs at the provincial level; run development opportunities for both coaches and players.
- National Golf Course Owners Association to be aware of the *LTPD* Guide and promote to its membership base.

Coaches

- Complete PGA of Canada *Coach of New Competitor.*



For resources relating to this stage and other elements of *LTPD*, visit www.golfcanada.ca/LTPD



TRAJECTORY



LEARN TO COMPETE

AGES	
M	14 TO 17
F	13 TO 16

OBJECTIVE To establish and implement programs to ensure the technical, tactical and supporting ancillary skills of the individual player are improved to meet current and future competitive expectations.

INTRODUCTION At the *Learn to Compete* stage of development, participants begin to be referred to as athletes. This is an important period for establishing a determined and resilient mindset able to withstand the successes and failures associated with competitive golf. This is also the period in which the junior athlete can begin to more accurately measure their skills against peers and adapt accordingly through more detailed annual planning provided by a qualified coach. The focus of this stage should be to assess the strengths and weaknesses of all the individual's golf skills in comparison to his/her peers.



LEARN TO COMPETE CHECKLIST:

(BALYI, WAY, & HIGGS; 2013)

- Understand the challenges of growth and development that will likely impact this stage and design programming appropriately.
- Emphasize flexibility training given the rapid growth of bones, tendons, ligaments and muscles.
- Understand the sport-specific technical skills required according to a golf-specific *technical checklist* and ensure that attention is given to establishing and reinforcing these skills at all times.
- Use and develop a wide variety of tactics in training so that the athlete can implement them during competition.
- Train athletes in daily competitive situations in the form of competitive practices, games, drills and challenges.
- Utilize periodization strategies to effectively manage the athlete's annual schedule.
- Introduce *approach-to-major-competition* strategies (with major competitions defined as stage specific, i.e. National Junior Championship).
- Utilize and consider resources outside of what the traditional golf facility might consider ancillary capacities and supporting elements to support the athlete's progress. For example, ensuring school is supportive of commitments required by golf; ensuring that nutritional factors are addressed so that the young athlete has the fuel to train effectively.
- Ensure the athlete is involved in a range of physical activities and sports so as to continue to develop a sound athletic competency, including the establishment of a foundational endurance level or *physical work capacity*.



KEY CONCEPTS

- Centeredness of ball contact.
- Learning basic concepts surrounding ball flight.
- Concepts of distance control for clubs.
- Awareness of changing conditions and their effect on performance.
- Specialty shots (i.e. uphill, downhill, knock-down).
- Adding shot variety to basic skills learned.
- High level putting skills (i.e. starting the ball on line and speed control).
- Implementing basic tactics and strategies on a variety of courses inclusive of yardage and charting skills.
- Introduction of post-round reflection and stat collection.



WHERE TO PLAY

Choosing an appropriate length course is important in order to enhance the athlete's learning and enjoyment. See *appendix 2 for Golf Course Length Recommendation chart*.

- Length for males: 6,500–7,000 yards
 - Course rating of 71
- Length for females: 5,600–6,000 yards
 - Course rating of 73



PERFORMANCE BENCHMARKS

Performance benchmarks at this stage become the primary means of assessment for coaches to measure athlete performance.

MALE

Ball Speed
+130 mph

Green in Regulation
• 6–10

Up-and-down percentage inside 50 yards
• 30–40% from grass
• 20–30% from sand

Putting
• >90% from 1–3 ft
• 60-75% from 4–5 ft
• 30-40% from 6–10 ft
• 10-20% from 11–15 ft

TrackMan combine score of 68 plus

FEMALE

Ball Speed
+130 mph

Green in Regulation
• 6–10

Up-and-down percentage inside 50 yards
• 35–45% from grass
• 20–30% from sand

Putting
• 87% from 1–3 ft
• 60-70% from 4–5 ft
• 30-35% from 6–10 ft
• 10-20% from 11–15 ft

TrackMan combine score of 66 plus



COACHING/INSTRUCTION

All instructors and coaches undergo PGA of Canada training that is entirely specific to the type of player or athlete they wish to work with. The recommended level for this stage is listed below:

- *Coach of Developing Competitor*
- *Coach of New Competitor*



PRACTICE

Individualized practice plans inclusive of random/ blocked practice modeling competition

- 32–42 weeks per year (indoor and outdoor practice included).
- 30–40 training hours per week (inclusive of on-and-off course training).
- Outdoor training week—two to three, 18-hole rounds plus two, 9-hole rounds (max. 72 holes).
- Practice sessions are 2–3 hours with varied focus as well as rest and recovery.
- Distribution of practice (note: this should be reviewed between the coach and athlete to ensure proper focus based on personal needs):
 - 30% putting
 - 30% short game
 - 40% long game



COMPETITION

Working with a qualified coach, athletes have now been introduced to a yearly plan that will include a competition schedule with a combination of home club and inter-club events as well as a larger number of competitions outside of the athlete's home club. A general guideline is set out below and for more details see the Junior Competitive Pathway on p. 12).

- 18-hole: 4-5 events
- 36-hole: 5-6 events
- 54-hole: 4-6 events
- 72 hole: 2-3 events



EQUIPMENT

Custom fitting should be further developed at this stage—otherwise fundamentals, technique and performance will likely be compromised in this stage and in future stages.



GOLF KNOWLEDGE

- Basic understanding of tournament etiquette.
- Develop an understanding of NCAA/CIS programs including recruitment policies and procedures.
- More detailed understanding of the *Rules of Golf*.
- Introduce basic understanding and impact of performance enhancing supplements.
- Introduction of stats collection (i.e. *Shot by Shot*).
- Introduction of course charting and mapping.



PHYSICAL

Through this stage in their development, athletes should be introduced to the concept of well-designed annual planning coupled with a periodic critical review process. Given the demands upon their time and the impact of growth and development, logical plans or roadmaps provide a basis for decisions and programming.

Since this stage typically involves significant physical and psychological challenges, it is important that the physical conditioning program reflects and responds to the individual athlete's situation. Time must be given to establishing a strong physical foundation as the athlete matures. The physical conditioning program will have to involve both generic and more golf-specific elements, although the overall thematic will still be on developing the overall athlete. In particular, flexibility/suppleness and the ability to deal effectively with high rotational velocities will require continual work as the athlete grows and develops.

Those experts involved in the *Learn to Compete* stage will need to monitor for possible overuse symptoms that can become prevalent throughout this stage. Education and strategies concerning nutrition and recovery/regeneration should be incorporated throughout this stage in an age-appropriate manner.





PSYCHOLOGICAL

In this stage, coaches might consider having the athlete work with a specialist in sport psychology/mental training. An individualized assessment should be completed to help the athlete understand their tendencies, implications for play and areas in which to develop or improve. Basic mental skills should continue to be practiced and technology might be considered to help develop accountability around skill development (i.e. apps, portable biofeedback, etc.).

The athlete should begin to have a plan for pre-game preparation as well as an on-course game plan. This should include the identification of potential distractions and a plan for refocusing. Pre- and post-shot routines should be well-rehearsed and woven seamlessly into their game. The athlete should be purposeful about practicing mental

skills strategies as a component of their regular practice sessions both on the range and on the golf course. A regular debriefing process should be implemented and all key stakeholders involved with the athlete should be working collaboratively towards a specific performance goal.

During this stage athletes become more engaged in competition with their peers which can lead to an over-emphasis on outcomes and winning. This can be a positive motivation for some but if the individual is not successful, it can lead to poor self-esteem, low confidence and a fear of failure. Coaches can plan for successful experiences by keeping the focus on learning as well as those things over which the athlete has control (such as applying and refining physical and mental skills). What you choose to focus on and talk about with the athlete will have an impact on what they feel is important over time.

Mental skills training can be purposefully introduced to help the athlete with preparation for performance and coping with challenges while practicing and competing. Negative experiences should not be conceptualized as failures, but rather opportunities to learn. Pre-competition or practice routines are encouraged to allow the golfer to be focused and energized for the lessons or activity.

In preparing explanations for the athlete, be brief and precise. Try to give specific instructions, for example, saying “relax just like with your belly breaths” instead of simply, “relax”. This will help the athlete connect to the exercises for more value. Social interaction will also be an important part of participation in golf at this age, so allowing time and activities that promote the development of positive relationships will add to the overall learning experience.



GREAT DEBATE—CHOOSING THE RIGHT SCHOOL

TRISTAN MULLALLY, CANADIAN WOMEN'S NATIONAL TEAM COACH

Young players who are coming out of provincial or national programs and looking to continue in university have to be aware that their decision should not be exclusively based on the college coaching staff. For the most part, players have had a technical coach and they expect that their college coaches will also be experts in this field. Many college coaches perform the duties of a team manager and have no formal qualification in coaching other than perhaps coming up through the system themselves. Their job is to structure practice, support development either through their own expertise or outsourcing in the local area and to organize the day-to-day running of the team. In my experience, too many players choose the school they want to attend based on their opening encounters with the coach. Instead, they should look at four key areas, with the coach being at the bottom of that list because at any point in time the coach may leave to take up another posting.

My priority list would start with looking at what kind of facilities the school has to offer. Players need a good facility to practice and advance their game regardless of technical input. Second, will they get the level of competition that will challenge them to reach their potential? Is the school in a conference that plays a competitive schedule and moves around the country? Third, the actual schooling part is very important. I think very few

players realize that there is a lot of work in balancing school and athletic responsibilities. Players need to understand that when they choose courses, they should be looking at their long-term future, based on realistic expectations of where their game may take them.

And finally, there is the coaching staff. Players need a coach that will support them as they try to move forward. There are quality coaches out there but players have to do their research. They should visit several schools and check out their practice facilities, have a dialogue with the coaches to see what their philosophies are, look at the team and class schedules and how they will get around campus. They should ask themselves—will this environment help me get better?

Players always have options—choosing to go to a U.S. school or staying here in Canada is a big decision and should be based on personal needs. If getting a good education is your priority, and golf is currently secondary, then maybe staying in Canada is a smart move. Players will be close to their coach, their family, and get lots of support. If a player wants to be a competitive golfer, with the goal of eventually turning professional, they most likely have to go where the weather allows you to play full-time and where the level of competition is higher—and that means going to the U.S. Players should discuss their potential choices with their parents and provincial or national team coaches. It is an extremely important decision.

Progress in physical and mental skills will vary more at this stage due to growth spurts. Physical and emotional maturity may not develop at the same time so instructors will see a wide range of skills from athletes of different ages and genders. Support and encouragement based on each individual's growth will help maintain motivation and self-confidence as well as coping with success and failures. Be sure to reflect on what the athlete has learned—this will help them apply their mental skills during practices and competitions.



GOLF CANADA HANDICAP FACTOR

Handicap Factor becomes more relevant at this stage as it starts to provide a more accurate measure of a player's scoring ability against different golf courses over a period of time (up to a player's last 20 scores). For an overview of Handicap Factor levels for each stage, see the *Junior Competitive Pathway*

- Male average is 11.0
 - Top 10% = 0.1
- Female average is 16.0
 - Top 10% = 0.8



For resources relating to this stage and other elements of *LTPD*, visit www.golfcanada.ca/LTPD



KEY STAKEHOLDERS

The groups below outline the key stakeholders that are associated with the Learn to Compete stage and what is needed from each to succeed. The help and support from the following stakeholders is vital for complete development:

Schools

- Preparation for transition to post-secondary golf programs.
- Future Links, driven by Acura (High School program).

Provincial Golf Associations

- Awareness of training opportunities.
- Identification of appropriately trained and certified coaches available to support.

Players

- Implementation of talent identification initiatives.
- Order of Merit rankings.

National Organizations

- Awareness of National Team High Performance programs.
- Implementation of talent identification initiatives.
- Team Canada selection criteria.
- National Order of Merit.
- Create awareness within their membership of programs and initiatives available to support their coach development.

Coaches

- Complete PGA of Canada *Coach of Developing Competitor*.
- Complete PGA of Canada *Coach of New Competitor*.

Junior Tours

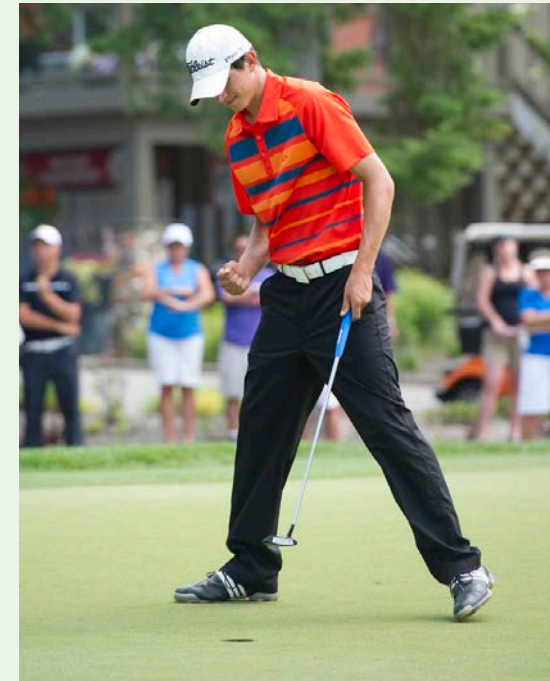
- Offer appropriate competitive opportunities" to players.
 - Regional Tours
 - *Canadian Junior Golf Association (CJGA)*
 - *Maple Leaf Junior Tour (MJT)*
 - Junior Orders of Merit

Parents

- Consider making golf one of the top two sports played/practiced.
- Become familiar with the competitive pathway available for competitive golf.
- Become aware of post secondary options available to their sons/daughters both in Canada and the U.S.

Golf Facilities

- Continue to provide access to juniors.
- Consider hosting junior golf tournaments and interclub events.
- *National Junior Golf Development Centres*.



TRAJECTORY



TRAIN TO COMPETE

OBJECTIVE Reinforce, refine and optimize technical, tactical and ancillary skills so that competitive performance of the athlete meets current and future expectations.

INTRODUCTION The *Train to Compete* stage focuses on optimizing golf skills in relation to competitive expectations and benchmarks. Athletes should receive tailored annual plans that address their shortcomings as well as future expectations. A one-sport focus towards golf is recommended to achieve maximum results.

AGES	
M	17 TO 22
F	16 TO 19



TRAIN TO COMPETE CHECKLIST:

(BALYI, WAY, & HIGGS; 2013)

- Teach players to compete under any kind of condition or circumstance (“Performance on Demand”, Norris, 2000).
- Training is year-round with high specificity.
- Training emphasizes the application of basic and sport specific skills under a variety of competition-like conditions during daily training.
- Optimize all training, competition and recovery programs.
- Individually tailor physical conditioning programs; recovery programs; psychological preparation; and technical development to a greater degree.
- Utilize periodization strategies to effectively manage the athlete’s annual and multi-year schedule.
- Establish, monitor and optimize a taper or approach-to-major-competition strategy.



PERFORMANCE BENCHMARKS

Performance benchmarks at this stage become the primary means of assessment for coaches to measure athlete performance.

MALE

Ball Speed
+150 mph

Greens in Regulation
• 10–12

Up-and-down percentage inside 50 yards
• 45–60% from grass
• 35–45% from sand

Putting
• >95% from 1–3 ft
• 70–75% from 4–5 ft
• 40–45% from 6–10 ft
• 15–25% from 11–15 ft

TrackMan Combine score of 73 plus

FEMALE

Ball Speed
+130 mph

Greens in Regulation
• 10–12

Up-and-down percentage inside 50 yards
• 45–60% from grass
• 30–40% from sand

Putting
• >95% from 1–3 ft
• 70–75% from 4–5 ft
• 35–45% from 6–10 ft
• 15–25% from 11–15 ft

TrackMan Combine score of 72 plus



KEY CONCEPTS

- Centeredness of ball contact—and thorough understanding of the impact conditions and related ball flights.
- Accuracy and distance control with all clubs.
- Detailed knowledge of escape shot techniques (fades, draws, ball position, body alignment, clubface angle).
- Detailed knowledge of trouble shot techniques (punch shots, low shots, high shots, club selection).
- Detailed knowledge of fairway bunker technique, club selection, quiet legs, ball position, grip.



WHERE TO PLAY

- Length for males: 6,700–7,200 yards
 - Course rating of 75
- Length for females: 5,900–6,400 yards
 - Course rating of 73
- See appendix 2 for Golf Course Length Recommendation chart.



COACHING/INSTRUCTION

- PGA of Canada—*Coach of Developing Competitor*
- Identification of support team outside of golf specialist (i.e. mental skills, strength and conditioning, physiotherapist, nutritionist and biomechanist)
- Players beginning to take ownership and responsibility for certain facets of development



PRACTICE

- Individualized practice plans inclusive of random/ blocked practice modeling competition.
- 32–42 weeks per year (indoor and outdoor practice included).
- 30–40 total training hours per week (inclusive of on and off course training).
- Training week—two to three 18-hole rounds.
 - Practice sessions are three to four hours with varied focus and include rest and recovery breaks.
 - Distribution of practice (note: this should be reviewed between the coach and athlete to ensure proper focus based on personal needs):
 - 40% putting
 - 20% short game
 - 40% long game



AMATEUR SCHEDULE

- Sample competition week (based on four-round amateur event)
 - Day 1** – arrive at venue; 2 hours of practice at event location
 - Day 2** – warm up 1.5 hours; play 18 holes; 1–2 hours of practice
 - Day 3** – warm up 1.5 hours; play 9 holes (optional); 1–2 hours of practice (course specific)
 - Day 4** – warm up 1.5 hours; 18 holes of competition; post round review; 1 hour minimum practice (dependent on player needs)
 - Day 5** – warm up 1.5 hours; 18 holes of competition; post-round review; 1 hour minimum practice (dependent on player needs)
 - Day 6** – warm up 1.5 hrs; 18 holes of competition; post round review; 1 hour minimum practice (dependent on player needs)
 - Day 7** – warm up 1.5 hours; 18 holes of competition; post competition review; travel



COMPETITION

- Personalized competition plans based on principles of periodization.
- Ongoing analysis and reflection of importance.
- Annual review of performance promoting self reflection.
- 15–25 (multi-round) events per year.



EQUIPMENT

- Annual review and refinement of custom fitted equipment inclusive of balls.



GOLF KNOWLEDGE

- Introduction to travel, financial planning and media training.
- Long-term planning—full time golf focus vs. NCAA/CIS post-secondary (what is the best environment for each individual to develop).
- Introduction to the use of a caddie and their responsibilities.
- Introduce education on the role of agencies and management companies.
- Full understanding of the *Rules of the Golf* as well as anti-doping regulations.
- Consistent input of statistics for analysis (i.e. *Shot by Shot*).
- Advanced course charting and mapping skills.



PHYSICAL

A well-designed and individualized annual plan for the athlete that is continually reviewed should provide the basis for decisions and programming.

Despite the increased playing volume (both practice and competition), time must be given to establishing a strong physical foundation as the athlete matures. Specialized conditioning personnel working in conjunction with the technical golf coach and other personnel (i.e. physical therapists) should oversee this stage including establishing the program and guidance for conditioning/physical recovery when the athlete is away from their home venue.

A comprehensive program should encompass both traditional and established training methodologies. The program should also allow for golf-specific and innovative elements so as to ensure an optimal result for the athlete. The athlete should become accustomed to utilizing experts from various areas (as required) in order to achieve training and competition objectives. In addition, the ancillary aspects of nutrition and recovery/regeneration should be well thought out, implemented and reviewed at this stage by utilizing experts in these areas in a coordinated fashion.



PSYCHOLOGICAL

The *Train to Compete* stage is an opportunity for the athlete to continue honing his/her mental game. Mental preparation should be a purposeful component of their preparation. The preparation should be individualized and strategies should be in place both to maintain elements such as confidence, but also continually develop skills such as calming and refocus. The athlete should have a well-established competitive and pre-competitive routine and all key stakeholders who are a part of this athlete's support team should be aware of this information.

The athlete at this stage learns about performing to his/her potential and the things he/she can do to manage challenges that arise along the way. Some core strategies to have as a component of their training plan include: process goals; pre and post-shot routine; calming strategies; focusing

and refocusing strategies and a standard debriefing process. The mental strategies and preparation should be fluid – developing and changing as the athlete grows and evolves.

The *Learn to Compete* and *Train to Compete* stages are often very similar due to a wide range of physical and mental development. For females, individuals who enter puberty earlier than their peers fall behind late developers and tend to drop out. For males, this trend is reversed. Early development such as getting bigger and stronger often leads to success where late developers may tend to drop out. If they have stayed in sport, late developers eventually catch-up and may pass early developers in physical development.

In the *Train to Compete* stage, athletes are more engaged in competition with their peers, which can lead to an over-emphasis on outcomes and winning. This can be a positive motivation for

some individuals but if they are not successful, it can lead to poor self-esteem, low confidence and a fear of failure. Confidence will be built through work, effort, practice and planning, not solely on results. Coaches can plan for successful experiences by keeping the focus on learning while applying and refining physical and mental skills. Physical and emotional maturity may not develop at the same time so coaches will see a wide range of skills from athletes of different ages and genders.

Support and encouragement based on each individual's growth will help maintain motivation, self-confidence and coping with success and failures. Mental skills training can be purposefully introduced to help with preparation for performance and coping with challenges while practicing and competing. Be sure to have the athlete reflect on their learning so they can connect the mental skills with training and competition. Seek out sport



GREAT DEBATE—SHOULD I GO TO COLLEGE OR TURN PRO?

DEREK INGRAM, CANADIAN MEN'S NATIONAL TEAM COACH

As the former women's Team Canada coach and now Team Canada men's coach, I have had this discussion many times over the years. No doubt, it is a reality check for any promising young golfer, but you have to look hard at the facts.

In reality, it is a rare occurrence when a young man or woman has the realistic choice of turning pro versus going to college or university and continuing their development there. It is every five or 10 or 15 years when a player is ready, both from the game and psychological standpoints, where it is right for them to turn professional. For those rare individuals, that is the right choice. But for the vast majority, continuing on to college is the way to go to mature, gain experience, travel, play against high-level competition to see how they stack up against their peers.

In college, you gain experience in many areas, in addition to honing your game and maturing. You do your own laundry, you have to have the discipline to attend class, you learn time management, living away from home, while still within a supportive framework. You have the support of your college coach, your teammates, your provincial and national golf associations. It's far different than being on your own on tour.

To me, the major factor is the World Amateur Golf Rankings. If you are in the top 10 or 20 in the world rankings, then the door is potentially open to turning professional. I always recommend looking at the world rankings and what I call *acceptable results*, that is, great finishes at major events, like the Canadian and U.S. Amateurs, the World Amateur and at events where you are competing against professionals. Good finishes at events like that show you that, hey, I am getting close and maybe I should consider turning professional.

To be blunt, you have to be a winner. You have to win at the junior and amateur levels, against the best competition. Not just locally or provincially, but nationally and internationally. Otherwise, what are your chances of winning as a pro?

Turning pro is not the right thing for everyone. Being a great amateur and getting a good education can help you in business throughout your chosen career. You get to play golf, recreationally, for business, and competitively at a high level, spend time with your family and make a good living.

psychology resources to enhance the athlete's mental training program.

Social interaction will also be an important element at this age so allowing time and activities that promote the development of positive relationships will add to the overall learning experience. Females will seek closer relationships than males at this stage. Athletes will be more capable to express feelings, think more abstractly and increase their demonstration for independence. They will be apt to contribute to decision-making and express thoughts that may differ from others.

Offer choices and options in training as well as “what if” scenarios. The teen brain is rapidly changing and the athlete's executive functioning (self-control; judgment; thought organization; consequences and actions; and moods) are developing. Their ability to visualize future outcomes is appropriate at this age.

KEY STAKEHOLDERS

The groups below outline the key stakeholders that are associated with the Train to Compete stage and what is needed from each to succeed. The help and support from the following stakeholders is vital for complete development:

Provincial Golf Associations

- Offering appropriate training opportunities.
- Order of Merit rankings maintained.

National Organizations

- Offering National Team High Performance programs.
- Talent identification.
- Tracking and profiling performance of players.
- Team Canada selection criteria.
- Providing international training and competition to players.
- Establish National Order of Merit.

Parents

- Seeking education on both paths—university golf vs. full time golf.
- Awareness of commitment required to be successful.

Golf Facilities

- Hosting appropriate competitions.
- Awareness and access of appropriate training facilities required by players at this level.
- *National Junior Golf Development Centres.*

Coaches

- Complete PGA of Canada *Coach of Developing Competitors.*

Schools

- Preparation for transition to post-secondary golf programs.
- Provide access to appropriate training facilities and offer appropriate competitive schedule for players.
- Work with National Team program to ensure appropriate support is available to players year-round.



TRANSITIONING TO THE COMPETE TO WIN STAGE

Although there are no guidelines of exactly what needs to be achieved by an athlete to have success as a professional, the following results outline what professional golfers have achieved as amateurs before they made a successful transition to the *Compete to Win* stage:

- Minimum tournament handicap of +3.0 or better.
- Inside the top 100 World Amateur Golf Ranking (WAGR) for boys.
- Inside the top 50 World Amateur Golf Ranking (WAGR) for girls.
- Win or several (2–4) top 10 finishes in ‘A’ ranked WAGR events.
- Wins and several (4–6) top 5 finishes in ‘B’ to ‘D’ ranked WAGR events.

- Excelling at lower level amateur competitions like provincial amateurs or regional events.
- A top 20 finish in a PGA TOUR Canada event for males.
- A top 40 finish in a Korn Ferry Tour event for males.
- A top 20 Symetra Tour event finish for females.
- A top 60 (or making the cut) finish in a PGA TOUR or LPGA Tour event.

A blend of several of the above guidelines can indicate when an amateur is ready to turn professional. Having a tournament handicap of +3 or better is the steadiest measurement of success and should be referred to often.



GOLF CANADA HANDICAP FACTOR

Males:

- 0 to +2

Females:

- 1 to +2



For resources relating to this stage and other elements of *LTPD*, visit www.golfcanada.ca/LTPD



TRAJECTORY

LANAD IN
O PFI

RBC
NAD
CDE

Shaw

COMPETE TO WIN

OBJECTIVE Utilize specific planning and programming to achieve identified training and competition outcomes, targets and goals.

INTRODUCTION The *Compete to Win* stage should focus on the athlete carrying out the finite details identified in the annual training/competition plan. The athlete should be competing in world class events and measuring their performance accordingly through the World Amateur Golf Rankings and or World Golf Rankings/Rolex Women's World Golf Rankings. Achieving competitive excellence at the highest level requires the full dedication of the athlete towards mastering every skill set of golf.

AGES	
M	22+
F	19+



COMPETE TO WIN CHECKLIST:

(BALYI, WAY, & HIGGS; 2013)

- ☐ Train players to peak for major competitions.
- ☐ Prepare players for the challenge of an extensive competition, travel and professional life schedule.
- ☐ Use minor competitions to rehearse strategies for major competitions.
- ☐ Ensure that training is characterized by high intensity and high volume (process to be updated annually as part of periodization).
- ☐ Incorporate frequent preventative breaks to ensure physical and mental recovery and regeneration.
- ☐ Utilize periodization strategies to effectively manage the athlete's annual and multi-year schedule.
- ☐ Maximize ancillary capacities and supporting elements to improve training, competition and recovery/regeneration activities.



PERFORMANCE BENCHMARKS

Performance benchmarks at this stage become the primary means of assessment for coaches to measure athlete performance.

MALE

Ball Speed
+160 mph

Greens in Regulation
• 12–14

Up-and-down percentage inside 50 yards
• 55–65% from grass
• 40–50% from sand

Putting
• >96% from 1–3 ft
• 75–80% from 4–5 ft
• 45–50% from 6–10 ft
• 20–30% from 11–15 ft

TrackMan Combine score of 80 plus

FEMALE

Ball Speed
+140 mph

Greens in Regulation
• 11–14

Up-and-down percentage inside 50 yards
• 55–65% from grass
• 35–45% from sand

Putting
• >96% from 1–3 ft
• 70–80% from 4–5 ft
• 40–50% from 6–10 ft
• 20–30% from 11–15 ft

TrackMan Combine score of 78 plus



KEY CONCEPTS

- Centeredness of ball contact.
- Controlling of the golf ball—ability to change trajectory/curvature on command.
- Accuracy and distance control with all clubs.
- Heightened awareness with strategies to adapt to changing conditions.
- Specific event-based situational/simulation training that utilizes a variety of short game shots to achieve outcome in varying conditions.
- Ability to consistently apply learned putting skills to a variety of green condition types under competition conditions.
- Ability to successfully adapt the pre-determined game plan based on real time.
- Solid understanding of impact conditions and related ball flights.
- Thorough understanding of personal tendencies (i.e. reasons for successes and failures).



WHERE TO PLAY

- Length for males: 6,900–7,400 yards
 - Course rating of 75
- Length for females: 6,200–6,500 yards
 - Course rating of 75
- See appendix 2 for Golf Course Length Recommendation chart



COACHING/INSTRUCTION

- PGA of Canada—*Coach of Developing Competitors*
- Integrated support team led by coach—based on player gap analysis
- Players have sense of independence regarding training program



PRACTICE

Highly individualized practice plans inclusive of random/blocked practice modeling competition.

- 44–48 weeks per year (not consecutive).
- 35–45 total training hours per week (inclusive of on and off course training).
- Training week: 3–4 18 hole rounds.
- Practice sessions are 4-6 hours with varied focus and rest and recovery.
- Distribution of practice—structure based on individual needs.



COMPETITION

- Highly personalized competition plans based on principles of periodization.
- Ongoing analysis and reflection of performance.
- 360 degree review engaging all facets of “support team”.
- Amateur: 13–20 high multi-round events per year.
- Professional: 20–35 multi-round events per year.



EQUIPMENT

- Ongoing review and refinement of custom fitted equipment inclusive of balls, optimized through scientific testing.



GOLF KNOWLEDGE

- Integration of agency support for professional planning is suggested.
- Travel and financial management as well as media training.
- Corporate partners.
- Professional caddie selection and use.
- Look into requirements for a caddie.
- Full understanding of the *Rules of Golf* as well as anti-doping regulations.
- Consistent use of statistics collection (i.e. *Shot by Shot*).
- Mastering course charting and mapping.



PHYSICAL

At this stage, the athlete should have a solid base of function, strength and power. The overall focus of the athlete should be centred upon refining technique to optimize efficiency both on and off the golf course. Strategies to ensure optimal recovery and regeneration along with a proactive health and well-being behavior set are important for the athlete to know and implement consistently.

The athlete's *expert support personnel* (team of people utilized consistently or from time-to-time) should be well-established and have a specific understanding of the athlete's annual plan and training/competition demands. A significant portion of this program should focus on injury prevention as well as building and maintaining a long-term golf body required for a successful professional career. Athletes must repeat this process annually with the concept of periodization as the main focus.

PSYCHOLOGICAL

In the *Compete to Win* stage, the athlete should have a good feel for the mental skill strategies that they find beneficial as well as understanding the areas where they want to continue to grow and develop. The athlete should have a pre-existing relationship with a specialist in this area as well as a well-developed team working purposefully towards the achievement of their goals (this program needs to be highly personalized and specific to the athlete). A meeting should take place at the beginning of each season in order to ensure all parties are on the same page while outlining specific mechanisms of communication (including a regular debriefing process which may be done with the golf coach).

Given the level of competition, it is important to be purposeful about nurturing fun in their game. The use of technology to facilitate skill develop-

ment should be strongly considered and regular refinement and purposeful practice of basic skills (i.e. calming strategies) should take place. Game-plans, on-course focusing strategies, and pre and post-shot routines should be reviewed as needed. Service provision should be individualized at this point and driven by the athlete.

Athletes at this level will have greater accurate self descriptions, awareness and self-control. This development is not automatic and varies based on parental, social, environmental and cultural experiences. Generally, the brain has reached its adult size but continues to develop neurologically. Athletes can understand the technical requirements of golf but coaches should be sure that the athlete understands why they are doing certain things. This will help the athlete develop a stronger intrinsic motivation and a connection to practice as well performance in competition and confidence.



Critical thinking becomes more established giving athletes more decision making capabilities. While athletes can rationalize like an adult, under stress, they may not be practiced in coping and could be susceptible to making inappropriate decisions. Discussions to learn and explore options will help the athlete create decision making plans that improve performance. Allowing athletes to provide more input on their performance and learning with minimal coach feedback provides them the opportunity to think for themselves.

It is helpful to have athletes reflect on their learnings in order to connect to the mental skills for training and competition. Be aware that the rate of improvement can decline as skills require more fine-tuning which can lead to frustration. Coaches can emphasize all improvements including the fun and enjoyment of practice and competitions to help support motivation. Athletes can become more specialized at this level which includes increased training volumes and time commitments. Encouraging participation in non-sport activities is essential for balance.

Because maturity levels vary, coaches may find athletes are ready to assume responsibilities and accept the consequences of their actions. Athletes will be capable of self-analyzing as well as correcting and refining skills. Well-developed information processing skills improve the athlete's ability to visualize verbal instructions. Winning becomes the major objective so it is important to emphasize goal setting in order to give definite direction, support and purpose to the athlete's overall program.



GOLF CANADA HANDICAP FACTOR

Males:

- +3 to +6

Females:

- +3 to +6



KEY STAKEHOLDERS

The groups below outline the key stakeholders that are associated with the Compete to Win stage and what is needed from each to succeed. The help and support from the following stakeholders is vital for complete development:

Provincial Sport Organizations

- Offer appropriate training opportunities.
- Order of Merit rankings.

National Sport Organizations

- Providing National Team program for identified players.
- Provide National Order of Merit.
- Offer support through the transition from amateur golf to professional golf.
- Provide access to world class coaching and sport science support for identified players.
- Provide appropriate competitive experiences both internationally and domestically.

Parents

- Purposeful education on the needs of the player at this stage both from a performance perspective and a financial perspective.

Golf Facilities

- Access to world-class facilities for training and playing.
- Ability to host competitions for players at this level.

- Explore ways of engaging membership to assist aspiring players off set the significant expenses involved with competing at this level.

Professional Tours

- Offer exemptions to deserving players (both amateurs in their final year prior to turning professional and young professionals).
- Support to young professionals in ancillary development around *life skills management* as a professional.

Coaches

- Engage/include various subject experts to assist in formulating the performance plan for the individual players the coach is working with.
- Ensure to engage in appropriate training and certification to work with players at this stage— *Coach of Developing Competitor*.
- Ensure support is provided to player both in the training environment and competition environment.



PROFESSIONAL SCHEDULE

This is a sample week for a professional golfer. Note that every event is different and schedules may vary accordingly.

Mon – Arrival day—practice when available

Tues – 1.5 hour warm up; 9/18 hole practice; 2 hours practice

Wed – 1.5 hour warm up and Pro-Am or 9/18 hole practice round

Thurs – 1.5 hour warm up; 18 holes of competition; 1.5 hour post round practice based on performance review (note: supplemental physical training/recovery to be included)

Fri – 1.5 hour warm up; 18 holes of competition; 1.5 hour post round practice based on performance review

Sat – 1.5 hour warm up; 18 holes of competition; 1.5 hour post round practice based on performance review

Sun – 1.5 hour warm up; 18 holes of competition; travel



For resources relating to this stage and other elements of *LTPD*, visit www.golfcanada.ca/LTPD



TRAJECTORY

GOLF FOR LIFE

OBJECTIVE Regardless of where a golfer sits on the player development trajectory, golf is the ultimate sport of a lifetime. Whether you win or lose, play your first round or sink a final putt to win a championship, remember that golf is a sport to have fun and enjoy.

INTRODUCTION *Golf For Life* embodies golf as a sport that general enthusiasts, active players and competitive athletes can enjoy over the course of a lifetime.

At any point along the player development trajectory, all participants—from beginners learning the game for the first time to high performance athletes going for gold—can enjoy the health, social and recreational benefits inherent in the game.

Within the *LTPD* Trajectory path outlined early on in the guide, any golfer can step outside of any of the seven respective stages of player development and enjoy golf for what it is—a healthy, safe sport that brings friends and families together in communities across Canada.

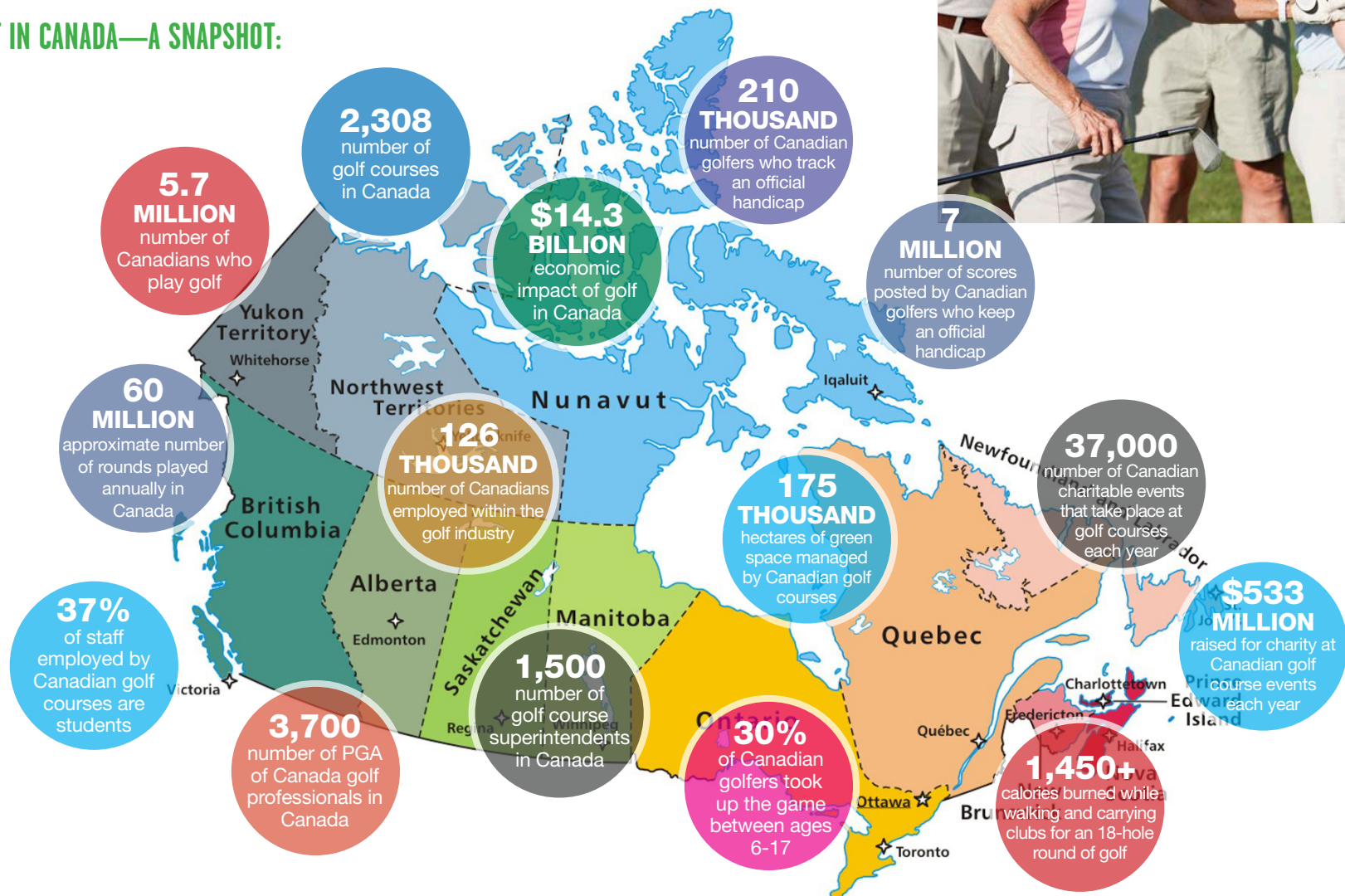
WHAT IS GOLF FOR LIFE ALL ABOUT?

Golf is among the world's oldest and most enjoyed sporting activities. Enthusiasts of the sport range from toddlers to seniors including millions of participants of varying interest and skill sets. Every golfer, regardless of age, aptitude or competitive skill represents *Golf For Life*.

- Children and new enthusiasts
- Recreational golfers
- Club members
- Competitive players
- Charity golf event participants
- Driving range, practice facility or mini-putt patrons
- Families and friends of all ages



GOLF IN CANADA—A SNAPSHOT:





GOLFERS BY THE NUMBERS

Avid (25 + rounds per year)	684,000	12%
Frequent (9 to 24 rounds per year)	798,000	14%
Occasional (3 to 8 rounds per year)	2,052,000	36%
Infrequent (1 to 2 rounds per year)	2,166,000	38%
Total Golfer Population	5,700,000	

Club members vs. public golfers:

Club Members	16%
Public Players	84%

Source: 2012 Canadian Golf Consumer Behaviour Study



GOLF FOR LIFE CHECKLIST:

- Have fun.
- Introduce a new golfer to the game—they will thank you for it.
- Take some lessons—every golfer could use the help of a trained PGA of Canada professional
- Play in a charity golf event—you will be glad you did.
- Learn to golf as a family.
- Embrace 9-hole rounds—sometimes life is too busy for a full 18.
- Practice makes perfect—hone your skills on the driving range or the putting green.
- Try new games or scoring formats like match play or stableford scoring.
- Tee it Forward—don't make the game more challenging than it needs to be.
- Get fitted for proper equipment that meets your physical makeup and abilities.
- Relax, it's just a game—enjoy it.

THE GAME FOR ALL AGES

While many sports are geared towards enthusiasts of a certain age or physical demographic, golf is a sport for young and old alike. For elderly participants, golf offers a safe and healthy recreational option that isn't overly stressful or strenuous on one's physical or mental well being. Mark Twain coined the now famous phrase, "golf is a good walk spoiled". Humour aside, getting out for a round of golf helps with muscle endurance, blood circulation, flexibility and overall mental alertness not to mention the opportunity to get outside in the fresh air socializing and being active with family and friends.

HANDICAPPING—GOLF'S GREAT EQUALIZER

One of golf's advantages is that regardless of age, physical aptitude or skill set, any golfer can compete on a level plane with any other player thanks to the handicap system. A fair game is a fun game and while handicaps and score tracking are more common among competitive players, club members or the most avid enthusiasts, the fact that a less skilled golfer can play on an equal basis against the very best player will always be one of golf's differentiating advantages.

THE GREAT OUTDOORS

Golf courses are among the most picturesque and serene locations on the planet. From ocean vistas and breathtaking mountain landscapes to parkland wonders or minimalist links-style designs, Canada is blessed with a diverse golf topography that provides a natural habitat to a wide range of fish, birds and wildlife.

Canada's golf experience can be enjoyed through a variety of different facilities such as public courses, private courses, semi-private courses, executive par-3 courses, mini-putt courses and driving range facilities.

Take time to enjoy the natural surroundings every time you tee it up and take advantage of what hours of fresh air and exercise can do to boost your health, mind and spirit.

CALORIE BURN

When it comes to exercise, find something you love and the health benefits are sure to follow. Studies show that a golfer will burn 1,450+ calories during an 18-hole round while walking and carrying their clubs (close to 1,400 calories if walking and using a push cart). Can't walk a full 18? No problem, as studies all show that a golfer can burn 800+ calories when using a golf cart during a round.

TIME WITH LOVED ONES

Golf is such a special sport to share with a spouse or partner as well as kids and generations of family members. Many sports and activities see parents or grandparents on the sidelines cheering on their children as they participate. At golf courses, you're just as likely to see families out enjoying a round together as you are to see a couple enjoying date-night with a nine-and-dine. For singles, the golf course can be a great way to meet new friends or someone special who shares your passion for the game.



DESTINATIONS AWAIT

For those seeking golf experiences outside of their own community, golf travel can take you to stunning locations all over the world. Based on study released in 2014 by the National Allied Golf Associations (NAGA), Canadian travelers spent \$2.5 billion annually on golf-related travel within Canada including on-course spending at the courses they visited. Talk about golf tourism – foreign visiting golfers to Canada spent \$1.6 billion on golf related travel and on-course spending.

FAMILY AND FRIENDSHIP

The camaraderie and social aspects of the game are two of the factors that have led to golf having the highest participation rate of any sport in Canada. With a game rooted in honesty, integrity and fair play, you learn a lot about yourself and others over the course of a round of golf. These life values also go along way when instilled in children who are introduced to the sport either in school or at junior golf activities in their community.

CHALLENGE AND COMPETITION

With various tee deck yardages, stunning topography and all sorts of game and scoring formats, golf can offer a different challenge each time you play. Whether you're a tournament competitor, an avid player looking to score better than your friends or a casual enthusiast looking to improve their game, golf offers a variety of challenges to meet every player's skill set or competitive appetite.

“With a game rooted in honesty, integrity and fair play, you learn a lot about yourself and others over the course of a round of golf.”



BUSINESS ON THE GOLF COURSE

The golf course can be a great forum to conduct business or host important clients. With plenty of conversation time between shots and the opportunity to spend 4.5 hours together, it's little wonder that golf courses are often considered green grass boardrooms in communities across Canada. An added bonus is that you can learn a lot about a person—their general demeanor, how they handle stress and their competitive makeup—over a round of golf.

CHARACTER AND VALUES

A key assumption in *LTPD* outlines that playing sport builds character. Values inherent in golf such as integrity, fair play, discipline and etiquette strengthen character and can be especially influential on children. Golf challenges players to deal with the frustration of missed putts or wayward shots and those same coping skills can suit us well in dealing with the challenges that life throws our way.

COACHING/INSTRUCTION

All instructors and coaches undergo PGA of Canada training that is entirely specific to the type of player or athlete they wish to work with. The recommended level for *Golf For Life* are listed below:

- *Instructor of Intermediate Golfers*
- *Instructor of Advanced Golfers*

GOLF FACILITIES

Golf clubs and facilities act as a venue for extracurricular events such as club dinners, social gatherings, weddings, group lessons, fundraisers and family outings. In addition to hosting a variety of fun or competitive golf events, facilities can also offer social events publicly or directly through membership. Consider your local golf facility next time you are planning a fun day in your community.



For resources relating to this stage and other elements of *LTPD*, visit www.golfcanada.ca/LTPD

GOLF IS BIG BUSINESS

The results of a Canadian Golf Economic Impact Study released in 2014 by the National Allied Golf Associations reinforces that golf is a major economic, employment and charitable driver in Canadian communities from coast to coast. The game of golf accounts for an estimated \$14.3 billion of Canada's Gross Domestic Product (GDP). Included in that economic impact are:

- 300,100 direct, indirect and induced jobs
- \$8.3 billion in household income
- \$1.4 billion in property and other indirect taxes
- \$2.2 billion in income taxes

Golf in Canada generates an estimated \$36.9 billion in total gross production through the combination of direct, indirect and induced spending impacts.

The total direct economic activity (total direct sales, golf related travel, capital spending) resulting from the Canadian Golf Industry is estimated at \$19.7 billion.

Did you know? *Direct revenues generated directly by golf courses and their facilities, and stand-alone driving and practice ranges (\$5.0 billion) rivals the revenues generated by all other participation sports and recreation facilities combined (\$4.8 billion) in Canada.*

Additional Benefits and Impact:

Environmental Benefits—Over 175,000 hectares of green space managed by approximately 2,308 golf course operators, including 30,000 hectares of unmanaged wildlife habitat under golf course stewardship.

Golf Participation—Based on starts reported by operators and rounds played reported by Canadian golfers, that approximately 60 million rounds of golf were played in 2013.

Employment Opportunities—The Canadian Golf Industry provides an excellent employment opportunity for 126,000 people, with as many as 37% of those working at Canadian golf courses being students.

Charitable Activity—Nearly 37,000 charitable events hosted at Canadian golf courses help raise more than \$533 million annually for charitable causes across Canada.

Golf Tourism—Canadian travellers spend \$2.5 billion annually on golf-related travel within Canada (including on-course spending at courses visited). Foreign visiting golfers spend \$1.6 billion on golf related travel and on-course spending.



GLOSSARY OF TERMS

Ball Speed is a measurement in MPH of the ball's initial velocity, once a golfer hits the ball, which is measured at impact by a device known as a "Launch Monitor." Ball speed shows how much energy the golfer is transferring to the golf ball. Ball speed, along with the variables of launch angle (take-off trajectory), and spin rates (backspin and sidespin in RPM) determine the distance, trajectory, and flight characteristics of the golf ball.

Blocked Practice refers to a practice sequence in which individuals repeatedly rehearse the same task. It is also referred to as low contextual interference.

Cardiovascular Endurance refers to the general physical fitness of the athlete. More specifically, it is the body's ability to deliver oxygen and nutrients to tissues and to remove wastes over a sustained period. The heart, lungs, blood, and muscles must all be working optimally for maximal cardiovascular endurance. In golf, cardiovascular endurance is important for keeping high energy levels during play, having the ability to play and practice for long periods of time without fatigue, and for overall health.

Coaching Development Model (CDM) is the framework which defines the structure of the coaching program that is put in place to support and train coaches to service participants in the sport of golf.

Chronological Age refers to the number of years and days elapsed since birth. Growth, development, and maturation operate in a time framework; that is, the child's chronological age. Children of the same chronological age can differ by several years in their level of biological maturation. The integrated nature of growth and maturation is achieved by the interaction of genes, hormones, nutrients, and the physical and psychosocial environments in which the individual lives. This complex interaction regulates the child's growth, neuromuscular maturation, sexual maturation, and general physical metamorphosis during the first two decades of life.

Core Golfing Population refers to the group of golfers that play eight or more rounds per year.

Developmental Age refers to the interrelationship between growth and maturation in relation to the passage of time. The concept of development also includes the social, emotional, intellectual, and motor realms of the child. Developmental age reflects the true overall situation of an individual's growth and maturation and may be thought of as an index of development stated as the age in years of an individual and determined by specified standardized measurements such as motor and mental tests and body measurements.

The terms *growth* and *maturation* are often used together and sometimes synonymously. However, each refers to specific biological activities. Growth refers to observable, step-by-step, measurable changes in body size such as height, weight, and percentage of body fat. Maturation refers to qualitative system changes, both structural and functional in nature, in the organism's progress toward maturity; for example, the change of cartilage to bone in the skeleton.

Emotional Regulation is the acceptance and processing of feelings. The ability to understand and effectively manage basic human emotions (e.g., fear, anger, guilt/embarrassment, surprise, sadness, happiness).

Golf Canada – a member-based organization – is the governing body of golf in Canada, representing more than 322,000 members at 1,500 clubs across the country. Recognized by Sport Canada as the National Sport Organization (NSO) for golf in this country, Golf Canada is responsible for promoting participation in and a passion for the game of golf in Canada. Further information is available at golfcanada.ca

Greens in Regulation (GIR) occurs when a golfer advances his/her ball onto a putting green in one stroke on a par-3 hole, one or two strokes on a par 4, or two or three strokes on a par 5 hole. Any part of the player's ball must be on the green for a player to record a GIR (i.e. a ball on the fringe doesn't count as a GIR). GIR's are the most reliable golf statistic for performance. A recent MIT study shows that a player's score is correlated to the equation: $\text{Score} = 95 - 2(\text{GIR})$. Therefore a player who hits 10 GIR in a round is likely to shoot a score of $75 - 95 - 2(10)$. This is reliable about 17.5 times out of 20.

National Coaching Certification Program (NCCP) is a coach training and certification program for 65 different sports and is offered in both official languages across Canada. The NCCP is the recognized national standard for coach training and certification in Canada. As part of the program, all coaches are trained in ethical decision-making and sport safety.

PGA of Canada is a membership based non-profit organization representing over 3,700 PGA professionals and tournament professionals across Canada. The Association was founded in 1911, making it the oldest professional golf association in North America. Further information is available at pgaofcanada.com

Peak Height Velocity (PHV) is the maximum rate of growth in stature during the adolescent growth spurt. The age of maximum velocity of growth is called the age at PHV. The rate of change in height varies through specific stages of growth and allows for height cues or rates of growth changes to be used as potential indicators of appropriate activity programming and evaluation content for developing athletes/players. Onset of PHV (Peak Height Velocity) is the beginning of the growth spurt.

Periodization is a time management and planning technique that provides the framework for arranging the complex array of training processes into a logical and observationally 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 *LTPD* context, periodization connects the stage the athlete is in to the suggested requirements of that stage.

Physical Literacy refers to the mastering of fundamental motor skills and fundamental sport skills.

Physical Work Capacity is the maximum amount of work a person can perform. It is usually related to a specific heart rate and used to be a measure of physical fitness.

Quality Ball Strike is to be engaged with full concentration in a strike specifically designed to improve feel, skill and/or golf score. This changes as one progresses through the stages as accuracy and precision of the strike becomes more critical.

Random Practice is a practice sequence in which individuals perform a number of different tasks, in no particular order, thus avoiding or minimizing consecutive repetitions of any single task. It is also referred to as high contextual interference.

Rotational Velocity is a measurement of performance within the golf swing – often used to assess the athlete's hip rotation speed through impact.

Sequencing refers to the specific planning and placement of training components into an athlete's schedule. The term is often used in correspondence with periodization.

Shot by Shot is an industry leading statistically based online golf performance analysis program. It is the most accurate and advanced game analysis program available. Traditional statistics (fairways, greens-in-regulation, sand saves and # of putts) provide little insight and can be misleading when used as indicators of performance. Golfers enter their on-course performance data by logging onto the shotbyshot.com website following play. *Shot By Shot* provides golfers with instantaneous feedback. It enables golfers to accurately determine the relative strengths and weaknesses of all facets of their games versus their target handicap group. This information allows players and their coaches to be aware of their skill levels and performance trends. *Shot By Shot* is an excellent diagnostic tool and game improvement motivator.

Trainability refers to the genetic endowment of athletes as they respond individually to specific stimuli and adapt to it accordingly. Malina and Bouchard (1991) defined trainability as the responsiveness of developing individuals at different stages of growth and maturation to the training stimulus.

The United States Golf Association (USGA) is the governing body of golf in the US, its territories and Mexico since 1894. It is a not-for-profit association run by golfers for the benefit of golfers.

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APPENDIX

The chart below represents key psychological areas of focus and identifies when they should be introduced and or practiced as a coach and player progress through the Long-Term Player Development stages.

MENTAL TRAINING FRAMEWORK FOR GOLF

	ACTIVE START	FUNDAMENTALS	LEARN TO GOLF	INTRO TO COMPETITION	LEARN TO COMPETE	TRAIN TO COMPETE	COMPETE TO WIN
PSYCHOLOGICAL AREAS OF FOCUS							
Calming	X	X	X	X	X	X	X
Breathing	X	X	X	X	X	X	X
Performance Preparation	X	X	X				
Stress/Tension Control	X	X	X	X	X	X	X
Self Talk		X	X	X	X	X	X
Confident Behavior		X	X	X	X	X	X
Evaluating Your Play		X	X	X	X	X	X
Imagery		X	X	X	X	X	X
Goal Setting			X	X	X		
Focus and Concentration			X	X	X	X	X
Pre-Performance				X	X	X	X
Performance Cues and Focus				X	X	X	X

APPENDIX 2

To determine an appropriate length of golf course to optimize enjoyment and development, utilize the chart below as a guide. Swing speed and carry distances are related. For example, if you swing at 50 MPH then you will carry your driver approximately 135 yards in the air. A suitable golf course that provides ideal shot values for you, would be between 4000–4500 yards long. For young players, the goal should be to make the game fun and appropriately challenging, representative of its adult form.

GOLF COURSE COURSE LENGTH RECOMMENDATION CHART

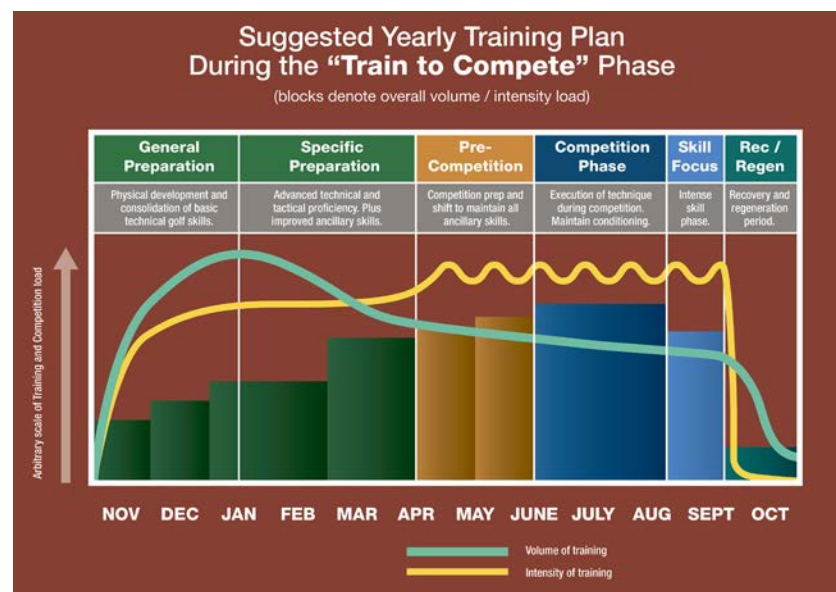
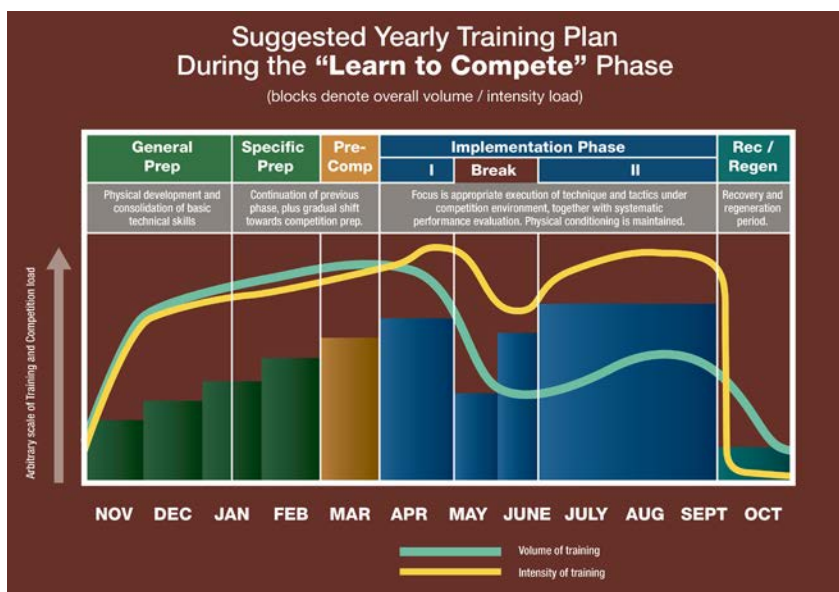
SWING SPEED (MPH)	APPROXIMATE DRIVER CARRY DISTANCE (YARDS)	APPROXIMATE 5 IRON CARRY DISTANCE (YARDS)	RECOMMENDED GOLF COURSE LENGTH (RANGE OF YARDS FOR 18 HOLES. FOR 9 HOLES DIVIDE BY 2)		
30	100	70	3,000	to	3,500
40	110	80	3,500	to	4,000
50	135	95	4,000	to	4,500
60	150	105	4,500	to	5,000
70	165	115	5,000	to	5,500
80	180	130	5,500	to	6,000
90	210	150	6,000	to	6,500
100	240	170	6,500	to	7,000



APPENDIX 3

PERIODIZATION

The following diagrams represent suggested annual plans for the athlete in the *Learn to Compete* and *Train to Compete* stages. The recommended intensity and volume levels of training are shown in different phases throughout the year. These guides are to help achieve optimal performance in the most important competition(s) of the year.



Additional information can be found at golfcanada.ca/LTPD

APPENDIX 4

The diagram on the left represents the suggested annual plan for the athletes in the *Compete to Win* stage. The diagram on the right represents a guide for the number of quality ball contacts throughout an athlete's career. The 'cumulative total' figure, right, clearly shows that a player should build a substantial history or 'critical mass' of quality balls strikes' over several years in order to provide a solid technical platform for the primary competitive years and that there is likely to be a range to this history rather than it being some actual fixed number depending upon several different factors (i.e. underlying ability, facilities, environment, instruction and coaching etc.).

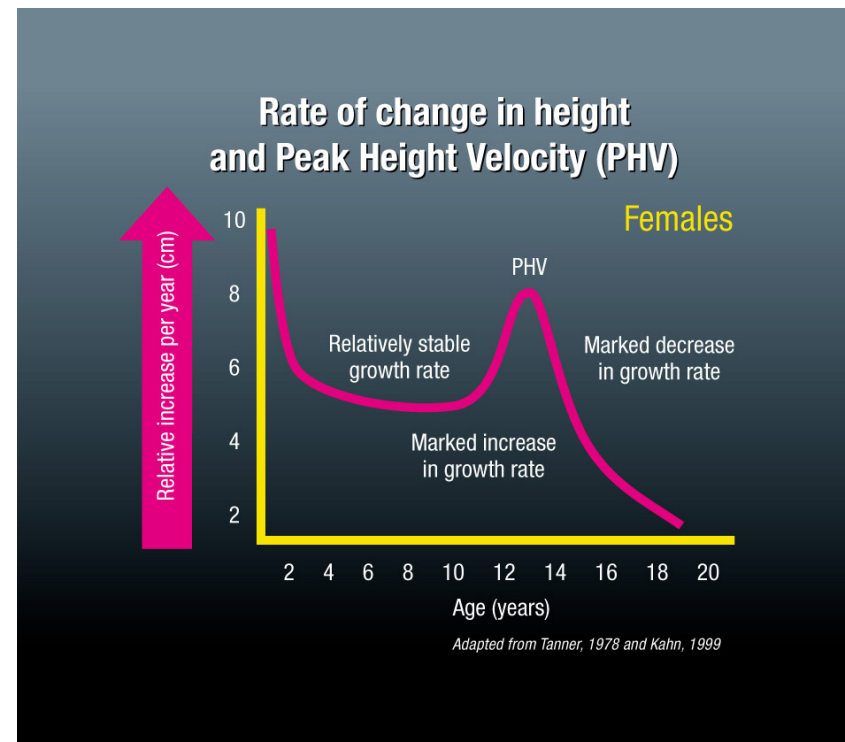
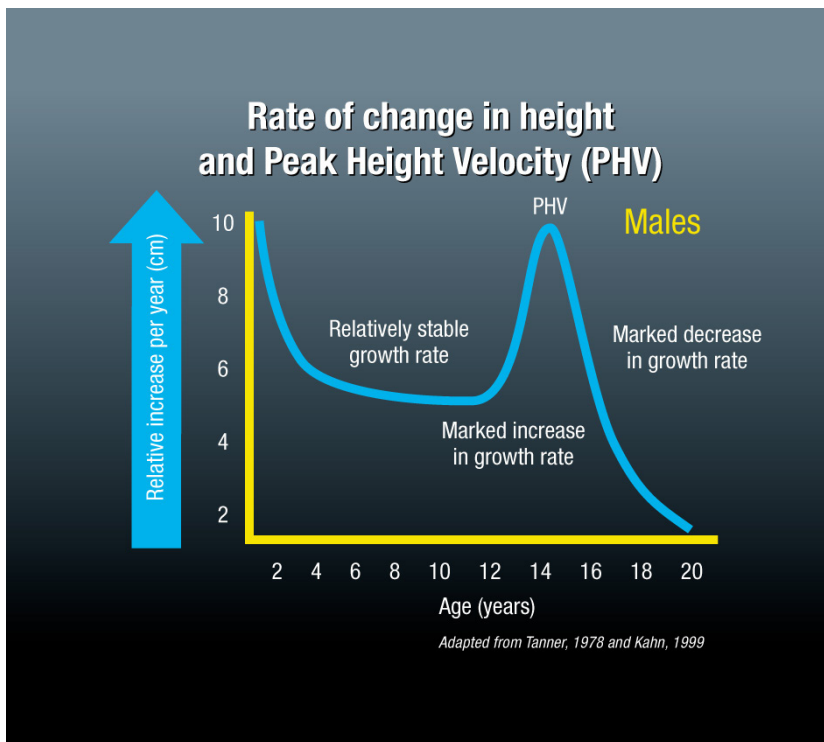


Additional information can be found at golfcanada.ca/LTPD

APPENDIX 5

PEAK HEIGHT VELOCITY

The diagrams below show the rate of change in height of both males and females throughout the adolescent period. The Peak Height Velocity (PHV) point marks the period where the maximum rate of growth occurs. Parents, instructors/coaches should be very aware of this critical developmental factor as it significantly impacts the amount and type of training that is most beneficial to the player at a key period of sensitivity.





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