ULTIMATE CANADA LONG-TERM ATHLETE DEVELOPMENT MODEL

ACKNOWLEDGEMENTS

This document is a product of a team of individuals passionate about Ultimate and the future of the sport. Their hard work and dedication allowed us to create a comprehensive athlete-centered pathway for the development of future Ultimate athletes.

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Translation:

Design:







FOREWORD

Ultimate continues to gain popularity in Canada as word spreads about this easy to learn sport that challenges players to throw, catch, run and jump in order to move a disc down the field. Its popularity has also come from the lack of referees and the importance of Spirit of the Game (SOTG) – a base of values demonstrated by players in order to preserve the integrity of the sport.

On the international stage, our Canadian athletes have demonstrated their passion and dedication to the sport by winning multiple world championships and traveling around the world to participate in tournaments and programs.

The advent of Canadian Sport for Life and its Long-term Athlete Development (LTAD) model creates an excellent opportunity for our nation to define a pathway and develop programs to support our current and future athletes. As an Ultimate community we are fortunate to learn from the broader sport community as we develop our blueprint for the future of Ultimate in Canada.

In developing our LTAD, the advisory committee worked hard to ensure that it was true to the goals of giving every athlete and participant the best opportunity for their own excellence and enjoyment within the sport. They also aimed to highlight and integrate SOTG as an integral part of our athlete's development, regardless of their age or stage of development. By reflecting the importance of SOTG in our LTAD and National Coaching Certification Program (NCCP) we aim to preserve the culture and values that have made our sport so successful today.

The Ultimate Canada LTAD Committee

INTRODUCTION

Canadian Sport for Life (CS4L) is a national movement aimed at improving Canadian sport. It promotes quality sport for all Canadians from infancy to senior years. A key element of CS4L is Long-term Athlete Development (LTAD), which provides a progressive pathway for athletes to optimize their development according to recognized stages and processes of physical, mental, emotional, and cognitive maturation. LTAD is more than a model - it is a system and philosophy of sport development that is athlete-centered, coach-driven, and administration-supported. It recognizes that there are no shortcuts; people develop over time and go through sequential developmental stages that should not be skipped or rushed.

As Ultimate continues to grow, it is our responsibility as leaders, participants, coaches, parents and administrators to be innovative, forward thinking and focused on LTAD as our vehicle of change to create a world-class model that will shape and sustain our sport in Canada. Ultimate Canada recognizes LTAD as a cornerstone for building our sport for athletes of all levels and abilities.

In order to succeed in developing our sport we will need to work together to leverage our strengths and overcome our current challenges. Using the LTAD as our guide we can begin by focusing on:

- Creating opportunities for the greatest number of people to start playing Ultimate.
- Creating developmentally appropriate training and competition plans delivered by well-trained coaches.
- Supporting administrators at all levels of our sport.
- Creating a broad understanding of Spirit of the Game at every level.
- Creating a long-term strategy for infrastructure development and management.

This document begins by taking a look at the sport of Ultimate including the challenges we currently face and the impact of these shortcomings. What follows is the eight-stage LTAD model specifically designed for Ultimate that addresses the needs of the athletes at each step along their developmental pathway. This is a growing, living document that will constantly be fed with new ideas and concepts as our sport continues to develop and grow over time.

ULTIMATE

Since its creation in the late 60s, Ultimate has gained worldwide recognition as a fast-paced, low-cost sport that emphasizes sportsmanship through Spirit of the Game. It's easy to learn, requires little equipment and can easily be played in any open space. The basic skills of the game – throwing, catching, running and jumping –make for an easy transition for athletes from other sports, both team and individual. New participants often indicate that the strong sense of community at all levels of play make for a rewarding experience on and off the field.

Spirit of the Game

One of the unique and very important aspects of the sport is how players are responsible to keep the game fair without the use of referees.

"Ultimate relies upon a spirit of sportsmanship that places the responsibility for fair play on the player. Highly competitive play is encouraged, but never at the expense of mutual respect among competitors, adherence to the agreed upon rules, or the basic joy of play. Protection of these vital elements serves to eliminate unsportsmanlike conduct from the Ultimate field. Such actions as taunting opposing players, dangerous aggression, belligerent intimidation, intentional infractions, or other 'win-at-all-costs' behavior are contrary to the Spirit of the Game and must be avoided by all players." (Ultimate Players Association, 2011)

OUR MEMBERSHIP

In 2012, Ultimate Canada recorded:

- ~32,000 players with grassroots memberships,
- ~3,000 competitive Ultimate players,
- ~80 leagues across Canada; and
- Active leagues in all 10 provinces and in 2 territories

Table 1: 2011 and 2012 Grassroots Membership Demographics by province

Province	2011 Members	2012 Members
BC	4,855	5.370
AB	2,084	2,250
SK	1,636	1,736
MB	3,753	4,019
ON	10,908	11,192
QC	4,787	5,557
NB	678	750
NS	641	743
PE	111	150
NL	494	527
YK	19	34
NT	124	164
NV	0	0
Total	20,000	22.010

Total 30,090 32,019

Table 2: Ultimate Canada Demographics of Competitive Members in 2011-2012

Province	2011 Members	2012 Members to Date
BC	350	831
AB	136	199
SK	2	58
MB	124	176
ON	1146	1020
QC	756	540
NB	77	4
NS	72	13
PE	1	1
NL	26	22
Territories	0	0
NONE	0	1
Total	<u>2690</u>	<u>2864</u>

NOTES

- 1. Ultimate Canada competitive members are 59% male, 41% female in 2012.
- 2. Ultimate Canada offered one-event memberships at the 2012 Canadian High School Ultimate Championships (CHSUC) and the Canadian Western University Ultimate Championships (CWUUC) at a cost of \$5. These memberships are not listed in the above numbers. There were 229 sold for the CHSUC and 23 for the CWUUC.

Figure 1: Ultimate Canada Competitive Membership from 2004 - 2012 by Canadian Ultimate Championships

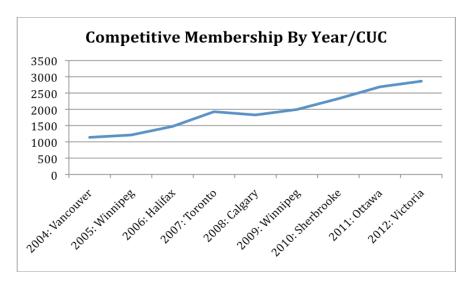


Figure 2: Ultimate Canada Competitive Players by Gender in 2012

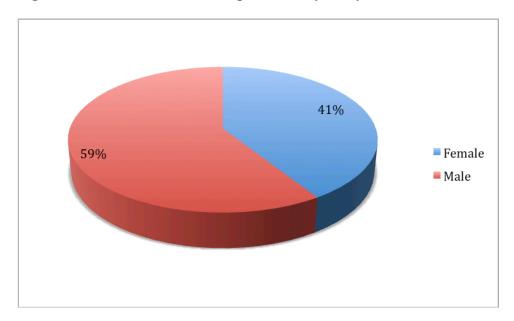
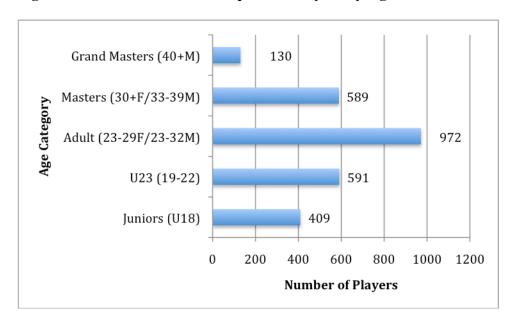


Figure 3: Ultimate Canada Competitive Players by Age in 2012



Ultimate around the World

Governing body: World Flying Disc Federation

54 member federations

2011 – 98,000+ members worldwide World Flying Disc Federation (2012)

THE CHALLENGES WE FACE

Throughout the Canadian sport system, shortcomings have been identified that can be addressed by implementing the principles of long-term athlete development in sport programs across the country. Ultimate Canada has reflected on the shortcomings and articulated how these impact Ultimate and athlete development. All parts of our system must recognize program shortcomings that impact athletes in the long-term – including coach and player development, leadership, facilities and competition.

Player Development

To excel in Ultimate, players must be aware of the development pathway and be educated and exposed to appropriate training conditions throughout their development. Without an agreed-upon national model to follow, the athlete's development pathway is unclear and Ultimate players will continue to be developed across the country in an inconsistent manner. Current Ultimate development opportunities are inconsistent with sport development literature, which supports a stage-by-stage approach.

Shortcoming	Impact
Fundamental movement skills are not taught properly during childhood.	Athletes lack fundamental movement skills when joining youth Ultimate programs
	leading to a longer learning curve in order to
Developmental athletes over-compete and under-train.	perform basic Ultimate specific skills.
	Preparation is geared to the short-term
	outcome — winning games — and not to
	the process (e.g. skill development).
	Over-competing leads to chronic injuries and burnout.
Elite level strategies and tactics are imposed	This may lead to underdeveloped skills that
on developing players.	are the foundation necessary to be effective as an advanced player.
Training, strategy and tactics used in the	
men's games are often imposed on female	The development of female players is
players, particularly in the mixed division.	affected on mixed teams that primarily focus on the male players on the field.
Parents are not educated about LTAD.	Parents do not necessarily register their children in developmentally appropriate programs. Important development stages are
	skipped or shortened.
Players are often grouped into too broad of an	Athletes may not be getting exposure to
age group, an incorrect age group or a group	challenging training environments.
with the opposite gender as there are limited	
offerings with sufficient numbers across all	Early maturing players may have a big

age groups and for both genders.	advantage over their later maturing teammate or opponent.
Limited age groups and regions have access to Provincial and regional camps. Physical mismatches are created when programs are defined by chronological age.	Early maturing players fall behind at a later stage as they never took the time to develop skills and may choose to leave sport as a result.
Chronological rather than developmental age is used in training and competition planning. This is especially common as divisions created by age are quite broad.	Late maturing players may leave the sport if the proper environment is not created for them during their extended skill- development window. The athletes will feel inferior to early maturing players and won't understand their potential for development.
In some jurisdictions there is no integration between physical education programs in schools, recreational community programs, and elite competitive programs.	The athlete development pathway is unclear and disjointed. Players lose interest or are unsure of the road to achieve their goals. Skills are taught haphazardly without standardization. Some participants are not aware of potential goals, as there is no clear pathway.
Process and criteria for identifying elite players is not nationally defined. There is no talent identification (TID) system.	Ultimate Canada could be missing talented athletes. Athletes may miss out on opportunities to excel in Ultimate.
Contact time between player and coach is often too brief (short playing seasons).	Athletes, especially at a young age, are not receiving the required feedback to develop.
Defining development programs by Provincial jurisdiction is not always effective. No training and competition guidelines exist for players, coaches and administrators.	Players are not able to compete in developmentally appropriate competitions. Players are not exposed to developmentally appropriate competition.
Advanced athletes are not exposed to enough high level competition.	Players are not adequately prepared to compete for national team(s) as they have not received enough appropriate competition training.
Canadian climate limits exposure to outdoor Ultimate in colder parts of the country.	Imbalance of experience outdoors between different areas in Canada.
Vast geographical nature of Canada creates a barrier to competition due to lengthy travel.	Limited exposure to competition
Many athletes start playing Ultimate in university or as young adults.	Athletes miss out on optimal development opportunities to learn Ultimate-specific skills.

Coaching

To develop players who pursue elite competition or lifelong wellness, there must be qualified coaches to train them. At present, the Canadian system for identifying and training coaches is inadequate, and the quality of coaching is very inconsistent where coaching is available.

Shortcoming	Impact
The most experienced and knowledgeable	At the earliest stages where the foundational
coaches work at the elite level; less-	building blocks are needed, inexperienced
experienced/knowledgeable coaches are	coaches may not have the knowledge and
found at the development level where quality,	experience to properly train athletes.
trained Ultimate coaches are essential.	
	Parent coaches are not generally supported
	with training, mentoring and resources.
Ultimate's formal coach development	Coaches do not necessarily focus on the
pathway is under development. Current	right things at the right time.
coaching levels aren't serviced by	
educational training.	Often in the early stages, coaches focus on
	tactics not on skill.
	Many coaches promote over-specialization
	prematurely by limiting players to specific
	positions to win.
Mature sports tend to have retired players	Programs, at all levels and stages, are
interested in coaching. Due to the age of	inconsistent in quality. Availability of
Ultimate, there are a limited number of	coaches is extremely limited.
coaches to work at all levels of the sport,	
particularly a lack of female coaches.	
Coaches do not understand the importance of	Preparation is geared to the short-term
periodization in program design.	outcome — winning — and not to the
	process.
Sport science, sport medicine and sport-	
specific technical-tactical activities are not	Coaches do not utilize sensitive periods of
integrated.	accelerated player "trainability."
	Knowledge of training is inconsistent
	(windows of trainability are not understood).
No training and competition guidelines exist	Players may be participating in training
for players, coaches and administrators.	programs and competition schedules that are
	developmentally inappropriate.
Coaches of younger groups are often	Can negatively impact a participant's first
unfamiliar with Spirit of the Game, rules and	exposure to the sport if SOTG is not
appropriate coaching techniques as they are	included/emphasized.
often teacher supervisors or parents with	
limited exposure to Ultimate.	

Leadership

Inconsistent leadership and ineffective organization hamper the development of Canadian Ultimate. Players and coaches need the support of solid administrative frameworks to deliver programs that maximize player participation, development, and success.

Shortcoming	Impact
Club organization is haphazard between	Competition schedules are often in conflict
different jurisdictions.	resulting in players having to make a choice
	between teams or over-competing.
Clubs are not always staffed for efficient	
administration.	The administrative function falls on the
	players resulting in early burnout and loss of
Club system is not consistently defined –	experienced leadership.
what is an Ultimate club?	Th :
Chiles are not legically structured for	There is not a consistent model, programs or
Clubs are not logically structured for	services for long-time or new members.
accountability and efficiency.	Recruitment and retention of members is
Clubs lack "cradle to grave" culture where	impacted.
members remain involved for life.	impacted.
memoers remain involved for file.	The focus on development within a tiered
Tiered club systems often experience	system is inconsistent from year to year due
turnover as the best players move up to a	to ever changing rosters and external
higher team.	influences (e.g. qualification to international
	tournaments).
Many leagues focus on grassroots player	·
development and do not support elite level	Elite teams are not sufficiently supported or
play.	represented by local Ultimate organizations.
Many touring team clubs do not have a	There may be a lack of continuity within
technical director, head coach or team	programs, impacting player development.
manager.	
	Board and club administrators may make
Role and qualifications of the touring team	program decisions on player development
club technical director are not defined.	without being well informed.
	Dragrams may be developed to most the
	Programs may be developed to meet the needs of a certain age group but not all
Volunteerism is not consistently promoted or	groups. Volunteers may not feel valued or needed
recognized sufficiently.	therefore, volunteer numbers may decline or
Too Sinzou builloining.	stagnate.
More volunteers are needed to staff and run	
programs.	
Leadership selection lacks consistent process	Inconsistent recruitment, templates, training
at all levels.	and retention of leaders will impact all

Succession planning is needed for the experienced event administrators in Canada.	aspects of the organization from the club to provincial to national level. Lack of succession planning could lead to loss of knowledge from key volunteers and organizers.
Team leadership is inconsistent across jurisdictions and over time. Knowledge transfer does not occur from year-to-year or from one jurisdiction to another.	Opportunities for knowledge transfer and efficiencies are lost.

COMPETITION

Canadian players fortunate enough to receive good coaching and train with an appropriate development model in a well-managed environment, their next challenge is playing within a suitable competition format. The current game, league, and tournament formats in Canada are often unsuitable for the players and regions they serve.

Shortcoming	Impact
Different rules (including field dimensions)	Canadian players are without required
and customs are applied at the international	experience to successfully compete in the
level.	international competition environment.
Competition structure is not integrated or	Length of season is inappropriate (e.g.
rationalized at all levels across Canada.	school programs in cold-weather climates).
	This results in over-competition, possibly
Seasons overlap between club, school, and	overtraining and inconsistent coaching.
select teams.	
	Ultimate seasons overlap resulting in over-
	competition and varying levels of
	commitment from players with differing
	priorities.
	Seasons overlap with other sports, creating
	barriers to play and over-competition.
Organizations do not take advantage of	Skill development is slowed by field size,
opportunities to play Ultimate in a variety of	equipment size and rules that are not
formats and on a variety of surfaces (5-on-5,	appropriate for the developmental age of
indoor, beach, etc.).	athletes.
Adult game structure is imposed on children	Children do not get enough opportunities to
(e.g. 7v7 on a full field).	throw and develop skills when playing the
	adult game.
Geographically isolated communities have	Players enter events with a disadvantage of

difficulty in accessing competitive opportunities within current competitive	not having played enough high-level games.
system.	Financial barriers to competition due to required travel.
Competition structures that regularly place	
teams from regions with well-established programs against new teams on the same playing field. This occurs at all stages.	Growth of clubs/teams inhibited by lack of competitive opportunities. Loss of interest from players as they are unable to reach the highest level.
Few elite Canadian teams exist to provide playing opportunities for players after adolescence (e.g. graduating U20 players have nowhere to go).	The player pathway is not seamless. Players are not being challenged enough to advance their game.
National team program exposes a relative few players to international competition.	Canadian players are unaccustomed to the intensity and pace of the international game.
	Canadian players are not familiar with international customs and have struggled in the past with a perceived lack of SOTG.

Facilities

The backdrop for every playing experience is the playing surface itself, and at elite levels, available ancillary training facilities for peak fitness and performance training. The availability of Ultimate-only fields and multi-use fields in Canada has been improving steadily over the last 5 years, but facilities development needs to be continued.

Shortcoming	Impact
Long-term strategy for infrastructure	Lack of field availability year-round
development often does not exist and facility	especially in parts of the country exposed to
needs are not prioritized.	harsh winter conditions.
High-quality facilities remains limited for many small and remote communities (e.g. field turf, indoor, regular fields).	
Facility scheduling does not always share	Inappropriate facilities create a less
time adequately.	enjoyable game experience (i.e. playing a gym or on a bad/restricted field).
Access to programs at all ages is sometimes	
limited.	Exposure to Ultimate is inhibited by the availability of facilities.
Best facilities are often offered to league	
(paying) members before elite or developing	Touring teams are unable to find available
elite teams.	and high quality practice fields. Often forced
	to practice on sub-par fields that limit what
Historical bookings often preclude Ultimate	training can be completed.

organizations and teams from gaining access	
to facilities being used by long-standing	
sports.	

OUR FUTURE: LONG-TERM ATHLETE DEVELOPMENT (LTAD)

The growing enthusiasm for Ultimate provides a tremendous opportunity to examine current practices and provide direction for our sport. As athletes continue to enter Ultimate programs at various stages in their development, it is critical to ensure that they understand their development pathway and the opportunities that are available to them. It is also an important time to work together to ensure that those already hooked on Ultimate remain active in our sport.

The LTAD model provides the framework to systematically train and develop physical, technical, mental and emotional capacities in athletes according to scientifically recognized principles and stages of human development. It promotes physical literacy as being the foundation for:

- Being active, healthy and engaged in physical activity for life; and/or
- Achieving personal best performances at all level of competition.

The eight-stage model, developed by experts in Ultimate, clearly defines the intended foci for athletes within a specific stage both on and off the field. The Ultimate LTAD allows us to:

- Understand the role(s) of the athlete, parent, coach and administrator during each stage and for each developmental area (physical, mental, tactical, psychological and lifestyle)
- Provide the right Ultimate programs to the right participants at the right time
- Structure the training, competition and recovery environment for both high performance and recreational athletes of all ages
- Strategically introduce Ultimate programming for children at the grassroots level to further support the development of our sport
- Provide stronger evidence-based coaching materials through our Ultimate National Coaching Certification Program (NCCP)

HOW TO USE THE MODEL

Using the model is a three-step process

- 1. Review and understand what influences our model (pgs. 18-27).
- 2. Review and understand the eight stages of our model (pgs. 28-56).
- 3. Understand and execute your role in the model (pg. 57).

The model is a guide to ensure that the needs of athletes are met during each stage of their development. As Ultimate is a young sport, this may mean that current programs offer earlier stages to older individuals to ensure that they have the opportunity to build a foundation. Coaches and organizers must be conscious of this fact and adjust programming to fit the needs of the participants.

The model is much like a school curriculum, but in this case it is for the optimal development of an Ultimate player. By providing this curriculum online, Ultimate

becomes increasingly accessible and understood. It also ensures that Ultimate helps develop well-rounded people that maintain a lifelong passion for sport.

Each stage outlines appropriate development activities and priorities that are essential for the player to continue to progress. Players do not skip stages, however, some players may move through stages more quickly than other players. Remember - "excellence takes time" and building a strong foundation of physical literacy is the first step.

Overview of our LTAD

Stage

Active Start (AS) Ages 0-6

Learn fundamental movements and link them together into play.

FUNdamentals Ages 6-9

Learn all fundamental movement skills and introduce basic Ultimate skills in a fun environment. Develop the athlete first – encourage multisport participation.

Learn to Play (L2P) Ages 8-12

Learn general Ultimate skills and develop understanding of Spirit of the Game in a fun and cooperative environment.

Train to Play (T2P) Ages 11-16

Focus on training the whole Ultimate athlete based on his/her physical, technical, tactical, mental, cognitive, and emotional development.

Train to Compete (T2C) Ages 15-19

Perform basic and Ultimatespecific skills under a variety of competition conditions. Build strong support network for athletes to ensure continual development.

Focus

Preparing children for a physically active lifestyle by laying a solid foundation of fundamental movement skills. It is critical that young children are in environments where they are active on a daily basis and are developing physical literacy preparing them for later stages.

Fundamental movement skills are mastered and motor development is emphasized. Children must be provided a well-structured, fun and stimulating environment to develop the ABC's of athleticism (agility, balance, coordination, and speed), hand-eye coordination and time to experiment with basic Ultimate-specific skills.

Athletes mastering basic Ultimate skills through training. Structured competition is introduced during this stage to test and refine skills learned in practice. Spirit of the Game enables athletes to develop emotional control, communication skills, and sportsmanship. Athletes learn about training elements including: warm-up and cool-down, stretching, hydration, nutrition, recovery and regeneration, and mental preparation.

Preparing the athlete for the demands of the sport both physically and mentally. An increased understanding of tactics and strategies used in Ultimate assists athletes in the continued development and consolidation of skills learned in previous stages.

Creating a strong support network to assist the athlete with personal development as demands in and outside of Ultimate increase. Athletes at this stage are committed, competitive and focused on their performance at an advanced level. Participation in year-round training helps refine and consolidate physical, technical, psychological, and tactical skills.

Learn to Win (L2W) Ages 19-23

Integrate higher levels of physical conditioning with execution of advanced Ultimate-specific technical and tactical preparation under competitive conditions. Consolidating mental, cognitive and emotional development.

Train to Win (T2W) Ages 22+

Refine Ultimate skills, physical condition, mental capabilities and understanding of strategies as they evolve. Exhibit Spirit of the Game during high-level international competition.

Ultimate for Life (U4L) All ages

Provide opportunities at each level to be involved at any capacity (player, coach, or volunteer).

L2W athletes have a strong understanding of the physical, psychological, technical and tactical demands of Ultimate and have experienced play in a competitive environment. During L2W, the athlete physically reaches maturity and continues to develop understanding of Ultimate and the position-specific requirements and sport-specific fitness required to play. The athlete must be committed as the focus is on the refinement of skills through training and pressure situations.

The athlete has reached the pinnacle point in the excellence pathway and is able to execute a wide variety of advanced skills and tactics under pressure in high-level national and international competition. Physical, technical, tactical and psychological capacities have been developed and the athlete continues to follow an individualized training plan for maintenance, remedial work and recovery. Teams at this stage require opportunities to compete at a high level to advance their tactical skills under pressure. Represents 90% of Ultimate players in Canada. Players enter this stage at a variety of ages to engage in recreational activity in a fun and social atmosphere while also maintaining fitness. As the level of commitment is less than in other stages, many athletes see U4L as a viable option to continue playing Ultimate while balancing academic, professional, and family responsibilities.

Transfer of knowledge is a key component of this stage, as trained Ultimate players can remain active as players while also sharing their expertise as coaches, mentors, volunteers and administrators. Retention of youth and adult players from the excellence pathway is critical for the growth and sustainability of our sport.

Many participants in Ultimate for Life are classified as late-entry athletes having been brought into the sport without developing a sport-specific skill foundation. These participants are highly valued members of the Ultimate community as they contribute to the growth of leagues. By participating in various leagues and skills clinics, these players can begin to build their knowledge of Ultimate and skills in order to further enjoy the game.

UNDERSTANDING THE TEN LTAD FACTORS

The following factors are the research, principles and tools upon which LTAD is built.

Developing Physical Literacy – The FUNdamentals

Competence in fundamental movement and sport skills creates a foundation (physical literacy) for an individual's enjoyment and ongoing participation or pursuit of excellence in sport. Physical literacy must be developed through fun and games at an early age in order to take advantage of sensitive windows of trainability (i.e. before the onset of the adolescent growth spurt).

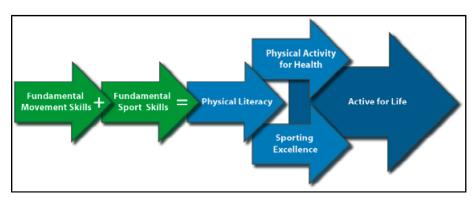


Figure 4: Physical Literacy Leads to An Active Life (Higgs, Balyi, and Way 2008)

Like many other sports, participation in Ultimate requires the ability to perform fundamental movement and sports skills including throwing, catching, jumping and running. Ultimate has the opportunity to contribute in the development of future athletes and elite Ultimate players through the development of stage-appropriate programs.

SIDEBAR

Spirit of the Game is a great tool to teach children basic skills of conflict resolution and fair play alongside their development of fundamental movement and sports skills to develop well-rounded athletes.

A Holistic Approach - Physical, technical, tactical, mental, cognitive and emotional development

People develop at different rates. In sport, the athletes experience change throughout their development – physical, mental, cognitive and emotional – each progressing at their own rate and the timing of development varies. Each factor needs to be considered by coaches and administrators when developing programs and competitions. Athletes should be grouped for training according to their technical (skill) abilities. However, many other factors contribute to the overall performance of the player in competition and training. A coach must be aware of strengths and weaknesses in the player and adapt the program accordingly.

Developing the whole athlete, including character and ethics, is an important focus of the LTAD stage-by stage approach. As Ultimate expands programs into schools and players continue to enter from other sports, it is critical that Spirit of the Game, character development and a strong ethical component is reinforced in training and in competition.

Excellence Takes Time

Scientific research concludes that it takes a minimum of 10 years or 10,000 hours of deliberate practice for athletes in any sport to reach elite performance levels. The stage-by-stage approach of the LTAD articulates the developmental focus during each stage in order to pursue excellence. This long-term approach promotes taking the time to develop a strong and healthy athlete through planned training, competition and recovery.

It is important to ensure that any new Ultimate player, regardless of age, is given adequate time to acquire the skills and knowledge emphasized at each stage in order to play with confidence, contribute to their team, have fun and continue to develop. As Ultimate is a late-entry sport, a number of our elite athletes bring diverse competitive sport backgrounds. They have reached the elite level by applying transferable skills from other sports to Ultimate while focusing on major game components including disc skills, field sense and Spirit of the Game.

Calendar Planning for Competition

"The system of competition makes or breaks an athlete" (Balyi et al 2005)

A competition (game) serves a number of purposes:

- To measure the individual player and team's performance against their opponent(s)
- To examine the individual player and team's improvements based on identified priorities in the periodized plan
- To identify strengths and weaknesses of the team and individuals on the team
- To test new skills and tactics learned in the previous week(s) of practice
- To have fun playing the game
- To test and refine the individual skills in a game environment

The structure and frequency of competition is critical to athlete development. Using the LTAD stage-by-stage approach, the competition structure should test the skill, physical and tactical competencies identified as priorities within the athlete's stage of development. Often teams compete too often and do not dedicate enough time to skill development.

At the early stages of development, training and development take precedence over competitions and short-term success. During the later stages players need to experience a variety of competitive situations and perform well at high-level games, events or tournaments, nationally and internationally. Domestic and international competition and

event calendars must be coordinated, and competitions selected according to the priorities of the specific stage of development of the team and players.

Calendar planning in Ultimate is currently highly impacted by geographic location, tournament schedules, field availability and climate. Each factor needs to be examined to find appropriate ways to ensure that an athlete's needs in regards to competition, training, and rest are consistently being met during each stage. Ultimate Canada has provided competition specific recommendations in the LTAD stages to address tournament schedules, field size, game lengths, and level of competition.

Training to competition ratio

Sports experts have recommended training to competition ratio (e.g. 40:60) for each LTAD stage. These ratios aim to ensure that athletes are properly prepared from competition in both the short- and long-term. Training includes the development of technical and tactical skills and fitness improvement while competition includes tournaments and competition-specific training (e.g. scrimmages).

System Harmony

The best results can be achieved if all sectors involved in developing athlete(s) work together recognizing that enjoying a lifetime of physical activity and achieving athletic excellence are both built on a foundation of physical literacy and fitness. This means the schools, recreation, sport and health sectors need to understand and reinforce the LTAD model and its concepts through well-developed sport programs. These need to provide appropriate LTAD information to their coaches, parents, administrators and other decision-makers.

In order to achieve strong system alignment and integration we need assistance from all involved partners. Everyone must understand their role and responsibility in this development and keep consistent communication with the partners involved. The development of Ultimate's National Coaching Certification Program (NCCP) (see fig. 5) is a step forward in ensuring the partners involved are delivering LTAD-aligned programs to all Ultimate athletes. Coaches are the frontline people who have direct contact with athletes, parents, administrators and other key decisions makers. Therefore, we need to make sure they are fully informed of the Ultimate Long-term Athlete Development Plan and what that means in their programs.

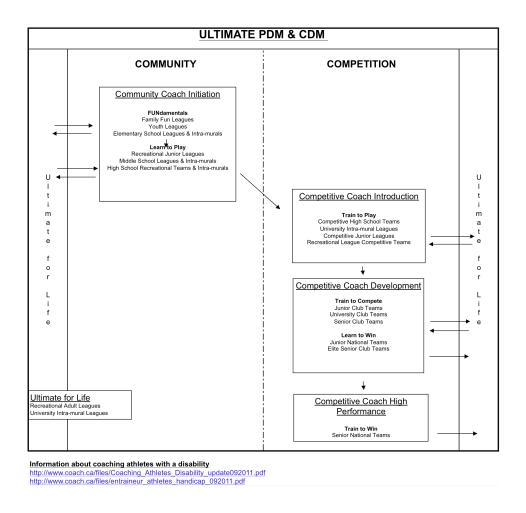


Figure 5: Ultimate Canada National Coaching Certification Streams and Long-Term Athlete Development Stages

Kaizen (continuous improvement)

The concept of continuous improvement, which permeates through CS4L and all aspects of LTAD, is drawn from the respected Japanese industrial philosophy known as Kaizen.

To date, Ultimate's culture has been particularly agile when it comes to change, adapting new ways to play the game and sharing ideas with our community rather informally but effectively. As we go on we must continue to be forward thinking, innovative and adaptable to new sport science, ideas and approaches to improve the experience for athletes participating in Ultimate. We should not be complacent and accept the status quo but always be looking for ways to improve our sport system. Ultimate is evolving and Kaizen continues to be important to improve the game.

Specialization

Sports can be categorized as either early or late specialization. Artistic and acrobatic sports such as gymnastics, diving and figure skating are considered early specialization sports, as they require athletes to develop complex sport-specific skills prior to maturation. Most sports, including Ultimate, are classified as late specialization sports whereby the development of a well-balanced athlete prior to maturation is the most important consideration. Specialization can occur across sports – with an athlete only playing one sport all the time – and within a sport – with an athlete only playing one position in a given sport. Early-specialization in a late-specialized sport has been show to lead to:

- One-sided sport-specific preparation
- Lack of basic fundamental movement skills
- Overuse injuries
- Early burnout
- Early retirement from training and competition and often withdrawl from physical activity

As the development in late specialization sports occurs after maturation, athletes winning at international level competition tend to be older. Such is the case in Ultimate where our international teams average between 27 and 30 years. Young Ultimate athletes should engage in multi-sport programs to develop fundamental movement and sport skills in order to achieve future success on the international stage.

Developmental Age

Developmental age refers to the degree of physical, mental, cognitive and emotional maturity in an individual. Although children may be the same chronological age, they can be four or five years apart based on developmental age due to the variance in the onset and length of puberty. Identifying an athlete's stage of maturation is not difficult. As individuals mature, there are several time-sensitive periods when there is accelerated adaptation to training. Ultimate's LTAD model identifies these periods and makes maximum use of them to introduce skill and fitness development.

A participant's developmental age determines when various aspects of sport and physical activity should be introduced or emphasized. This LTAD model uses the categories "early", "average" (on-time), or "late" maturers to identify the participant's developmental age. These designations help coaches and instructors to design instructional, training and competition programs that are appropriate for the athlete's level of development

Differences in developmental age create advantages and disadvantages for some athletes.

Late developers have a longer period of time to develop important fundamental movement, motor and sport skills as they experience a longer developmental window before the onset of puberty. However, often the sport system favors the early developers because these athletes are bigger, stronger and faster at an earlier chronological age. Often these athletes are given more playing time and are selected more often than their late developing peers.

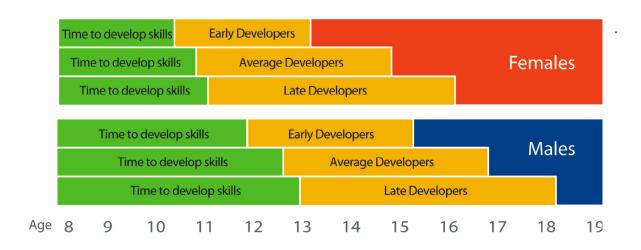


Figure 6: Children Who Enter Puberty Late Have Longer Time Period to Refine Fundamental Sport Skills (Higgs, Balyi, and Way 2008)

Over time, late developers catch up physically and tend to demonstrate superior skills than their early developing peers. As most in-school Ultimate programs group athletes together based on chronological ages (e.g. Grade 9-12; Ages 13-18) early, average and late developers are found on the same team. Therefore, coaches must be aware of the sensitive periods for adaptation to training, ensuring that the later developers take full advantage of the skill window and early developers are training stamina and strength. All players should be given ample opportunity to practice and compete with appropriate challenges suitable for their developmental age.

Sensitive Periods

For an athlete to reach his/her full genetic potential, training must be completed during the sensitive periods of accelerated adaptations to training. This is when the athletes physiological system is most responsive to a training stimulus. Multiple windows of trainability have been identified (see below) to address the development of stamina, skills, suppleness, strength and speed (find out more about the 5 basic S's of trainability on page 26). The athlete will still be able to improve these capacities if these adaptation periods are missed, however, not likely to their full potential.

It is also important to consider the developmental periods for athletes that best allow for mental, cognitive and emotional development. We should aim to develop the whole athlete – mind & body – during their transition through the stages.

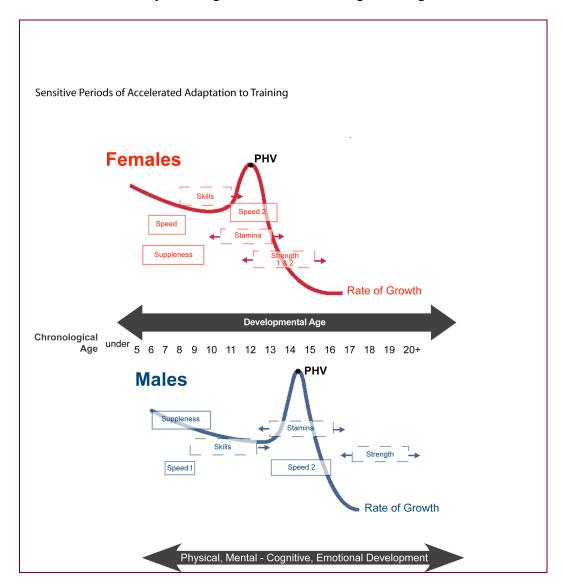


Figure 7: Pacific Sport – Optimal Windows of Trainability (Balyi and Way, 2005)

Ensuring that athletes are training properly during their windows of trainability is crucial to developing our future high performance Ultimate athletes. Coaches and administrators should understand the importance of this training, the periods during which the sensitive times occur, and develop programs that facilitate this development. Separating the females and males during important windows of development is important when developing Ultimate athletes. Ultimate in middle and high schools should, where possible, run single-gendered physical training to account for these development windows.

Peak Height Velocity (PHV) is the maximum rate of growth in stature during growth spurt. The age of the maximum velocity of growth is called the age at PHV. The most intense period of growth for girls occurs between 11 to 14 years; while for boys it is between 12 to 16 years.

Trainability refers to a faster adaptation of a stimulus during growth, development and maturation for young athletes. There is a high degree of variation in the trainability of athletes, depending on genetic and environmental factors.

Periodization

Periodization is the organization of training, competition and recovery into a logical, scientifically based schedule for optimal performance preparation of the athlete and team. By manipulating volume, intensity and frequency of training, athletes can ensure that they peak their athletic performance during specific times in their season. The plan can be broken down into workable units, such as period, phases, mesocycles, microcycles, sessions and units. Periodization takes into consideration an athlete's LTAD stage and identifies priorities relating to the 11 S's (see page 26) and therefore should be reexamined on an annual basis.

All players should consider periodized training in order to ensure the development and maintenance of abilities required to play Ultimate. Coaches should develop a periodized plan, which will help with optimum performance at competition ensuring that all capacities have been adequately addressed. Creating a road map for success involves accurate and effective planning of training, competition and recovery

THE 11 S's of Training

The Five Basic S's:

Skill

Optimal skill training for males is between the ages of nine and 12 and between the ages of eight and 11 years for females. During this window athletes should be developing physical literacy through the development of fundamental movement skills.

Speed

For males the first training window for speed occurs between the ages of seven and nine years and the second window occurs between the ages 13 and 16 years. For females the first training window for speed occurs between the ages of 6 and 8 years and the second window occurs between the ages of 11 and 13 years.

Strength

The windows of trainability for females are immediately after PHV or at the onset of menarche (first menstruation), while males it is 12 to 18 months after PHV.

Stamina (Endurance)

The window of trainability for endurance occurs at the onset of PHV. Aerobic capacity training is recommended before athletes reach PHV. Aerobic power should be introduced progressively as the growth rate decelerates.

Suppleness (Flexibility)

The accelerated adaptation period for flexibility for both genders occurs between the ages of six and 10 years. Special attention should be paid to suppleness during the growth spurt to accommodate for the rapid change in bone and muscle length.

Six more S's that Influence Training and Development

Beyond the physical, technical, and tactical development, there must be consideration for the mental, cognitive, social and emotional development of the athletes. Holistic athlete development (Key Factor 2) depends on a balanced approach to training - building a solid foundation for each successive stage. The optimal development of the first 5 S's cannot occur without attention to six more S's:

Spirit of the Game

Spirit of the Game (SOTG) sets Ultimate apart from other competitive team sports. Over the past 30 years Ultimate has gained a reputation as a highly competitive sport without the use of referees. In Ultimate, the honor system works and the players ensure that SOTG is in full effect at every game or practice. Even amidst the most difficult of discussions players are able to agree upon the solution to continue playing the game. Built into learning SOTG are basic principles of conflict resolution, respect and sportsmanship.

Structure/Stature

The tracking of stature is a guide to developmental age and allows planning to address optimal periods to train stamina, strength, speed, suppleness and skill. Functional movement screening to identify strengths and weaknesses is critical to factor structure and stature into training plans.

(P)sychology

Ultimately, the planning, implementation and refinement of mental preparation strategies for training and competition will have a large influence on performance. Consequently, programs at all stages must develop the psychological aspects of athlete preparation including goal setting, distraction control and dealing with success and failure. This aspect of development must be integrated into the training plan.

Sustenance

Sustenance recognizes the broad range of elements that contribute to replenishing the body, including nutrition, hydration, rest and sleep. Their application in training and daily life depends on the LTAD stage. Underlying sustenance is the need for optimal recovery management on a 24/7 model that places a high degree of importance on the individual's activities away from the field of play. To achieve proper sustenance and recovery, the athlete, coach and parents must monitor recovery through the identification of fatigue.

Schooling

The demands of school must be considered when developing programs and identifying competitions/tournaments for young athletes. This is not only limited to the demands placed by school sports but also recognizing the academic load including assignments, exams, and study schedules. For older athletes, similar considerations must be made for work and family demands. When possible, training camps and competition schedules should complement not conflict, with academic, work and family demands. Overstress of life events over and above training should be monitored carefully. Communication between coaches, teachers and the athletes is crucial.

Socio-cultural

Socialization through sport participation helps broaden an athlete's perspective on a variety of topics such as ethnicity, culture, geography and more. Within the travel schedule, recovery can include education relating to the competition location such as history, geography, cuisine, architecture, music and language. Simply traveling from the hotel to the tournament site will not address this important aspect of development and education. Sport socialization also must address sport sub-culture to ensure societal values and norms will be internalized via sport participation. Overall, socio-cultural activity does not interfere with the competition activities. It is a positive contribution to the development of the person and the athlete.

Stage 1: Active Start Ages: 0-6 years

Objective: Learn fundamental movements and link them together into play

Active start prepares children for a physically active lifestyle by placing them in environments where they are active on a daily basis and are developing physical literacy. Children should experience and practice running, jumping, throwing and catching from an early age. Swimming and well-structured gymnastics programs are also recommended to enhance the full range of basic movement skills and physical literacy. Children should learn fundamental movement skills and fundamental sports skills in each of the four basic environments:

- On the ground as the basis for most games, sports, dance and physical activity
- In the water as the basis for all aquatic activities
- On the snow and ice as the basis for all winter sliding activities
- In the air as the basis for gymnastics, diving and other aerial activities

Ultimate Canada encourages parents and/or siblings to use a disc in unstructured play. Children are quite often exposed to Ultimate during this stage while on the sidelines of youth or adult games in which their family members are involved.

SIDEBAR

Parents!

Speak to staff at your local recreational clubs, school, parks and recreation office, day care and preschool to find out what they offer. Remember – getting your child active at home is a great way to spend time together and help your child develop basic movement skills.

Partners	Areas of	To do
	Development	
Parents/ Administrators	Physical	 Get children Physically active every day for at least 30 minutes (toddler) or at least 60 minutes (preschooler) regardless of weather. Children should not be sedentary for more than 60 minutes at a time except when sleeping Participating in unstructured play for at least 60 minutes and up to several hours per day Learning basic movement skills such as running, jumping, throwing, catching, twisting, gliding, swimming, and balancing
Parents/ Administrators	Psychological	Ensure that games for young children are non-competitive and focus on developing skills in a fun and safe environment. Provide feedback in a positive manner to encourage

		creativity and confidence to try new things.
		Design activities that help children feel competent and comfortable in participating in a variety of fun and challenging sports and activities.
Parents &	Technical	Introduce Ultimate by encouraging children to enjoy
Administrators		throwing one-on-one, practicing catching, tracking the
		disc as it flies, and running.
Parents &	SOTG	Instilling the "basic joy of playing".
Administrators		

At the Park

Players per team	N/A
Competition format	Unstructured skill challenges e.g. throwing as far, high, fast
	as possible and then running to get the disc.
Special rules	Adults are advised to discontinue play when the child has
	lost interest.
Game formats	Simple unstructured play and games that stimulate fun and
	interest.
Equipment required	Dodgebee disc, smaller discs, any additional equipment
	required.

Stage 2: FUNdamentals

Ages: Males 6-9 / Females 6-8

Objective: Learn all fundamental movement skills and introduce basic Ultimate skills in a fun environment. Develop the athlete first – encourage multisport participation.

During this stage, fundamental movement skills are further developed and motor development is emphasized. Children must be provided a well-structured, fun and stimulating environment to develop the ABC's of athleticism (agility, balance, coordination, and speed), hand-eye coordination and time to experiment with basic Ultimate-specific skills. Structured competition during this stage should be avoided – an emphasis should be placed on keeping the child's interest and promoting Ultimate through disc games. Participants should also develop a basic understanding of SOTG.

At this time, Ultimate Canada does not offer formal programs targeted at this stage. As such, UC recommends parents and organizers introduce discs and modified disc games (e.g. Dodgebee, 5v5, smaller field sizes & no-zone clause) into school and camp programs. Children should also participate in a wide-variety of sports, both team and individual, that include throwing, catching, running, and jumping in order to further develop a solid foundation for Ultimate.

SIDEBAR

Parents!

Contact local sports organizations and city services to find out what programs are offered in your area throughout the year. Talk with school sport coaches and gym teachers to ensure that your children are in the right sport environment for their age.

Partners	Areas of Development	To do
Parents, Instructors & Administrators	Physical	 Get children Physically active through unstructured play for at least 60 minutes per day, indoors and outdoors Participating in ambidextrous sports (e.g. athletics, and gymnastics) to develop ABC's Learning to catch, throw, dribble and kick by playing Ultimate, soccer, hockey, tennis, volleyball etc. Developing speed, balance and coordination by biking, dancing, skiing, etc. Developing basic movement skills such as running, jumping, throwing, catching, twisting, gliding, swimming, and balancing

		 Strength training exercises using the child's own body weight as well as medicine and Swiss ball exercises Balance and jumping exercises Flexibility exercises as the accelerated adaptation period for flexibility for both genders occurs between the ages of six and 10 years. Special attention should be paid to suppleness during the growth spurt to accommodate for the rapid change in bone and muscle length.
		 Speed – The first window of accelerated adaptation to speed occurs at ages 6 to 8 for girls and 7 to 9 for boys Power and endurance through games Linear, lateral, and multi-directional speed with the duration of repetitions less than 5 seconds
Parents, Instructors & Administrators	Psychological	Introduce children to
Instructors & Administrators	Technical	It is important to practice fundamental movement skills before sport-specific skills are introduced. The following technical skills can be introduced in an unstructured, multi-sport environment Throwing Basic backhand and forehand grips and throws at short and medium distance Body positioning Throwing without a mark Catching Pancake catch for both stationary catch and step into catch
Parents & Instructors	Lifestyle	Teach children concepts about • Nutrition – eating in a healthy way e.g. starting

		the day with breakfast and avoiding fast-food abuse • Hydration • Regeneration Participation in a child's preferred sport should occur once or twice a week, so long as there is participation in many other sports 3 or 4 times per week to ensure future excellence. Children should also be encouraged to partake in active play – e.g. tag, biking, etc. Ensure that activities revolve around the school year and are enhanced by multi-sport camps during summer and winter holidays.
Parents & Instructors	SOTG	Emphasize that players should treat others as they would want to be treated and respect others. Emphasize a safe play environment and non-contact. Encourage positive communication between players through sideline support Engage teams in developing creative and fun team names and cheers. Practice cheering and encouraging opponents when they make a good throw or catch. Shake hands at the end of every session.

At the Field

Players per team	N/A
Competition format	Unstructured skill challenges e.g.
	throwing as far, high or fast as possible
	and then running to get the disc.
Special rules	Ensure that all participants have equal
	time touching the disc. Non-contact
	should be emphasized.
Game formats	Simple unstructured play and games
	that stimulate fun and interest in disc
	sports. All games should allow every
	participant to touch the disc several
	times and focus on fundamental skills.

	Indoor/Outdoor.
Equipment required	Dodgebee disc, smaller discs, shoes or
	cleats, cones and any additional
	equipment for targets and fun games.
Session length	1 hour/week
Season length	Schools: 1-4 weeks
	Clubs: 8-12 weeks
	Multisport camps: 1-5 sessions

Coaching Tip: Focus on skill development using creative and fun ways to develop skills used to play Ultimate.

Stage 3: Learn to Play

Age: Males 9-12 / Females 8-11

Objective: Learn general Ultimate skills and develop understanding of Spirit of the Game in a fun and cooperative environment.

The Learn to Train stage focuses on mastering basic Ultimate skills through training. Structured competition is introduced during this stage to test and refine skills learned in practice. It is imperative that coaches keep their focus on training and using competition to see if athletes can apply what they learned in practice in a game setting. Participation in other sports is still encouraged with the athlete starting to narrow their focus to three sports.

An environment that promotes Spirit of the Game allows the athlete to develop emotional control, communication skills, and sportsmanship. Coaches and parents begin to introduce training elements including: warm-up and cool-down, stretching, hydration, nutrition, recovery and regeneration, and mental preparation.

SIGN UP!

Ultimate is offered through schools and clubs with coaches trained at the Community-Initiation level. Ultimate is also played at camps, recreational centres, and through recreational clubs.

Partners	Areas of	To do
	Development	
Parents Coaches	Physical	All physical training should incorporate elements of speed, flexibility and skill.
		 Introduce Hopping and bounding exercises or routines, or wheeling up gradients, to aid in strength development Single periodization (see periodization – page 25)
		 Strength using exercises that incorporate the child's own weight as well as with light medicine balls and Swiss balls. Endurance through games and relays Speed by using specific activities that focus on agility, quickness and change of direction during the warm-up. For females the second training window for speed occurs between the ages of 11 and 13. Flexibility through exercises. The accelerated adaptation period for flexibility for both genders

		occurs between the ages of six and 10 years. Special attention should be paid to suppleness during the growth spurt to accommodate for the rapid change in bone and muscle length.
		Keep track of growth spurts before PHV by regularly measuring height of children and looking for a sudden increase. Growth spurts of girls and boys lasts approx 12 months.
Parents & Coaches	Psychological	Opportune age for learning motivation and visualization while focusing on fun and enjoyment
		Create an environment and training that encourages children to
		 Make decisions in practices and games Develop and display confidence in game play and skills
		 Develop team spirit – learn how to relate to different groups of peers Test and develop their ability to concentrate
		Introduce concept of
		 Important psychological skills to develop Deliberate effort: the ability to deliver effort and enjoying the feeling of effort during the activity itself Responsibility: the ability to associate joy with effort and "competition" Success: the ability to take risk and accept failure as a normal occurrence in sport development. Decision-making: the ability to evaluate a given situation based on the variables presented.
Coach	Technical	Throwing Be able to complete basic throws and catches with accuracy to a stationary and moving target.
		Introduce

		• Compatibility C1
		Correct pivot and basic fakes
		Throwing down, up, and cross-wind
		Throwing with a mark
		 Spin and flight dynamics
		Catching
		Introduce:
		 Reading the disc
		• Jump catch
		Using body to shield incoming disc
		Run-through catch
		_
		• Layout catch
		One- and two-hand catch above head and below
		knee
		Attacking the disc
		 Catch with coverage
		Cutting
		Positioning – before, during, and after cut(s)
		• Position-specific cutting - reset, boulder, deep, and
		under
		Concepts - angles, timing, clearing, and making
		space for other cuts
		1
		Fakes for cutting
		M 1:
		Marking
		 Basic mark body positioning (no force)
		• Calling "up"
		 Instructions for guarding handlers vs. cutters
Coach	Tactical	Offence
		Introduce
		 Vertical and horizontal stacks
		Resetting the disc
		Swinging the disc
		 Basic set plays (used to identify where initiating cuts
		should come from e.g. back or front of stack in
		<u> </u>
		endzone)
		Defence
		Defence
		Introduce
		 Person to person defence
		 Communication
		Help defence
		General
L	I.	I

		Introduce On-field communication Space & field sense Disc position Sideline support Field sense Capitalizing on opportunities Offense and defence transition
Parents & Coach	Lifestyle	Introduce the player to
Coach, Athlete & Parents	SOTG	Introduce BE CALM strategy to help players develop emotional control and communication skills. Athlete should understand the basics of Spirit of the Game. Emphasize a love for the game. Emphasize that players should help each other develop by giving everyone a chance to catch, throw, pull or pick up the disc after a turn over, time out or pull. Spirit games can be played between teams after games.

Players per team	8-12
Competition format	Small-sided exhibition games are
	encouraged. Bring together 2-3 teams
	for 20-30 minute games. Team not

	playing in game should mun a practice
	playing in game should run a practice
	session. A skills competition could also
	be included.
	One tournament per season with games
	of 30-40 minutes followed by a bye.
	Tournament should be hybrid events
	(skills competition and games).
Special rules	Introduce children to the simple rules of
	Ultimate:
	Field setup
	Initiating play
	• Scoring
	Moving the disc
	Change of possessionSubstitution
	• Non-contact/Fouls
	Self-officiating
	All players should be selected to any
	± •
	teams/programs. Zone play restricted
	until high school (grade 9-12). No
	statistics recorded.
Game formats	Indoor and outdoor small-sided games
	- 4v4 or 5v5 with game length/time
	based on ensuring equal substitution.
	Skills games included at all
	games/practices.
	Adding challenge – trying to pass to
	every player before scoring (cycle the
	disc).
Specialization	All players should play equal time and
	try all positions. Each child should get a
	chance to pull, pick up the disc after
	turnover, etc.
Equipment required	Lighter weight (140-145g) and smaller
24mbmont rodan on	diameter discs than standard, shoes or
	cleats, cones, uniforms or pinnies.
Training to game ratio	70:30
Recommended training times	Session length: 1 hour
Recommended training times	
Cassan langth	Ultimate sessions per week: 1-2
Season length	4-12 weeks

Stage 4: Train to Play

Age: Males 12-16 / Females 11-15

Objective: To focus on training the whole Ultimate athlete based on his/her physical, technical, tactical, mental, cognitive, and emotional development.

The Train to Play stage focuses on preparing the athlete for the demands of the sport both physically and mentally. Through physical training the athlete builds an anaerobic and aerobic base and develops speed and strength. Mental training supports the athlete through this increase in training intensity ensuring that the athlete is mentally strong and able to concentrate during training periods. An increased understanding of tactics and strategies used in Ultimate will assist in the continued development and consolidation of skills learned in previous stages. Players in this stage have fully internalized Spirit of the Game and practice it on the field.

Participation in sport is narrowed to two sports that are complimentary. It is also by the end of this stage that athletes transition from T2P to T2C or T2P into Ultimate for Life for more recreational participation in Ultimate.

PLAY ULTIMATE!

Ultimate is offered through school or club based leagues. Coaches are trained at the Community-Initiation level. Provincial team programs are also available in certain provinces.

Partners	Areas of Development	To do
Parents Administrators	Physical	Individualized fitness programs should be created for each athlete based on onset of PHV.
Coaches		 Introduce Basic exercises for core strength and injury prevention Flexibility training given rapid growth of bones, tendons, ligaments, and muscles Speed development for females (at the start of this stage) and males (at the end of this stage) Consider the two windows of accelerated adaptation to strength training for females: the first occurs immediately after PHV and the second begins with the onset of menarche. For males, there is 1 window and it begins 12 to 18 months after PHV. After the onset of PHV, introduce Athletes to training in a gym with free weights (strength development)

		 Aerobic training – the window for trainability for endurance occurs at the onset of PHV. Aerobic capacity training is recommended before athletes reach PHV. Aerobic power should be introduced progressively as the growth rate decreases. Average for girls reaching PHV is 12 and boys 14. Develop Jumping technique. Special attention should be paid to knee position at landing to prevent ACL injury Consolidate Endurance Speed (acceleration, deceleration, agility, endurance). The second training window for speed occurs between the ages of 13 and 16 years for boys and 11 and 13 years for girls Sprinting, COD Balance
Parents, Administrators & Coaches	Psychological	 Mental skills introduced in the last stage should continue to be practiced, refined, and incorporated into many types of situation such as practice, dry-land training, before competitions, and during competitions. Introduce Self-reflection after training and competition Development of pre-competition routine Ideal performance state – "what works" for the athlete During this stage the athletes should learn to cope with the physical and mental challenges of competition. To achieve this the athlete should Take personal responsibility for training, preparation, performance and recovery Bring consistent effort to training and competitions Get involved with coaches in decision-making (drills, exercises, training plan, etc.) Be coachable: accept constructive criticism and

		 work with other coaches or athletes Have a training diary Have personalized expectations from their coach based on their personal physical capacities and skill level Team development (team building, positive and supportive atmosphere, leadership development)
Coach	Technical	Continue to develop and consolidate skills learned in previous stages. Throwing Introduce • Varied release points (backhand and forehand) • Inside-out and outside-in (backhand and forehand) • Medium and long distance hammer • Basic scoober • Off-hand throws • Push pass • Blade • Good hang time and consistency on pulls • Advanced fakes (includes balance and extension) • Throwing against a mark • Break-mark throws • Down-, cross-, and up-wind long throws • Throwing with spin and "touch" Catching Continue to develop and consolidate skills from Learn to Play and FUNdamentals. As catching is an important component of the game the refinement of catching skills occurs in the following stage. Cutting
		Introduce: Laying out Recognizing defence and adapting Mirror cuts Boxing out
Coach	Tactical	Defence Introduce: • Forcing (backhand, forehand, middle, straight up, sideline) and holding the force

		 Flashing (no huck, no up the line) Strategic marking and pressuring the thrower Foot blocks Person-to-person/body D on handlers and cutters Switching Positioning to contain after the catch Field awareness Footwork Poaching Baiting Containing Different D strategies for defending different positions Basic zone and zone positions (mark, cup, mid & deep) Offense Advanced strategies (vertical & horizontal) Split stack Basic zone offense
Parents & Coach	Lifestyle	 Educate the player regarding Cultural and lifestyle habits Smoke-free environment Drug-free sport Proper nutrition and hydration Self-management Injury prevention & injury care
Parents & Coach	SOTG	Focus on Reinforcing the BE CALM strategy Taking responsibility for actions Respect for others Conflict resolution

Players per team	10-14 (league) and 12-16 (tournament)
Competition format	League play: 1-2 games per week
	Tournaments: High school - maximum 3 games per day, maximum 90 min. games
	Junior High: maximum 3 games per day, maximum 75 min.
	games

One-two tournaments a season. No more than two games in a row during a tournament.	
Modified field size and game length for early stage athletes.	
No zone until high school.	
Indoor and outdoor small-sided games (4v4, 5v5 and 6v6) and skills challenges early in the season and transition to full field games later in the stage/season.	
Small-sided games can be used as training later in the season/stage as well to increase contact with disc. Vary field size for lessons – smaller fields make person-to-person coverage easier while larger fields make offensive movement easier.	
Skills games included at all games/practices.	
Play multiple positions and teach basics of each position at	
early on in the stage. Start focusing on 2-3 positions at high	
end (e.g. handler vs. cutter; deep/mid/under cutter; handler vs.	
cutter mark.	
Full-size discs, cleats, cones, uniforms or pinnies.	
60:40	
• 1-2 practices	
• 1-2 weight sessions (high repetition e.g. 3 sets @ 15 repetitions before age 14. Bodyweight exercises (EG:	
push-ups) are desirable at all ages, but may be most appropriate before age 14. All weight training should have a functional component that relates to the game of Ultimate.	
 2-3 sessions involving running and/or complementary sports 2-3 throwing sessions 	
 Additional stretching (static and dynamic) sessions Note that elements can be included as part of practice or joined with other sessions. 	
8-16 weeks (combination of indoor and outdoor based on region)	

Stage 5: Train to Compete

Age: Males 16-19 / Females 15-18

Objective: Perform basic and Ultimate-specific skills under a variety of competition conditions. Build strong support network for athletes to ensure continual development.

During the Train to Compete stage importance is placed on creating a strong support network to assist the athlete with personal development as demands in and outside of Ultimate increase. Athletes at this stage are committed, competitive and focused on performance at an advanced level. They participate in year-round training to refine and consolidate physical, technical, psychological, and tactical skills. They remain a versatile Ultimate player while consolidating position-specialized skills.

As the athlete matures they begin to demonstrate leadership skills and will often assist their coach and/or senior teammates in developing the team as a whole. Athletes in this stage are also learning to achieve balance with other important roles such as schools, university, part-time jobs, family, etc. They must be highly regulated in regards to their recovery activities to effectively meet the heavy demands of training and competition. As the training volume and intensity increases, the athlete may need to establish a relationship with a pre-habilitation/rehabilitation team that could include physiotherapists, massage therapists and sports medicine doctors.

Elite-level adult teams may express interest in recruiting well developed, skilled, and mature players in the Train to Compete stage. Care must be taken to recognize and protect the long-term interests of each player. Risks and issues can be avoided by ensuring that the development model remains player-centred.

Ultimate is offered in high school, university, camps, competitive clubs, provincial and national teams.

Partners	Areas of	To do
	Development	
Coach &	Physical	All physical training activities should follow a properly
Administrators		periodized annual training program.
		Refine elements from T2P stage while developing an
		understanding in the importance of the following factors
		on physical development:
		 Prehabilitation
		Rehabilitation
		• Rest
		• Sleep
		Nutrition

Parents, Coach	Psychological	The goal is to have enough fitness to manage the rigors of competition and training without injuries or burnout. Mental skills introduced in the last stage should
& Administrators	1 sychological	continue to be practiced, refined, and incorporated into many types of situation such as practice, dry-land training, before competitions, and during competitions.
Coort	Tachwing	 Love the game and thrive on competition Demonstrate confidence in game play and skills Exhibit advanced mental preparation Demonstrate enhanced self-awareness and application of effective mental strategies in preparation for competitive play Learn to value competitions and putting performance first Consistently give 100% effort Revise mental skills such as imagery and visualization Develop activation and relaxation skills Develop positive self-talk and confidence Integrate mental skills in daily activities Gradually learn to self-coach and actively participate in his or her own development Reflect during post training and post competition to enhance future performances Work with coaches in a more collaborative manner Provide positive support for teammates, play well with others, etc.
Coach	Technical	Throwing & Catching Players are able to complete throws and catches in competitive play with a high degree of consistency. Players are consolidating more advanced throws through training and use in competition. Cutting Players consolidate all cutting skills while continuing to develop skills related to their ability to recognize the actions of their defender.

		Defence Players refine basic skills (e.g. marking) while developing and/or consolidating more advanced defensive skills (e.g. switching).
Coach	Tactical	Players show a thorough understanding of offensive and defensive strategies and tactics. Introduce • Advanced zone offence and defence • New offences • Zone: trapping • Zone to person-to-person transition Continue to develop and consolidate tactics explored in earlier stages.
Coach & Administrators	Lifestyle	 Educate the athlete in Recovery and regeneration principles Injury prevention training and behaviour Tapering and peaking strategies Adapting to new training and competition environments Prioritization and yearly planning Lifelong skills of fair-play, dedication, integrity, leadership, time management, organization, pursuit of excellence, teamwork and health awareness Travel organization and smooth adaptation to other countries and cultures Being a team player during training and travel Choosing proper performance gear
Coach	SOTG	Athlete and team demonstrate a sophisticated understanding and application of Spirit of the Game and the rules. Athlete exhibits good SOTG during training and competition. Coach provides opportunities for athletes to practice exhibiting SOTG.

Players per team	16-22	
Competition format	Tournaments: High school (1-3 tournaments/season)- maximum 3 games per day, maximum 90 min. games. No more than two games in a row during a tournament. University (2-4 tournaments/season) – maximum 3 games per day, maximum 100 min. games Club (2-4 tournaments/season) - maximum 3 games per day, maximum 100 min. games	
Special rules	None – USAU 11 th edition rules (potential to move to WFDF rules)	
Game formats	Games may be both indoors and outdoors. Regular game format on full field for competition. Use small-sided games for portion of training to increase contact with disc and to modify game in order to compete indoors. Includes 4v4, 5v5 and 6v6. Skills games included at all games/practices.	
Specialization	Performing in one position while maintaining others	
Equipment required	Cleats, disc, uniform, cones, and water bottle.	
Training to game ratio	40:60	
Recommended training each week Season length	 2-3 practices 1-2 weight sessions (All weight training should have a functional component that relates to the game of Ultimate.) 2-3 sessions involving running/sprinting/agility 2-3 throwing sessions Additional stretching (static and dynamic) sessions Note that elements can be included as part of practice or joined with other sessions. 4-5 months/season with athletes competing in 2-3 seasons a 	
Season length	4-5 months/season with athletes competing in 2-3 seasons a year. Indoor Ultimate is encouraged during winter months when weather does not permit outdoor play.	

Stage 6: Learn to Win

Age: Males 20-23 / Females 19 – 21

Objectives: To integrate higher levels of physical conditioning with execution of advanced Ultimate-specific technical and tactical preparation under competitive conditions. Consolidating mental, cognitive and emotional development.

Athletes in the Learn to Win stage have a strong understanding of the physical, psychological, technical and tactical demands of Ultimate and have experienced play in a competitive environment. During this stage, the athlete physically reaches maturity and continues to develop an understanding of Ultimate and the position-specific requirements and sport-specific fitness required to play. The athlete must be committed as the focus is on the refinement of skills through training and pressure situations.

Athletes should have a better understanding of time-management and have a solid support group in place to continue through this stage. They are better able to manage outside stress and ensure that they have constructive training sessions. During this stage athletes are exposed to increased pressure as individuals (selection to National team) and as teammates (winning National championships). They may also face competing interests as they play on their university/college team and club team. The athletes are older and more mature, making them likely candidates to take on a leadership role on some or all of the teams that they are playing on.

Athletes in this stage should be experienced at achieving balance with other important roles such as school, university, part-time jobs, family, etc. They can self-regulate their schedule to ensure sufficient recovery activities are completed to effectively meet the heavy demands of training and competition.

PLAY ULTIMATE!

Find out what your university/college offers on campus. Find out what competitive clubs exist in your area and check CanadianUltimate.com for information about our national teams.

Partners	Areas of	To do
	Development	
Administrators & Performance Enhancement	Physical	Focus on increasing quality/intensity and sport/individual specific training. Emphasis placed on preventing injury through appropriate training.
Team		Further refine flexibility, correct warm-up and cooldown, agility, aerobic and anaerobic endurance, strength, core strength, stability and balance.
Administrators &	Psychological	Optimal performance becomes the major objective, but still never at the cost of player development. Players

Performance		enhance performance through	
Enhancement		Goal setting (long term, short term and daily)	
Team		Focus on distraction control	
		Activation/arousal control	
		Emotional stability	
		Positive self-talk	
		• Visualization	
		• Self-assessment	
		 Focus on effort and execution (process not outcome) 	
		Being a team player	
		In order to prepare athlete to compete under stressful	
		and pressure situations during a game, coaches need to create these situations/conditions in practice. Coaches	
		should also:	
		Understand that athletes are ready to assume	
		leadership roles and should provide those	
		opportunities	
		 Promote effective communication skills between players and coaches 	
		Continuously communicate specific roles &	
		expectations to players in cases where the	
		athlete is demonstrating difficulty in accepting	
		roles	
		Create opportunities to strategize and exercise	
		problem-solving skills with athletes	
Coach	Technical	The athlete	
		Is able to correct and refine advanced offensive	
		and defensive skills themselves	
		 Can consistently complete throws and catches in competitive play 	
Coach	Tactical	Refines field awareness and sound decision-making	
		skills while applying advanced game strategies in a	
		supportive environment.	
Coach	Lifestyle	Coaches should	
		 Monitor training to ensure that over-training and 	
		over-stress are eliminated	
		 Set goals with the athletes/team 	
		• Demonstrate respect for the athletes, give	
		direction and provide structure	

		 Provide opportunities for independent social interactions The athletes should Assume responsibility and accept the consequences of their actions 	
		 Continue to balance sport, social, school, work, and family obligations through planning and time-management Follow nutrition guidelines Prevent and take care of injuries Begin to understanding the importance of their involvement within the Ultimate community as a role model to youth 	
		Note that athletes may demonstrate major changes in their interests, hobbies and physical activities during this stage.	
Coach	SOTG	Athletes and teams demonstrate a sophisticated understanding and application of Spirit of the Game and the rules. Athlete understands how to reinforce a spirited mindset through training. Coach provides opportunities for athletes to practice exhibiting SOTG with scenarios and conflict resolution techniques.	

Players per team	22-28		
Competition format	Full games in international tournament format (1-2 games/day)		
	over 5-7 consecutive days.		
	Full games in national tournament format (3-4 games per day -		
	120 minutes per game).		
	Maximum 4 and a half hours for tournament days		
	Two to four tournaments per year.		
Special rules	None –USAU 11 th edition or WFDF rules. Field adjustments		
	based on competition training – i.e. WFDF field for international		
	competitions and national championships. USAU 11 th edition		
	field size for USAU series.		
Game formats	Regular game format played both indoors and outdoors. Indoor		
	play may also include small-sided games – 4v4, 5v5, 6v6.		
Specialization	Position specific training		
Equipment required	Cleats, team uniform, disc, cones		
Training to	40:60		

Competition ratio			
Recommended	• 1-2 practices		
training each week	• 2-3 weight sessions (All weight training should have a		
	functional component that relates to the game of		
	Ultimate.)		
	• 2-3 sessions involving running/sprinting/agility		
	• 2-3 throwing sessions		
	Additional stretching (static and dynamic) sessions		
	Note that elements can be included as part of practice or joined		
	with other sessions.		
Season length	Annual (should include use of indoor facilities for training		
	during months when outdoor space is not available)		

Stage 7: Train to Win

Age: Males 24 and older / Females: 22 and older

Objectives: To refine Ultimate skills, physical condition, mental capabilities and understanding of strategies as they evolve. Exhibit Spirit of the Game during high-level international competition.

The athlete has reached the pinnacle point in the excellence pathway and is able to execute a wide variety of advanced skills and tactics under pressure in high-level national and international competition. Physical, technical, tactical and psychological capacities have been developed and the athlete continues to follow an individualized training plan for maintenance, remedial work and recovery. Teams at this stage require opportunities to compete at a high level to advance their tactical skills under pressure.

The player should

- Take responsibility to be ready to train and practice with high intensity and focus
- Train and compete in specific positions and roles
- Work with teammates and coaches to set goals and peak for major competitions
- Understand and demonstrate advanced understanding of national and international Rules and Spirit of the Game
- Allow frequent preventative breaks to prevent physical and mental burnouts

Athletes are required to travel both within and outside of Canada to ensure that they are competing in high-level competition year-round. This may require players to be a member of several teams during the year.

REPRESENT CANADA!

Find out more about our Canadian national teams – Canadianultimate.com. Be a part of your local elite team and attend selection camps for our women's, open, mixed, Masters (Women's & Open) and Grand Masters (Open) teams.

Partners	Areas of	To do
	Development	
Administrators & Performance Enhancement Team	Physical	All physical training activities should follow a properly periodized annual training program. Utilize single, double, triple and multiple periodization as the optimal framework of preparation.
1 cani		Refine recommendations from Train to Compete and Learn to Win stages.
		The goal is to demonstrate a superior fitness level that allows the athlete to excel during competition and training avoiding and/or preventing injuries or burnout.

Administrators & Performance Enhancement Team	Psychological	 Demonstrate enhanced self-awareness and application of effective mental strategies in preparation for competitive play Continually pursue excellence; aim to become a world-class athlete representing Canada at the highest level of international competition Deliver an optimal performance on demand Be willing to learn new ways of doing things, adapt to new strategies and continuously strive for improvement Be creative and innovative in problem solving Demonstrate strong work ethic and be mentally tough Be focused on the "big picture" (Perspective) Demonstrate ethical behaviour through SOTG Be willing to assist his/her team through various leadership roles when required Demonstrate consistent execution of tactics and skill in a variety of high-pressure game situations 	
Coach	Technical	All technical skills have been developed. Players focus on refining skills and demonstrating • Consistency in competition (quality of execution) • Good decision-making under pressure • A personal interpretation of technique	
Coach	Tactical	Refine field awareness and sound decision-making skills. Able to apply and adapt to advanced game strategies. Develop understanding of opponent-specific strategies, scouting and post-game analysis.	

Coach	Lifestyle	 The athlete is able to balance/achieve Post-secondary education Financial stability Social-life balance (friends, family, personal relationships, teammates) Transitioning into new roles in Ultimate (coach, observer, administrator or Ultimate for Life player) Successful mentoring relationships within the Ultimate community as a role model to youth 	
Coach	SOTG	Athletes and team demonstrate a sophisticated understanding and application of Spirit of the Game and the rules. Athlete understands how to reinforce spirited mindset through training. Athlete understands the subtle differences of SOTG at WFDF competitions.	

Players per team	World games: 13		
- any case per conser	Club/National team: 22-28		
Competition	Full games in international tournament format (1-2 games/day)		
format	over 5-7 consecutive days.		
	Full games in national tournament format (3-4 games per day –		
	120 minutes per game).		
	Maximum 4 and a half hours for tournament days		
Special rules	None –USAU 11 th edition or WFDF rules. Field adjustments		
	based on competition training – i.e. WFDF field for international		
	competitions and national championships. USAU 11 th edition field		
	size for USAU series.		
Game formats	Regular game format played both indoors and outdoors. Indoor		
	play may also include small-sided games – 4v4, 5v5, 6v6.		
Specialization	Position specific training		
Equipment	Cleats, team uniform, disc, cones		
required			
Training to	25:75		
Competition ratio			
Recommended	• 1-2 practices		
training each week	• 2-3 weight sessions (All weight training should have a		
	functional component that relates to the game of Ultimate.)		
	• 2-3 sessions involving running/sprinting/agility		
	• 2-3 throwing sessions		
	 Additional stretching (static and dynamic) sessions 		
Season length	Full year with athletes participating on multiple teams during		
	various seasons.		

Ultimate for Life

All ages

Objective: Provide opportunities at each level to be involved at any capacity (player, coach, or volunteer).

The Ultimate for Life stage represents 90% of Ultimate players in Canada. Players enter this stage at a variety of ages to engage in recreational activity in a fun and social atmosphere while also maintaining a level of fitness. As the level of commitment is less than in other stages, many athletes see U4L as a viable option to continue playing Ultimate while balancing academic, professional, and family responsibilities.

Transfer of knowledge is a key component of this stage, as trained Ultimate players can remain active as players while also sharing their expertise as coaches, mentors, volunteers and administrators. Retention of youth and adult players from the excellence pathway is critical for the growth and sustainability of our sport.

Many participants in Ultimate for Life are classified as late-entry athletes having been brought into the sport without developing a sport specific skill foundation. These participants are highly valued members of the Ultimate community as they contribute to the growth of leagues. By participating in various leagues and skills clinics, these players can begin to build their knowledge of Ultimate and skills in order to further enjoy the game.

Programs and leagues targeted at Ultimate for Life participants are offered through schools, universities, clubs and local associations. As part of their mission, some Ultimate communities create space for all newcomers to join a league or local event. Many leagues are run by a dedicated group of volunteer administrators and coaches.

Areas of	To do	
Development		
Physical	Age specific. Adults should aim for a minimum of 60 minutes moderate daily activity or 30 minutes of intense activity three times a week. Participation in a variety of sports and/or physical activity is highly recommended.	
Psychological	The focus is on having fun, being part of the team and stress release as part of physical activity.	
Technical	Learn new skills or refine skills that have already been acquired.	
Tactical	Basic tactics are sufficient to play and enjoy the game at a recreational level.	
SOTG	Learning and demonstrating respect, conflict resolution skills, inclusiveness, and fair play are to always be refined and practiced. Players should continue their understanding of the rules as well as being aware of changes to the rules.	

Ultimate Canada recommends using modifications specified in stages 3-7 to target players at different developmental levels appropriately. Below are additional modifications recommended for specific competition levels.

Special rules	Adult play should follow USAU 11 th edition rules or WFDF rules. Field size will vary based on number and age of players. Indoor play has a number of added rule variations including "change on the fly" that involves continuous play.
Game formats	Game time should run 60-90 minutes based on schedule and fitness levels. Format can include 7v7, 6v6, 5v5, and 4v4 played indoors and outdoors. Adjustments to rules and field size adjust accordingly. Variations in the game are encouraged at this stage so that facility availability is maximized and games are modified to meet the needs of the athletes.
Specialization	Participants encouraged trying all positions.
Equipment required	Cleats or running shoes, disc(s), and cones.
Recommended training times	Varies on the player's interest in preparing for play. Attending games early to practice throwing and physical prepare is recommended.
Season length	Year round – based on league dates. In colder climates Ultimate should be played indoors during the winter season.

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LOOKING AHEAD

Implementing LTAD will require changes at every level and assistance from coaches, parents and administrators. Together, we can work to ensure that athletes are always our primary focus when developing and delivering programming across Canada. LTAD is an opportunity to prepare our athletes at every level and assist them in maintaining a lifelong passion for sport.

The first step in implementing LTAD is **education**. We encourage parents, coaches and administrators to learn more about LTAD and the Active for Life movement. Developing athletes and active Canadians starts with developing physical literacy at a young age. It is the first three stages of the LTAD that prepares children and youth for future participation in any sport or activity. We also encourage parents, coaches and administrators to become familiar with their role during each stage of our LTAD.

Ultimate Canada will continue to work with administrators to increase the availability of developmentally appropriate programming for all stages. We will continue to work at developing our NCCP courses to better educate and prepare our coaches for their involvement along the pathway.

We encourage everyone to start dialogue regarding our LTAD in order to further refine this document. Our LTAD is a living document that will be updated to reflect changes in our sport as it grows and develop over time.

Appendix

The Ultimate Matrix – the Learning and Development Continuum

The following matrix document outlines the skills and abilities that are the focus of each LTAD stage. Ultimate skills should be addressed as a sequential learning continuum that includes the following stages: introduce, develop, consolidate, refine and maintain. These terms are defined below.

This matrix provides a sport curriculum for Ultimate – a framework that structures coach education that will influence player development. Each skill and ability has a specified stage that identifies a timeframe for its inclusion in the overall training program based on the player's stage of development. The following pages provide a matrix that includes a progression of technical, physical, tactical, and psychological skills and abilities. It is important that coaches and athletes review these skills and abilities while keeping in mind that an integrated training, competition and recovery program is the best way to ensure that there is reinforcement within practice and game environments.

Introduce – Players understand the fundamental movements needed to execute the skill, physical ability or tactic. It is presumed that the skill, tactic or physical ability will continue to be developed in later stages.

Develop – It is through repeated practice of the correct performance of the skill, ensuring that the basic execution becomes consistent. Performing in a variety of conditions and situations

Consolidate - The player is able to combine a number of skills and movements in a coordinated way to execute a tactic and has a high success rate.

Refine/Maintain - The player is able to combine a skill with other skills and integrate it into aspects of the game. The athlete begins to develop his/her own unique and creative playing style and has the ability to link one skill with another in training and under pressure in a competitive situation. The player can easily perform the technical or tactical and no longer needs to work on it.

* - An asterix is used to indicate the possibility to progress to the next stage within a skill in either the early or late part of the LTAD stage. An asterix pre- means early introduction while an asterix after indicates moving on to the next level if a player(s) are ready later in their stage.