



WRESTLING CANADA LUTTE

Long-Term Athlete Development Model



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TABLE OF CONTENTS

Foreword	2
What is Long-Term Athlete Development?	3
The Long-Term Athlete Development Model	10
An Integrated Wrestling Development System	21
The Future	24
Resources	25
Closer Look:	
Periods of Enhanced Trainability	26
Glossary	27
Using the Wrestling Canada Lutte LTAD DVD	29

FOREWORD



Wrestling Canada Lutte has created this Long-Term Athlete Development model to be a blueprint for all stakeholders. We have done this as part of a national initiative in which every sport in Canada has developed a similar model. The support of our funding partner, Sport Canada, has made creation of the Wrestling LTAD possible.

The implementation of Long-Term Athlete Development is a milestone for wrestling and for Canadian sport. For the first time every sport organization is building its plans around a common framework that aligns the sport system, integrates health and education with sport and physical activity. This document was developed with the input of Canada's wrestling experts, with the assistance of the LTAD Expert Group, and drawing on the experience and best practices of other sports.

This document outlines the key principles of our LTAD Model. The details of how LTAD will be implemented will be developed in the next phase. The successful implementation of the LTAD model will lead to better and more skilful wrestlers, and a thriving sport supported by quality coaches, officials and volunteers at all levels in Canada.

We, the Wrestling Associations of Canada, agree that LTAD will be the basis for wrestling development in Canada:



WHAT IS LONG-TERM ATHLETE DEVELOPMENT?

What is the *best* way to develop a wrestler?

Long-Term Athlete Development answers that question. LTAD is a new wave in athlete development, based on the integration of sport science research with experience in working with athletes and coaches to develop a comprehensive set of development principles. LTAD takes the concept of periodization (the integration of competition, training, recovery, nutrition, and other elements of preparation to create a long-term training plan) to the next level, by integrating preparation over an entire career or lifetime, and considering the holistic development of the individual as well as his/her development as an athlete. Today, every Canadian sport organization is using LTAD as the basis for their long-term planning. More information can be found in the document “Canadian Sport for Life”, as well as other LTAD resource papers published by the Canadian Sport Centres and available at www.ltad.ca.

A key LTAD premise is that participants will not only be more successful in sport, but healthier throughout life if they develop “physical literacy” at a young age – a wide range of skills that include movement, balance, throwing, catching, hitting, etc. The development of sound physical literacy skills, followed by ongoing learning and training introduced during “sensitive periods of trainability” keyed to developmental ages and stages, is necessary for any athlete to reach his or her full potential. Missing a step, or introducing the “S’s” (stamina, strength, speed, skill and suppleness) too early or late, restricts the athlete’s potential and makes reaching the highest levels of performance more difficult. However, by understanding the 10 Key Factors of LTAD, coaches can help athletes of any age participate and achieve their aspirations more effectively.



The 10 Key Factors of LTAD

Ten key factors influencing optimal athlete development have been identified:

1. *The FUNDamentals*: Basic physical literacy is the foundation for later athletic success. All athletes, regardless of their sport, are more likely to succeed if early in life they developed a wide range of movement, balance and object control skills.
2. *Specialization*: Broad-based skills and abilities must be developed first. Premature specialization may contribute to lack of essential skill development, overuse injuries, early burnout and early retirement from sport and physical activity.
3. *Developmental Age*: Young athletes may be early, average or late maturers in a range of physical, mental, cognitive and emotional qualities. It is essential to base athletic training on developmental age, not on chronological age. All too often, early maturers are identified for special attention and development, while it is the late maturers who may have the greater potential to become top athletes. It is also important to recognize that early physical maturity does not imply the athlete is mentally or emotionally prepared for the challenges they appear ready to take on.
4. *Trainability*: Trainability is the responsiveness of individuals to training at different stages of growth and maturation. Sensitive periods of trainability for the “S’s” of Stamina, Strength, Speed, Skill and Suppleness occur at different times- for example, stamina and strength trainability is linked to developmental age, while speed, skill and suppleness (flexibility) are linked to chronological age.
5. *Physical, Cognitive, Mental and Emotional Development*: A holistic approach to athlete development, considering all of these factors, is required for the best results. In addition to the five “S’s” of physical development, five additional “S’s” including Structure/stature (body type and growth), pSychology, Sustenance (adequate nutrition, hydration and rest), Schooling (and stress), and Sociocultural factors must be considered. At any stage, over-emphasis on physical training and winning

may not equip the athlete for the all challenges of high performance or for life outside sport. Developing the whole athlete, including character, ethics, and so on, should be the objective of every program.

6. *Periodization*: Periodization is the organization of a training program by manipulating modality, volume, intensity and frequency of training over long-term (multi-year) and annual time frames, using training, competition and recovery periods. LTAD, with its focus on lifelong development, sets context and direction for a sound, periodized training program.
7. *Competition Calendar Planning*: Optimal sport-specific competition calendars are required for all stages of LTAD. Too much competition, especially at younger ages, can detract from development of skills and fitness. Optimizing the competition calendar to meet athlete development needs, while it may create logistic challenges, is essential to LTAD.
8. *The 10-Year Rule*: Research has concluded it takes a minimum of 10 years and 10,000 hours of training for a talented athlete to reach elite levels. It is all too easy to jeopardize long-term development in the effort to attain short-term results, but there are no short-cuts to the podium.
9. *System Alignment and Integration*: The best results can only be achieved when all organizations and individuals involved in sport are working together in an integrated, coordinated way to support athlete development and success. Coaches, other sport leaders, facilities, organizations and competitions must work together to create an environment that supports athlete development. The LTAD model must become the focus of all wrestling leaders and organizations.
10. *Continuous Improvement*: Sport is continuously evolving. Our plans and our organizations must adapt continuously to innovations, research and changes in the sport environment. New research and practical experience will constantly enrich our understanding and approach to LTAD.



Active Start

Ages 0-6 (M & F)



FUNDamentals

Ages 6-9 (M) and 6-8 (F)



Learning to Wrestle

Ages 10 – 12
(may enter later)



Formalized Training

Ages 12 – 16



Training to Compete

Ages 17 - 20



Training for Peak Performance

Age 21+



Active for Life

Enter at any age



Stages of LTAD

The LTAD model divides athlete development into a series of stages. Within each stage, appropriate development is essential. Only by following age-appropriate activities and building a foundation in each stage for the next can athletes optimally prepare to progress toward their goals.

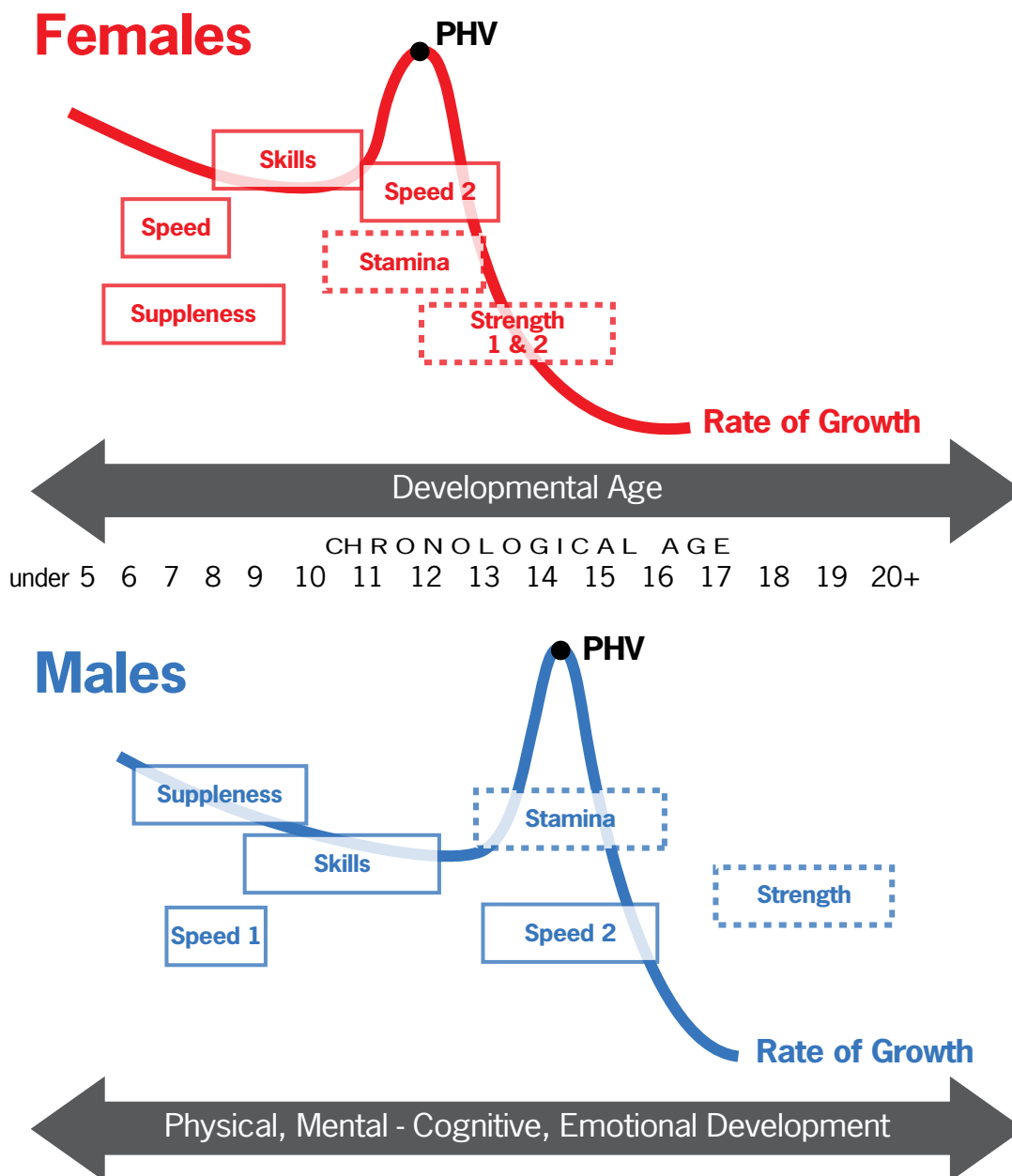
The stages of wrestling's LTAD model are:

In wrestling, many participants currently begin in high school, and come to the sport with some foundation of physical literacy and fitness developed in other activities. No matter what their age, they must progress developmentally from *Learn to Train* to *Train to Win* stages if they are to become high performance athletes. For those who choose to participate but not pursue high performance, the *Active for Life* stage is open at any age after basic skills are developed.

For athletes with a disability (AWAD) two more stages are added at the beginning: *Awareness* and *First Contact*. These emphasize the need to make access to sport known to people with a disability, and then to ensure that the sport environment and first exposure are positive and welcoming. Information about LTAD for athletes with a disability can be found in the LTAD publication *No Accidental Champions* at www.ltad.ca.

Sensitive Periods of Development

The developmental stages are sensitive for young athletes. Peak Height Velocity (PHV), the maximum rate of growth during the adolescent growth spurt, is the key marker event for sensitive periods of trainability for some of the physical “S’s” of stamina, strength, speed, skill and suppleness. It is essential that the introduction of training of these S’s is based on developmental age, not chronological age. Development occurs at different times for different young athletes. If the sensitive periods are missed, the athlete may not develop to full potential. This underlines the importance of age-appropriate programs, and optimal coaching and competition calendars in wrestling. Coaches, especially, must have the expertise to identify the athlete’s stage and the programs and systems that will allow the athlete to train and compete appropriately to his or her potential. However, even if sensitive periods are missed, *all systems are always trainable*.



The “10 S’s”

Holistic athlete development depends on a balanced approach to training, competition and recovery which lays a solid foundation for each successive stage. Reference has already been made to the original five “S’s” of physical development: Stamina (endurance), Strength, Speed, Skill and Suppleness (flexibility). The optimal development of these skills cannot occur without attention to five more “S’s”: Structure/stature (body type and growth), pSychology, Sustenance (adequate nutrition and rest), Schooling (or Stress), and Sociocultural factors.

- *Structure/stature*: The tracking of stature as a guide to developmental age allows planning to address the *sensitive periods* of physical (endurance, strength, speed and flexibility) and skill development. Diagnostics to identify strength and weaknesses is critical to factor “structure” properly into training plans.
- *pSychology*: Ultimately, the planning, implementing, and refining of mental strategies for high-level competition will have a large impact on podium performances. Consequently, the mental training program is critical at all stages of LTAD, as dealing with success and failure will determine whether the athlete continues in the sport and physical activity in general.
- *Sustenance*: Sustenance recognizes a broad range of components with the central theme of replenishing the body, including nutrition, hydration, rest, sleep, and regeneration, all of which need to be applied differently to training (life) plans depending on the stage of LTAD. Underlying sustenance is the need for optimal recovery management: the athlete moves to a 24/7 model which places a high degree of importance on the individual’s activities away from the field of play. To achieve proper sustenance and recovery, the coach and/or parent must monitor recovery through the identification of fatigue.
- *Schooling (or Stress)*: When designing training programs for young athletes, the demands of school must be considered. This is not only limited to the demands placed by school sports or physical education classes but includes integrating school academic loads, duties, timing of exams and other stresses. For mature athletes, a similar approach must be taken to work. When possible, training camps and competition tours should complement, not conflict, with the timing of major academic or work events. Overstress (the stress of life events over and above sport training) should be monitored carefully.

Interference from other school sports should be minimized, and communication between coaches responsible for delivering the training and competition programs, is essential. Parents should work together with coaches to ensure a coordinated approach.

- *Sociocultural*: Socialization through sport participation can involve broadening of perspective, including ethnicity awareness and national diversity. Within the travel schedule, recovery can include education related to the competition location, including history, geography, architecture, cuisine, literature, music, and visual arts. Proper planning can allow sport to offer much more than simply commuting between hotel room and field of play.

Sport socialization must address sport subcultures to ensure positive societal values and norms will be internalized. Coaches and parents must guard against group dynamics which create a culture of abuse or bullying. Ethics training should be integrated into training and competition plans at all stages of LTAD. Overall, sociocultural activity does not interfere with competition activities: It is a positive contribution to the development of the person and the athlete.



Why Does Wrestling Need LTAD?

Wrestling faces many of the same challenges as other sports in Canada. In addition to the well-known shortcomings in government funding support, insufficient physical education and sport in schools, etc, there are issues directly related to coaches, parents, clubs and administrators. The following is from a general overview of Canadian sport prepared by Sport Canada's LTAD Expert Group, but many points apply to wrestling as well:

Coaches

- Need for more female coaches
- Lack of understanding of coaching athletes with a disability
- Coaches largely neglect the sensitive periods of accelerated adaptation to training
- Adult training programs are imposed on developing athletes
- Preparation is geared to the short-term outcome — winning — and not to the process
- Need to promote lifelong learning and development for coaches

Organizations

- Some developmental athletes may over-compete and/or under-train
- Adult training and competition programs are imposed on developing athletes
- Chronological rather than developmental age used in training and competition planning
- Lack of training facilities
- Programming for profit vs. development
- Lack of entry level programs
- Clubs lack specific role and mandate linked to a coordinated system

Parents

- Parents are not educated about LTAD
- Parents may not understand the sport system and “which organization does what”
- Sports specialize too early in an attempt to win or to attract and retain participants; parents need to understand and resist this tendency
- FUN is forgotten

Sport Leaders

- Competition system interferes with athlete development (skews or reduces training)
- No talent identification
- No integration between physical education in schools, community programs, and elite competitive programs
- Failure to integrate athletes with a disability
- Fundamental movement skills and sport skills are not taught properly
- The most knowledgeable coaches work at the elite level and not at the developmental level where quality coaches are essential
- May have difficulty funding youth
- Programming is not a priority
- Forced to change mission/mandate in pursuit of funding



As a consequence of a deficient system, athletes may suffer:

- Injury
- Failure to reach optimal performance levels in international competitions
- Poor movement abilities
- Lack of proper fitness
- Poor skill development
- Bad habits developed from over-competing focussed on winning
- Undeveloped and unrefined skills due to under-training
- Children not having fun as they play adult-based programs
- No systematic development of the next generation of national and international athletes
- Athletes pulled in different directions by school, club, and provincial organizations because of the structure of competition programs
- Remedial programs needed by provincial and national team coaches, to counteract the shortcomings of athlete preparation
- Fluctuating performance due to lack of talent identification and a clear developmental pathway
- Athletes fail to reach their genetic potential and optimal performance level
- Athletes leave sport and want nothing to do with it later

Wrestling's new Long-Term Athlete Development model addresses these issues. By introducing LTAD principles and building an integrated athlete development system around them, we can achieve greater participation and competitive success.

The Long-Term Athlete Development Model

To reach his or her potential and goals, an athlete needs the right training and preparation, the right competitive opportunities, the right equipment, and the right nutrition, rest and regeneration...all at the right times. This Long-Term Athlete Development model defines guidelines for stage-by-stage development from entry into the sport, through to high performance and/or active participation for life.

The LTAD model is a summary of key training and performance goals for athletes. This Model assumes sufficient infrastructure and support is provided; in other words, without adequate coaching, proper competition opportunities, and other key elements, athletes cannot expect to meet all the training and performance goals in the LTAD model. To support our coaches and athletes and achieve our goals for wrestling we must build an integrated, coordinated system supporting our athletes "from playground to podium" and to lifelong involvement.

Athletes are individuals. The LTAD model consists of *guidelines*, and athletes, coaches, leaders and parents must be flexible in application to ensure that LTAD enhances wrestling as an experience and a sport for all participants. All athletes need individualized programs and evaluation by a certified coach with an understanding of Long-Term Athlete Development. Guidelines should never be used to select or reject athletes.

It is our hope and expectation that, as a result of developing and sharing this Model, *leaders and parents* will know how to make decisions that benefit the Long-Term development of athletes, *coaches* will have a common guide for the design of annual plans and programs, and *athletes* will have the guidance and support they need to excel and to participate for a lifetime.



THE LONG-TERM WRESTLING DEVELOPMENT MODEL

“Dedication. Sacrifice. Hard work. The path to success in Wrestling is not easy – but it becomes easier when the path is clear.”

The LTAD model divides athlete development into a series of seven stages. The pieces of the puzzle – Physical, Psychological, Theoretical, Technical, Tactical and Life Skills – fall into place differently in each stage as the athlete develops and matures. By following developmentally -appropriate activities and building a foundation in each stage for the next, wrestlers prepare optimally for progress toward their goals.

The central concept of the LTAD model is that of continuous learning, continuous improvement, and continuous enjoyment. It is the idea of progressive development from stage to stage, as far as the athlete wishes to go. It is the idea that every achievement is built on what came before, whether those skills were developed in wrestling or in other sports, and that to reach his or her goals there is an ideal path in which every step is supported by a sound system of coaching, sport leadership, good facilities, and optimum competition. It is the idea of “*Kaizen*”, the Japanese word for continuous improvement- the understanding that where we are today is not a destination but rather a foundation for tomorrow’s achievement.

The following pages depict the journey through sport, stage by stage, for wrestlers of all ages. Although only a very few will enter the *Training for Peak Performance* stage, every wrestler who participates in the sport in the *Learning to Wrestle* stage should be enriched by the experience, and ready to follow the path as far as they can, whether to high performance or to life-long participation in the *Enriched for Life* stage.

Remember that while every athlete must progress through every stage to the level to which they aspire, every wrestler is also an individual. All abilities are always trainable. These objectives and benchmarks are guidelines for development, not a means to select or reject individual participants.





ACTIVE START (Age 0-6 yrs)	
PHYSICAL	ACTIVE & SAFE EXPLORATION
TECHNICAL	LEARN BASIC MOVEMENT SKILLS
TACTICAL	UNINHIBITED, SPONTANEOUS PLAY
THEORETICAL	STIMULATE CURIOSITY
PSYCHOLOGICAL	ENCOURAGE BEING ACTIVE
LIFE SKILLS	PARENT AND FAMILY-CENTERED

ENRICHED FOR LIFE (any age)	
PHYSICAL	PHYSICALLY ACTIVE FOR LIFE
TECHNICAL	PASS THE TORCH TO FUTURE WRESTLERS
TACTICAL	STRATEGIC, PLANNED APPROACH IN LIFE
THEORETICAL	LIFE LONG LEARNING
PSYCHOLOGICAL	MENTALLY STRONGER FOR LIFE
LIFE SKILLS	ENRICHED LIVING



FUNDAMENTALS (Age 6-9 yrs)	
PHYSICAL	GENERAL/OVERALL DEVELOPMENT
TECHNICAL	BUILD BASIC SPORT SKILLS
TACTICAL	OUTCOMES OF COMPETITION
THEORETICAL	ENCOURAGE LEARNING
PSYCHOLOGICAL	HIGHLIGHT THE POSITIVE
LIFE SKILLS	JOIN IN ORGANIZED GAMES

TRAINING FOR PEAK PERFORMANCE (Age 21+)	
PHYSICAL	OPTIMIZE & FINE TUNE ALL ABILITIES
TECHNICAL	PERFECT THE REPERTOIRE
TACTICAL	REFINE PERSONAL & STUDY OPPONENTS TACTICS
THEORETICAL	PERSONAL INTERPRETATION AND APPLICATION
PSYCHOLOGICAL	WINNING WHEN IT COUNTS
LIFE SKILLS	SELF-DIRECTED AND IN CONTROL

LEARN TO WRESTLE (Age 10-12 or later)	
PHYSICAL	BUILD CORE WRESTLING ABILITIES
TECHNICAL	BASICS OF TAKE-DOWNS AND PARTERRE
TACTICAL	THINKING: HOW TO GET AN ADVANTAGE
THEORETICAL	BASIC RULES OF WRESTLING
PSYCHOLOGICAL	PASSION FOR WRESTLING AS INDIVIDUAL COMBATIVE SPORT
LIFE SKILLS	STRUCTURED COOPERATIVE ACTIVITY

TRAINING TO COMPETE (Age 17-20 or later)	
PHYSICAL	DEVELOPMENT OF MAXIMAL CAPACITY
TECHNICAL	MASTER CORE ELEMENTS, DEVELOP VARIATIONS
TACTICAL	FORMULATE PERSONAL STRATEGY & TACTICS
THEORETICAL	UNDERSTAND BASIS OF ATHLETIC PERFORMANCE
PSYCHOLOGICAL	PLAN SEEDS OF PEAK PERFORMANCE
LIFE SKILLS	DEVELOPING INDEPENDENCE

FORMALIZED TRAINING (Age 12-16 or later)	
PHYSICAL	INTRODUCTION TO CROSS-TRAINING
TECHNICAL	ACQUIRE CORE TECHNICAL SKILLS THROUGH REPETITION
TACTICAL	LEARN PRINCIPLES OF TACTICS
THEORETICAL	LANGUAGE, PROTOCOL, STRUCTURE AND HISTORY OF WRESTLING
PSYCHOLOGICAL	FOSTER PERSONAL QUALITIES FOR WRESTLING
LIFE SKILLS	ETHICAL AND MORAL DEVELOPMENT

WRESTLING STAGE-BY-STAGE

ACTIVE START (age 0 – 6 years)

Objective: Make physical activity part of daily life

THE PARTICIPANT

- From age 0 to 6 years old, a child is a “learning machine” full of curiosity and always on the move. Brain connections are being made and the body is growing rapidly.
- The child has a short attention span and needs lots of variety and frequent breaks.
- Social play with other children develops gradually, but the child loves to imitate and play with parents.
- Limited ability to grasp concepts like sport rules but lots of imagination to create their own games.

THE COACH

- Parents, family, and teachers are the “coaches” at this stage.
- Allow lots of room for exploration and risk-taking in a safe environment.
- Promote physical activity and healthy eating as a family activity. Role modeling is very important.
- Provide short-duration, rapidly changing activities with lots of breaks. Let the child’s attention span and interest dictate the activity.

DEVELOPMENT

- The child is building the foundation for future success in skill development and creating neural connections across multiple pathways in the brain particularly when rhythmic activities are used.
- Physical activity enhances development of brain function, coordination, social skills, gross motor skills, emotional development, leadership and imagination. It helps children to build confidence and develop positive self-esteem.
- Activity also helps builds strong bones and muscles, improves flexibility, develops good posture, improves fitness, promotes a health body weight, reduces stress and improves sleep.

THE PROGRAM

- Daily activity: minimum 30 minutes/day for toddlers and 60 minutes/day for preschoolers.
- FUN activities on land, in water and air, and sliding on snow and ice.
- Encourage running, with stops, starts and changes in direction.
- Catching and throwing games using a wide range of soft objects, and balls of different sizes. Start with two hands then progress to using left and right hands to catch and throw.
- Balance, jump, slither like a snake, and roll like a rolling pin. Use hands, feet and other body parts to balance, push and jump. Ride a tricycle or bike.
- Allow non-aggressive tumbling and “play-wrestling” as long as you can see smiles and hear laughter.

FUNDAMENTALS (age 6 – 9 years)

Objective: Experience the joy and excitement of physical activity and games

THE PARTICIPANT

- From age 6 to 9 years old, a child learns to participate in group activities. He/she expects to be directed by parents, teachers or coaches and loves to follow, but due to short attention span and judgmental nature, can quickly become frustrated or lose interest.
- He/she likes to show off skills and be the center of attention. Participation in sport can be a source of pride as long as success is praised and reinforced.

DEVELOPMENT

- The first period of accelerated adaptation to speed occurs at age 6-8 for girls and age 7-9 for boys.
- Suppleness (flexibility) is also very trainable.
- Anaerobic capacity is low, as is ability to regulate temperature in extreme hot or cold environments.
- Attention span is short: children are enthusiastic and want to be in action.
- Skill learning is through verbal, visual, and physical means. Demonstrations and guided trial works far better than explanation alone.
- Strong sense of fairness emerges. Children understand basic sport rules, ethics and concepts.

THE COACH

- Parents, family, and teachers are the early “coaches”. Later, in structured sport programs, coaches should be Community Sport- Initiation.
- Approach: structured play in fun, safe environments and a minimal emphasis on competition.
- Focus on building-blocks of later performance: ABC’S (Agility, Balance, Coordination, Speed) through a wide range of fun activities.

THE PROGRAM

- Daily activity: unstructured play daily plus a minimum 30 minutes/day, 5x/week of structured activity including school PE.
- Multiple, fun sport activities on land, in water and air, and sliding on snow and ice.
- Use of modified sports and equipment to ensure the child can control the game.
- Consolidate fundamental movement skills and begin to apply in sport settings. Emphasize catching, throwing, hitting, running and other games.
- Work on speed (linear, lateral, multi-directional, arm/hand, leg/foot, etc) with activities under 5 seconds long.
- Develop strength through games using own body weight, medicine ball, Swiss ball, etc.
- Wrestling-related activities: let the athlete experiment with concepts of balance, center of gravity, leverage and strength in games. Allow non-aggressive tumbling and “play-wrestling”. Judo lessons to experience a basic combat sport utilizing similar principles.



LEARN TO WRESTLE (age 10 - 12 but may enter later depending on onset of puberty)

Objective: Orientation to the sport of wrestling

Division: Kids (or later)

THE ATHLETE

- Entering organized wrestling for the first time.
- May be interested due to participation in school, participation of parent or family member, or other reasons.
- May be apprehensive, curious to “see how he/she does”...needs encouragement and reinforcement through success.
- May be entering at Kids Division if age 10-12 but if he/she is entering the sport later, may be 12-16 or older. All novices entering the sport enter at Learn to Wrestle.

THE COACH

- Community Sport- Initiation coach if new wrestler is age 10-12 and entering via club stream.
- May be Competition-Introduction coach if athlete is age 12 or older, or entering through high school stream.
- Approach: Use games-based training- allow the athlete to experiment with concepts of balance, center of gravity, leverage and strength in games and simple simulations.
- Use games to develop multiple competencies (e.g. skills, speed, stamina) but avoid complex tactics, highly repetitive drills, and high intensity physical training.

DEVELOPMENT (for 10-12 year olds)

- Optimal period for Skill development is age 8-11 in girls, 9-12 in boys. Fine motor and coordinated movements can develop quickly. The emphasis is on transferring fundamental movement skills to fundamental sport skills, and building sport skills.
- Prior windows were Speed and Suppleness: continue to build on motor speed and flexibility through a variety of activities.
- Strength is developed through own body weight activities, medicine balls, etc.
- Stamina is developed through games and relays.
- Abstract thinking and attention span are still developing. Lengthy explanations and complex concepts are difficult to grasp.
- At this age children are becoming more self-aware and self-conscious. Peer approval is important. They may like to be part of a team and “show off” their success and skills to peers.

THE PROGRAM

- *Overall:* Athlete should be involved in multiple other sport/physical activities for multi-lateral development
- *Wrestling-specific program:* 2 - 6+ weeks, 1 - 3x/week. Seasonal program coordinated with those of other sports.
- *Physical:* Develop ABC'S: Agility, Balance, Coordination and Speed
- *Technical:* Learn basic concepts of take-downs and par-terre actions
- *Tactical:* Thinking of how to get an advantage
- *Psychological:* Develop passion for wrestling as individual/combatative sport, through fun, success mastering basics
- *Theoretical:* Basic rules of wrestling
- *Life skills:* Cooperation, sportpersonship
- *Competition:* “Festival” environment, modified rules/ match conditions - 1+ events per year.



FORMALIZED TRAINING (age 12 - 16 or later depending on ability)

Objective: Acquire core skills through repetition

Division: Bantam/Cadet

THE ATHLETE

- Has made a commitment to participate in organized wrestling.
- Is prepared to train hard and compete.
- Is likely experiencing many life challenges in adolescence, including school, family and work, which may detract from commitment to sport. Growth spurt may also lead to temporary loss of performance.
- Wants to feel successful and accepted.
- Has learned basics of the sport in the Learn to Wrestle stage.

THE COACH

- Competition-Introduction coach working in a club or high school environment.
- Approach: Introduce a more structured, higher-volume program. Use games and decision-based training to develop multiple competencies (e.g. skills, speed, stamina). Expect the athlete to learn through experimenting and thinking, not just repetition. Emphasize building a strong foundation of core wrestling skills.
- Avoid “cutting” athletes especially late-maturers. Build every athlete for the next stage or the next sport.
- Reinforce athlete’s feeling of competence and success through progressive exposure to competition. Avoid temptation to push too hard, too soon, especially with early-maturing athletes.

DEVELOPMENT (for 12-16 year olds)

- Rapid physical, mental and emotional changes in this phase.
- Optimal period for Stamina begins at growth spurt: usually age 11-15 in girls, 12-16 in boys. Make aerobic training a priority after the growth spurt while maintaining or further developing levels of skill, speed, strength, and flexibility.
- Emphasize flexibility training given the rapid growth of bones, tendons, ligaments, and muscles.
- There are 2 periods 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 period and it begins 12 to 18 months after PHV.
- Abstract thinking and future-planning skills develop later in the stage.
- Adolescents are highly influenced by their peers and want to be independent and make their own decisions.

THE PROGRAM

- *Overall:* Athlete should continue involvement in other sport/physical activities focusing on 2 main sports.
- *Wrestling-specific program:* 8 - 12+ weeks, 2 - 4x/week. Periodized seasonal program coordinated with other sports.
- *Physical:* Consolidate ABC’S: Agility, Balance, Coordination and Speed. Introduce off-mat training including strength training.
- *Technical:* Consolidate core skills through repetition. Introduce new skills regularly.
- *Tactical:* Introduce tactical principles: action, reaction, deception.
- *Psychological:* Foster combative mentality and perseverance.
- *Theoretical:* Language, protocol, structure and history of wrestling
- *Life skills:* Respect for sport, opponent, self.
- *Competition:* Regional and Provincial competition; introduce National later in stage. Build success through selected competitive experience. 10-20 matches/yr.



TRAINING TO COMPETE (age 17 - 20 or later depending on ability)

Objective: Specialization of training

Division: Juvenile/Junior

THE ATHLETE

- Is serious about organized wrestling and pursuing excellence.
- Is prepared to train hard and focus on competitive success.
- Is likely experiencing life challenges in balancing school, family, personal relationships and work, which may detract from commitment to sport.
- Self-image becomes defined, includes sport as a major element in identity.
- Looking ahead to next steps in sport success e.g. college, National Team but may be frustrated by injury or other priorities.
- Needs to build a support network including family, coach, sport science and health care to sustain sport career.

DEVELOPMENT (for 17-20 year olds)

- Major opportunity for strength and power development.
- Maintain or further develop skill, speed, stamina and flexibility.
- Capacity for significant increase in volume and intensity of training.
- Abstract thinking and goal-setting skills well-developed; can think ahead tactically, and in terms of personal development.
- Strong sense of independence and wants to make own decisions, yet continues to desire external support and identity with peer group.

THE COACH

- Competition-Development coach working in a club or college/university environment.
- Approach: Introduce a year-round, high-volume and intensity program. Decision-based training is used to transfer skills and fitness to competitive situations. Use competition simulations and training competitions to build competition skills. Insist the athlete learn through experimentation and analysis.
- Reinforce feeling of competence and success through progressive exposure to competition. Avoid over-reaching, over-training and over-competing to protect against injury.

THE PROGRAM

- *Overall:* Specialize in maximum two sports and move to year-round, high volume and intensity training. Focus on volume.
- *Wrestling-specific program:* 30+ weeks, 5 - 8x/week. Periodized annual program with single or double peaks. Introduce tapering/peaking strategies.
- *Physical:* Optimize strength, speed and power. Build maximal capacity.
- *Technical:* Master core skills and develop variations in competitive situations.
- *Tactical:* Develop personal strategy/tactics based on individual strengths.
- *Psychological:* Plant seeds of peak performance: goal-setting, desire, sacrifice.
- *Theoretical:* Understand basis of athletic performance.
- *Life skills:* Develop independence.
- *Competition:* Provincial, National, Canada Games. Intro to international and Junior Worlds. 30+ matches/year.



TRAINING FOR PEAK PERFORMANCE (age 21+)

Objective: Winning when it counts

Division: Senior

THE ATHLETE

- Totally committed to pursuing excellence in wrestling.
- Has been focused on competitive success and training hard for 7+ years. Is mastering all aspects of wrestling and life as a high performance athlete.
- Has an active support network including family, coach, sport science and health care to help sustain sport career. Is learning to manage stress, injury, and maintaining peak performance while balancing life demands.
- Is increasingly seen as a role model and is in demand to appear or coach at various events.

DEVELOPMENT

- Maintain or further develop skill, strength, speed, power, stamina and flexibility.
- Care must be taken to optimize volume and intensity of training to maintain peak performance while avoiding injury. Consider individual variation in ability to cope with training volume, recovery needed, etc.
- Abstract thinking and goal-setting skills fully-developed. Able to analyze situations quickly and adapt or innovate.
- Is independent and self-directed, yet needs strong support to enable full focus on demands of sport.

THE COACH

- Competition-High Performance coach working in a club, college/university or National Team environment.
- Approach: Provides support, technical analysis and outside perspective to an established high performance athlete. Seeks competition opportunities and engages additional specialized expertise to fine-tune athletic performance.
- Build independence through athlete's participation in planning decisions and own control of day-to-day training.
- Monitor carefully to avoid over-reaching, over-training and over-competing and protect against injury.

THE PROGRAM

- *Overall:* Analyze, monitor and perfect performance. Focus on quality.
- *Wrestling-specific program:* Year-round, 9 - 12x/week. Periodized annual program with multiple peaks.
- *Physical:* Optimize all physical qualities with emphasis on recovery.
- *Technical:* Perfecting strengths in simulated or modeled competitions. Innovating skills.
- *Tactical:* Study opponents while refining own actions and reactions. Innovating tactics.
- *Psychological:* Prepare for the unexpected and overcome adversity.
- *Theoretical:* Understand and refine personal problem-solving, choices, decisions.
- *Life skills:* Becoming self-directed and in control at all times
- *Competition:* National, International, Worlds and major Games. 15+ selected quality matches per year.
- Participation in H.P. Camps, National Team program, performance testing.



ENRICHED FOR LIFE (enter at any age after adolescence)

Objective: Use the positive lessons of sport

Division: Masters

THE ATHLETE

- This athlete may be younger, moving out of Learning to Wrestle or Formalized Training stages and seeking ongoing participation in the sport, or ending a high performance career in wrestling.
- Wants to maintain physical fitness and enjoy the fun of sport, in either a competitive or non-competitive setting.
- Is leading a busy life including school or work, and family. Sport is not top-priority.
- Has a lot to offer wrestling, whether as a participant, coach, official, or leader.

DEVELOPMENT

- Age-dependent. May be continuing to develop physically if aged 16-21.
- After age 25+/- some physical abilities decline gradually but can be maintained with training. This is often compensated for by superior tactical sense and mental strength.
- Development as a coach, a mentor, an organizer is just beginning – supporting life long learning should be a goal of every sport organization.

THE COACH

- If the participant wants to continue competing, the coach may be a Competition-Introduction coach working in a club environment.
- Approach: A structured, but lower-volume program. Give the participant opportunities to learn and grow through designing and leading activities and experimenting with other disciplines. Emphasize maintaining fitness through regular activity.
- Encourage the participant to try coaching, officiating or other leadership roles in the sport. Offer support and encouragement.

THE PROGRAM

- *Overall:* Athlete should continue involvement in other sport/physical activities focusing on several enjoyed sports.
- *Wrestling-specific program:* Seasonal program as desired by athlete, coordinated with other sport activities.
- *Physical:* Maintain key physical abilities- suppleness, speed, strength, stamina.
- *Technical:* Maintain and refine core skills. Provide opportunities to learn new skills.
- *Tactical:* Maintain personal strategy/tactics based on individual strengths.
- *Psychological:* Mentally stronger for life- employ the lessons of sport and life.
- *Theoretical:* Life-long learning.
- *Life skills:* Reflecting on the experience of sport and finding ways to give back.
- *Competition:* As desired- Regional, Provincial or National competition.



DEVELOPING WRESTLING SKILLS

Wrestling success demands split-second reactions and near-automatic decision-making: attack, defend, react and counter. At the highest levels, the wrestler must be able to draw upon and execute a complete repertoire of leg, upper body, ground and combination attacks while being able to defend/counter each of these from his or her opponent. This depends on two things: the ability to execute skills to perfection, learned through countless hours of repetition; and the ability to read the situation and instantaneously make the right decisions. Research shows that Decision Training (DT), combined with a Games approach to practice, has the best success in teaching both skills and decision-making to athletes in all stages of LTAD.

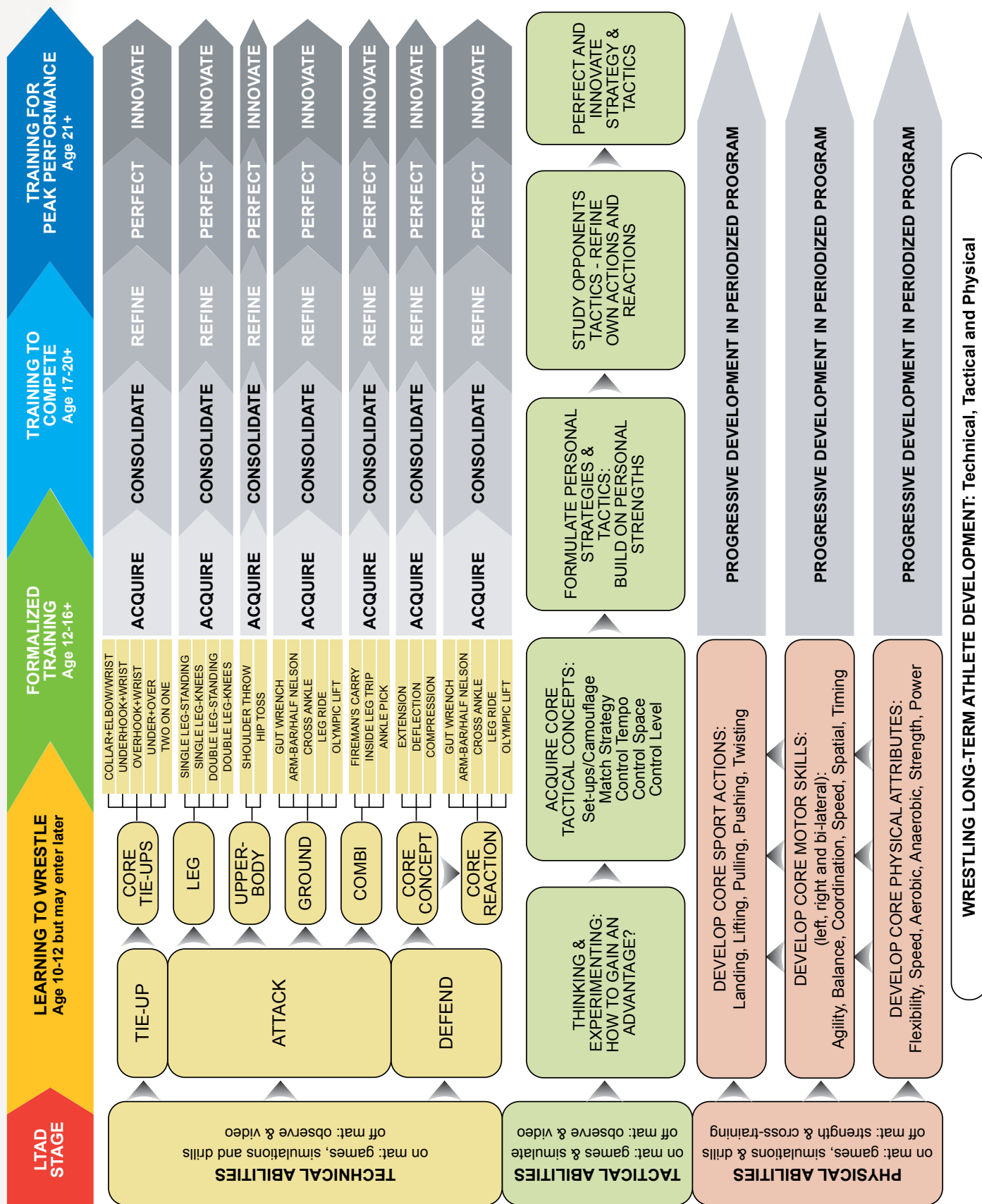
Decision Training (Vickers, 2003) is a coaching method based on allowing the athlete to take an experimental approach. Athletes employ groups of skills in competition-simulation situations. The coach provides feedback only when performance falls outside pre-determined limits, and questions the athlete afterward, effectively asking the athlete to discover determine what works for him/herself. Components such as randomized practice, “hard-first” tactical instruction, and use of questioning and video to enhance feedback are part of DT. While rewarding for the athlete, DT demands that coaches master new approaches that are more challenging than simple drills and repetitions.



Games training, sometimes called Games Sense or Teaching Games for Understanding, is a concept that compliments DT. A Games approach uses a series of game activities pre-determined by the coach to teach technical and tactical skills. The games are essentially the simulations and situations used in DT. Athletes consistently find Games-based training more fun than traditional drills, while achieving superior results for skill acquisition and retention and improving decision-making in matches.

The combined Decision Training-Games approach compliments LTAD by providing athlete-centered, stage-appropriate learning of skills and tactics. The following table shows how various technical skills and tactics can be linked to the LTAD stage of the athlete. Basic and core concepts are learned in the Learn to Wrestle stage through games and simulations, and the concepts become the basis for core skills and tactics developed later in Learning to Wrestle and throughout the Formalized Training stage. These, in turn, are consolidated, refined and perfected through the Training to Compete and Training for Peak Performance stages.





AN INTEGRATED WRESTLING DEVELOPMENT SYSTEM

Wrestling is practiced in school and club programs in every province and territory across Canada. Many thousands have grown through their experience in the wrestling, and a notable few have gone on to become Olympic champions and shine at the top levels of the sport. Behind every athlete, however, is a team of coaches, officials, administrators, parents, volunteers and sponsors who remain in the background. These are the people who build our sport, providing the system, the support, and the opportunities for our athletes.

We believe in Canadian Wrestling which is athlete-centered, coach-driven, and sport system supported. To reach our goals for the future, we need to work together. The best results can only be achieved when all organizations and individuals involved in sport are working together in an integrated, coordinated way to support wrestling development and success. Here is how each group can contribute to the sport:

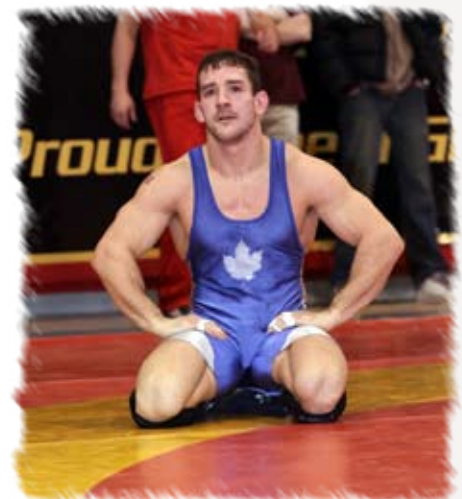
Parents:

- Participate in sport with their children
- Encourage participation of their children in two to three other complementary sports
- Provide support and guidance and make involvement in sport fun
- Be educated about wrestling and how one can progress through the sport
- Have basic education on nutrition/recovery
- Make a long-term commitment to skill/performance progression
- Understand the ABC's of athleticism: agility, balance, coordination and speed
- Understand the concept that increased activity reverses the current trends in childhood and adult obesity and cardiovascular disease
- Understand the concept that inactive adults tend to produce inactive children
- Understand that children will lose motivation if they feel that cannot match their parents' expectations
- Be flexible with their expectations; as children pass through different phases of development, parents (and coaches) should modify their expectations as necessary
- Strive to get an accurate assessment of their children's ability
- This is about the development of the child; make sure parental expectations of skills, abilities and aspirations are in line with the child's
- Explore the child's expectations, goals and aspirations



Wrestlers:

- Enjoy the sport
- Become adept at all the key physical proficiencies: balance, flexibility, posture, core stability, strength and power, cardio endurance and performance skills
- Understand how pressure and stress affects performance
- Understand their mental performance strengths and weaknesses
- Know what mental management skills they need to integrate into their personal performance plan to be able to control their emotions, focus on the task, and cope with adversity and pressure
- Become self-reliant and demonstrate taking independent initiative in learning and developing their skills and strategies



Coaches and Instructors:

- Have a passion for the sport and for excellence
- Be educated and have a thorough understanding of LTAD
- Deliver stage-appropriate training and competition programs, respecting male-female differences and sensitive periods of adaptation
- Support athletes with a disability
- Understand how and where they fit into the “system”
- Know what is required in order to deliver the athlete to the next level
- Continue to upgrade skills and knowledge
- Be prepared to work together, sharing knowledge to strengthen the sport
- Have a general understanding of what is available for wrestlers of all levels
- Accept that effective mental skills are critical to consistent, quality performances at all levels



Clubs:

- Understand their role and what is required to deliver the wrestler to the next level
- Provide proper coaching, training and competition opportunities
- Provide proper access to training and competition facilities
- Provide a support structure i.e. finances, mentoring, resources, instruction, coaching etc.
- Encourage and support junior, entry-level programs and programs for athletes with a disability

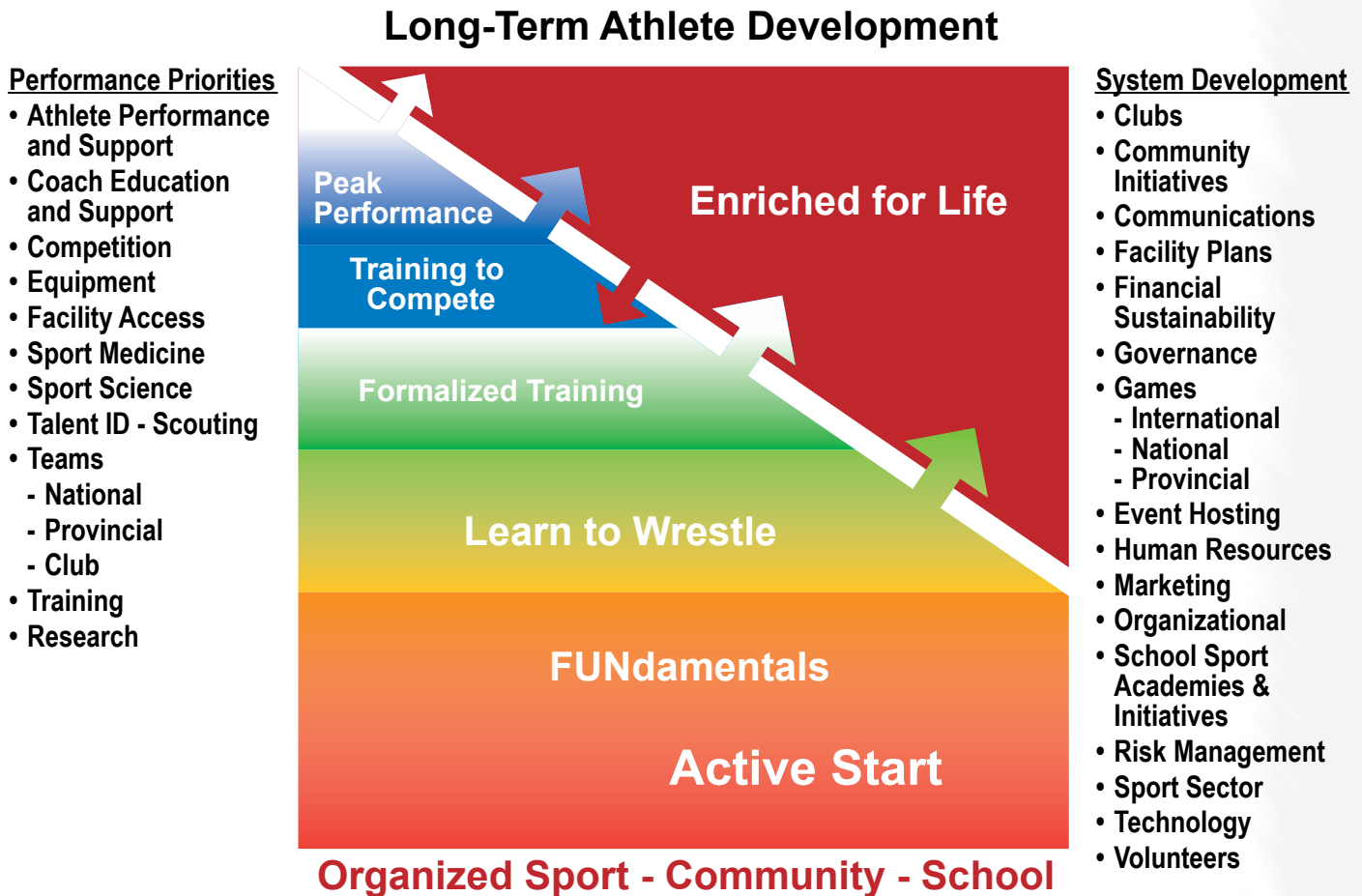
Provincial and National Associations:

- Be a source of information, expertise and support - the backbone to provide the necessary information, contacts, personnel and communications in athlete development
- Understand what is required to deliver the wrestler to the next level
- Facilitate discussion among the various stakeholders, clubs, wrestlers, and administrators
- Find means to reduce costs to stakeholders (wrestlers, coaches, facilities etc)
- Make sure significant programming is in place to support their role
- Strive to be the best association at their level
- Place increasing emphasis on junior development programs to ensure the long-term growth of the sport



Enriched for Life

LTAD is not simply about excellence. Competitive wrestlers typically participate in other sports before coming to wrestling, and one day will retire from competition. While one objective of the LTAD model is to define an optimum path to excellence and the system improvements that must be in place to support excellence, it is equally important to define a path to activity for life. Wrestlers must be encouraged to stay in sport- any sport- as well as to give back by becoming a coach, official or other sport leader.



THE FUTURE

“Our wish is for you to feel proud of your uniqueness and to be patient with your own development. . . you are not alone on your journey”

- Tonya Verbeek and Daniel Igali, Canadian Olympic Medalists

Wrestling has a long and proud history in Canada. We have had many successes and champions, with Olympic medalists from Aubert Côté in 1908 to Carol Huynh in 2008. More important, perhaps, are the sport lessons learned and the friendships made by tens of thousands of Canadians who have wrestled in clubs and schools across our nation. As Wrestling Canada Lutte looks to the future, we see sustainable growth, increased participation, and excellence in competition.

Wrestling’s LTAD model is an essential tool in achieving that future vision. By building an integrated development system that emphasizes the progressive, seamless development of athletes- that is, by being athlete-centered, coach-driven and system-supported - we can reach our goals. There is no doubt this will require hard work, dedication and a willingness to change and cooperate. Just as each wrestler and coach must remain patient, understanding that there are no shortcuts to success, our leaders must take the long-term view. But with a clear pathway for wrestler development in place, we will succeed.



When the system provides adequate support, *and* the athlete attains the key competencies in each stage including previous, foundation stages, then the athlete is able, within his or her own limitations, to reach the highest level of performance. Everyone – wrestler, parent, coach, club, association, etc – has to get it right for the athlete to reach his or her full potential. By following the LTAD model and participating as both athletes, coaches and builders, we can create a system that allows every Canadian wrestler to reach his or her potential.

RESOURCES

Biathlon Canada LTAD Model Vol.1, 2006. Ball, A.,(ed.) Biathlon Canada, Ottawa, ON. ISBN 0-9781096-0-0

Canadian Sport for Life, 2005. Balyi, I., Cardinal, C., Higgs, C., Norris, S., and Way, R. Canadian Sport Centres, Vancouver, BC. ISBN 0-9738274-0-8

Decision Training: An Innovative Approach to Coaching. Vickers, J. in Canadian Journal for Women in Coaching, February 2003, Vol 3 No 3.

No Accidental Champions, 2006. Balyi, I., Cardinal, C., Higgs, C., Norris, S., and Way, R. Canadian Sport Centres, Vancouver, BC. ISBN 0-9738274-3-2



CLOSER LOOK:

Periods of Enhanced Trainability and Glossary

This chart shows how physical and mental qualities have their own period of enhanced trainability, on a scale from 1 - "limited trainability" to 4 - "maximum trainability". Even if these periods are "missed", after adolescence all qualities are always trainable. For definitions of the physical and mental qualities, see the Glossary. These qualities are applicable to all sports and are vital to physical literacy and overall development.

<i>LTAD Stage</i>	<i>Active Start</i>	<i>FUNda-mentals</i>	<i>Learn to Wrestle</i>	<i>Formal Training</i>	<i>Formal Training</i>	<i>Train to Compete</i>	<i>Train to Compete</i>	<i>Peak Performance</i>
Approximate Developmental Stage	Early Child	Mid Child	Late Child	Early Puberty	Mid Puberty	Late Puberty	Early Adult	Adult
Goal setting					2	3	4	3
Strength 2					2	3	4	3
Speed 2					2	4	3	2
Abstract thinking					3	4	3	2
Aerobic endurance		2	3	4	4	3	2	1
Mental models		1	3	4	3	2	2	1
Speed 1	1	2	3	4	2	1	1	1
Strength 1	1	2	3	4	3	2	1	1
Fine motor skills	1	2	3	4	2	1	1	1
Aiming & hitting	1	2	3	4	3	2	1	1
Visual acuity	2	3	4	1	1	1	1	1
Memory	2	3	4	3	2	1	1	1
Coordination	2	3	4	3	2	1	1	1
Balance	2	3	4	3	2	1	1	1
Agility	2	3	4	3	2	1	1	1
Gross motor skills	4	4	3	3	2	2	1	1

Development of Skills and Abilities Across LTAD Stages – from Biathlon Canada LTADM, 2006

Glossary

ABC'S: Agility, Balance, Coordination, Speed (movement literacies).

Abstract Thinking – Thinking about processes, objects and events that may or may not have real world representation.

Adaptation refers to a response to a stimulus or a series of stimuli that induces functional and/or morphological changes in the organism. Naturally, the level or degree of adaptation is dependent on the genetic endowment of an individual. However, the general trends or patterns of adaptation are identified by physiological research, and guidelines are clearly delineated of the various adaptation processes, such as adaptation to muscular endurance or maximum strength.

Adolescence is a difficult period to define in terms of the time of its onset and termination. During this period, most bodily systems become adult both structurally and functionally. Structurally, adolescence begins with an acceleration in the rate of growth in stature, which marks the onset of the adolescent growth spurt. The rate of stature growth reaches a peak, begins a slower or decelerative phase, and finally terminates with the attainment of adult stature. Functionally, adolescence is usually viewed in terms of sexual maturation, which begins with changes in the neuroendocrine system prior to overt physical changes and terminates with the attainment of mature reproductive function

Aerobic Endurance- Ability to exercise for long durations using aerobic energy systems.

Aiming/Hitting- Hitting a target with an object.

Agility- The ability to move quickly in three dimensions while remaining in control of the movement.

Balance- Ability to remain upright while moving. Includes static balance and balancing while moving or gliding.

Childhood ordinarily spans the end of infancy — the first birthday — to the start of adolescence and is characterized by relatively steady progress in growth and maturation and rapid progress in neuro- muscular or motor development. It is often divided into early childhood, which includes pre-school children aged 1 to 5 years, and late childhood, which includes elementary school-age children, aged 6 through to the onset of adolescence.

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

metamorphosis during the first two decades of life.

Coordination- Moving several parts of the body serially or simultaneously to achieve movement.

Core Strength and Stability- Strength of the core muscles of the trunk, including chest, back and abdomen, which provide an “anchor” for the effective use of arm and leg muscles.

Decision Training- a coaching method based on allowing the athlete to take an experimental approach. Athletes employ groups of skills in competition-simulation situations. The coach provides feedback only when performance falls outside pre-determined limits, and questions the athlete afterward, effectively asking the athlete to discover determine what works for him/herself. Decision Training uses seven tools: variable practice, random practice, bandwidth feedback, questioning, video feedback, hard-first tactical instruction, and modeling. Research shows athletes retain learned skills longer and improve their ability to make decisions in competition situations when Decision Training is used.

Fine Motor Skills- Movements controlled by small muscles, e.g. hand or finger movements.

Goal Setting- The ability to set targets for future behaviours or outcomes.

Gross Motor Skills- Large movements of the limbs and body using multiple joints and muscle groups.

Memory- Ability to retain and recall instructions, information, and experiences.

Mental Models- Ability to understand and manipulate mental models of real-world processes.

Periodization- A training program broken down into phases (periods) to promote progressive development.

PHV or Peak Height Velocity- the maximum rate of growth in stature during growth spurt. The age of maximum velocity of growth is called the age at PHV.

Physical Literacy- The competence of an athlete in a wide range of physical activities; a foundation for all sport development.

Sensitive (or Enhanced) periods of development refers to a point in the development of a specific behaviour when experience or training has an optimal effect on development. The same experience, introduced at an earlier or later time, has less effect on, or retards, later skill acquisition.

Speed 1- Speed increases due to improvements in neuromuscular coordination.

Speed 2- Speed increases due to improvements in anaerobic alactic and lactic systems.

Strength 1- Strength increases due primarily to increases in neuromuscular coordination, not muscle fiber growth.

Strength 2- Strength increases due primarily to increases in lean muscle mass- hypertrophy.

Strength-endurance- Muscular strength and endurance, allowing repeated static or dynamic muscular contractions with reduced levels of fatigue.

Visual Acuity- Ability to discriminate edges and see objects at various distances.



Using the Wrestling Canada Lutte LTAD DVD

Wrestling Canada Lutte has produced a DVD that illustrates many key LTAD concepts and is an ideal resource to accompany this LTAD guide. This index matches topics in this guide with sections of the DVD where you can find in-depth information and insights from top coaches and athletes. (Note: the DVD has much worthwhile material not directly linked to topics in this guide. It's all worth watching!)

Wrestling Canada Lutte LTAD Guide	
TOPIC	Pg
What is LTAD?	5
The 10 Key Factors	5
Stages of LTAD	7
Sensitive Periods	8
Why Does Wrestling Need LTAD?	10
Active Start	14
FUNDamentals	15
Learn to Wrestle	16
Learn to Wrestle	16
Formalized Training	17
Formalized Training	17
Training to Compete	18
Training for Peak Performance	19
Training for Peak Performance	19
Enriched for Life	20
Enriched for Life	20
Developing Wrestling Skills	21
Technical, Tactical, Physical	22
Technical, Tactical, Physical	22
Integrated Wrestling Development	23
Integrated Wrestling Development	23
Integrated Wrestling Development	23
Integrated Wrestling Development	23

Wrestling Canada Lutte LTAD DVD		
TITLE	SECTION	Ch
Made in Canada	LTAD-CS4L	1
Made in Canada	The 10 Key Factors	1-11
Made in Canada	The 7 Stages	1-8
Made in Canada	The 10 Key Factors	5-7
Made in Canada	LTAD-CS4L	2-3
System Supported	Welford	9
Made in Canada	The 10 Key Factors	3
Coach Driven	Allen	2
Coach Driven	Jones	7
Athlete Centered	Igali	5
Coach Driven	Choquette	5
System Supported	Payette	6
Athlete Centered	Taub	3
Athlete Centered	Verbeek	1-4
System Supported	Llewellyn	5
System Supported	Reinitz	10
Coach Driven	Cipriano	7
Coach Driven	Calder	1
Coach Driven	Tzogas	3
Athlete Centered	Haley	7
System Supported	Moncur	4
System Supported	Soanes	7
System Supported	Carroll	8

