



# South African Hockey

## SOUTH AFRICAN HOCKEY ASSOCIATION LONG TERM PARTICIPANTS DEVELOPMENT (LTPD)



## PARENTAL GUIDE



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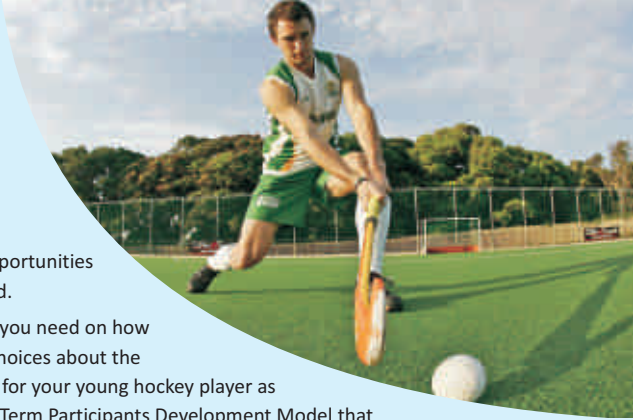


## INTRODUCTION

Parents want to provide their children with the opportunities to excel to the best of their abilities and to succeed.

This guide is designed to give you the information you need on how athletes develop so that you can make informed choices about the activities that are most appropriate and beneficial for your young hockey player as they continue in the sport. It is based on the Long Term Participants Development Model that has been endorsed by SA Hockey, SASCOC and NDSR.

Kids are kids- not little adults. There is little to be gained and much to be lost, by attempting to force young players into the full game before they are physically, technically and mentally (emotionally) ready for the activity. One of the fundamental goals of teaching (coaching) is to ensure that every player has a high level of success. Therefore we need to assess the developmental readiness of the player in each age group.



## WHY IS CHANGE NEEDED?

“With the advance of electronic entertainment, more and more kids are not getting enough exercise, not learning fundamental movement skills and suffering from the effects of being overweight, or worse – obese. This means that kids who join sport for the first time often struggle from the outset. We must change our lifestyle habits starting with increased physical activity at the younger ages.”

Sport makes a major contribution to the health and development of individuals and the communities in which we all live. It provides an opportunity for kids and adults to be active when inactivity rates threaten the health and quality of life of South Africans. Sport also provides participants with valuable lessons on teamwork, fair play and the value of working towards goals. The existing sport system is generally falling short of its potential due to some of the weaknesses and challenges.

## PARENT INFORMATION

### **Over Competing and Under Training**

Many athletes spend too much time resting, traveling, competing and recovering from competition and not enough time preparing for it. In many team games players share a ball thus limiting skill development. In practice players can have one each.

### **Too Much Emphasis on Winning at Young Ages**

Too many coaches and parents focus on the result, rather than performance. This attitude leads to long-term failure as coaches forgo the development of skills to focus on specific game tactics.

### **Inappropriate Training Programs**

Too often, adult training programs are imposed on children and boys programs used for girls. Children are not small adults and girls develop differently than boys. Younger athletes (6 to 8/9 years) need to spend more time developing basic movement skills and then (8/9 to 11/12 years) sport specific skills. As athletes get older, the focus should gradually shift towards fitness and tactics.

### **Specialization**

As athletes get older, they will need to specialize in 1 or 2 sports if they are to be successful. Younger athletes should participate in several sports and all sports should spend some time developing basic skills such as running, jumping, throwing, balance, agility, coordination and speed. An all-around athlete will have the ability to play a variety of sports well and specialize later. An early focus on just one or two sports often leads to injuries, burn-out and limited skill development.

### **System Alignment**

Coaches of different teams and different sports often compete for an athlete's time and effort, leading to scheduling conflicts and the overtraining of athletes. Parents need to understand SA Sport for Life LTPD to support alignment of the sports system.

## **ADVICE PARENTS SHOULD CONSIDER**

**FUNDamentals.** Learning a wide range of movement and sport skills provides the basis for lifelong enjoyment of physical activity and a successful athletic career.

**Specialization.** Athletes should not specialize in one sport too soon.

**Developmental Age.** Children mature at different rates. Early maturers must not get complacent, as late maturing athletes will catch up.

**Trainability.** While coaches need to understand trainability, parents need to educate themselves about proper rest, sleep, fluids and nutrition.

**Physical, Mental, Cognitive and Emotional Development.** Parents need to support the efforts of athletes and encourage fair play, effort, skill development and individual improvements.

**Competition Planning.** Competition should serve the development of the athlete. While athletes should always try to win, winning is not the most important factor – learning from competition is. Athletes who compete too much often train too little. Competition also increases costs.

**System Alignment and Integration.** Coaches need to be informed by parents of a child's other activities so that they can adjust individual training programs



## **WHAT IS LTPD**

Developing an elite athlete takes time.

The philosophy behind Long Term Athlete Development is that it takes 8-12 years of proper training and practice at the right time for an athlete to reach elite levels, and that success comes from training, practicing and competing well over the long term rather than focusing on winning in the short term. There is no short cut to success in athlete preparation. Many countries have started to put LTPD models into place to ensure that youth athletes are being developed according to sound training principles that take into consideration the physical, emotional and intellectual developmental levels of each athlete and their individual rate of maturation rather than just their chronological age.

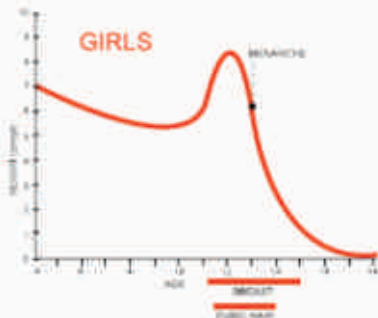
# GROWTH AND DEVELOPMENT

Growth is the change in body size as measured by height and weight. Development is the maturation process related to growth but includes social, emotional, intellectual and motor skill changes.

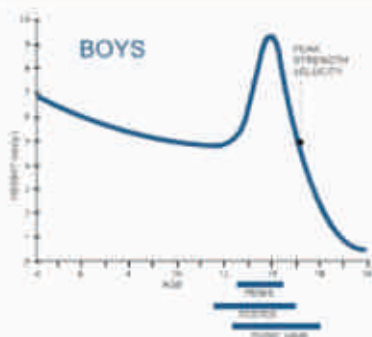
As a child grows their muscles, bones, connective tissue, nervous system and hormonal system all develop at different rates and different times. These differences create what have been called “windows of opportunity” for training i.e. periods of time that the body is going to adapt most effectively to certain types of training. Taking advantage of these windows of opportunity will allow your child to maximize their development and future performance, missing a window of opportunity or having the wrong training emphasis will have a long term negative effect on their performance making it difficult for them to reach their full potential.

Growth, maturity and windows of trainability can be easily assessed by parents through the use of a marker called Peak Height Velocity (PHV).

PHV is a measure of how quickly a child is growing. While children grow from birth through to about age 20, there are variations in the rate of growth (see figure 1). During the first year of life a child will typically grow 25cm, from the ages 5-10 growth rate is usually 5-6 cm per year. During puberty, growth accelerates to an average of 9cm/year for girls and 10,3cm/year for boys. This rate of growth continues for 24-36 months.



PHV in girls occurs at about 12 years of age. Usually the first physical sign of adolescence is breast budding, which occurs slightly after the onset of the growth spurt. Shortly thereafter, pubic hair begins to grow. Menarche, or the onset of menstruation, comes rather late in the growth spurt, occurring after PHV is achieved. The sequence of developmental events may normally occur 2 or even more years earlier or later than average.



PHV in boys is more intense than in girls and on average occurs about 2 years later. Growth of the testes, pubic hair, and penis are related to the maturation process. Peak Strength Velocity (PSV) comes a year or so after PHV. Thus, there is pronounced late gain in strength characteristics of the male athlete. As with girls, the developmental sequence for male athletes may occur 2 or more years earlier or later than average. Early maturing boys may have as much as a 4-year physiological advantage over their late-maturing peers. Eventually, the late maturers will catch up when they experience their growth spurt.

## SCHOOLING

In training program design the demands of school must be considered. This is only limited to the demands placed on individuals by school sports or physical education classes. This includes integrating school academic loads, duties, school related stresses, and timing of exams. When possible, training camps and competition tours should complement, not conflict, with the timing of major schools academic events. Overstress should be monitored carefully. Overstress refers to the everyday stresses of life, like schooling, exams, peer groups, family, boyfriend or girlfriend relationships as well as increased training volume and intensities. Interference from other school sports should be minimized, communication between coaches who are responsible to deliver the training and competition programs are essential. A good balance should be established between all factors and the coach, educator and the parents should be working on this together.

## THE LONG TERM PARTICIPANTS DEVELOPMENT MODEL

The stages of LTPD are based on the concept that sports can be classified as early or late specialization sports. Early specialization sports are defined as those sports

where early specific training is essential to be successful, such as gymnastics, rhythmic gymnastics, diving, figure skating, swimming and table tennis.

Late specialization sports are defined as those sports when early specialization is not required to achieve excellence. These sports include **hockey**, baseball, athletics, soccer, rugby, volleyball, combative or racquet sports, where early specialization is not essential for future excellence.





# Long-term Participant Development distinguishes seven stages of athlete development:

7. Active for life – Enter any time
6. Learn to Win  
Females 21-25 / Males 21-25  
Train to Win  
Females 25+ / Males 25 +
5. Learn to Compete  
Females 15-17 / Males 16-18  
Train to Compete  
Females 17-21 / Males 18-21
4. Train to Train  
Females 11 – 15 / Males 12 - 15
3. Learn to Train  
Females 8 – 11 / Males 9 - 12
2. FUNdamentals  
Females 6 - 8 / Males 6 - 9
1. Active Start – 0 - 6 years of age



## Seven Stages of Long-Term Participant Development



# STAGES

## STAGE ONE: ACTIVE START

**Ages:** 0 to 6 years (female and male)

**Objectives:** The objective of the stage is to learn fundamental movements and link them together into play. Physical activity should be fun and a natural part of a child's daily life. Active, free play is the way young children are physically active.

Hockey does not have a direct role during the Active Start stage other than to support organizations that promote physical activity and physical literacy.



## STAGE TWO: FUNDAMENTALS

**Ages:** Females 6-8, Males 6-9 years of age

**Objectives :** Introduction of the basic hockey skills in a fun, caring and safe coaching environment. At the entry level or FUNdamentals stage of LTPD the children begin the journey by being introduced to hockey at school through exposure to the teaching resource, Playground Markings and other grassroots initiatives. During this phase, which lasts approximately 2-3 years, children can try the sport out and get a basic understanding of pushing, stopping and tackling skills. Those who are identified as having either a more genetic disposition to the game or show keenness will in future be introduced to an accredited local club which will provide the opportunity for more focused development. The emphasis during this Fundamentals phase will be on fun and participation. It will aim to develop crucial physical capacities such as agility, balance, co-ordination and speed (ABC'S) alongside basic hockey-specific skills.



The children will be encouraged to participate in as many other sports as possible.

Early maturing athletes are undoubtedly better athletes during childhood; however, research strongly suggests that late maturing children may have greater potential to reach elite levels in the long term. They are likely to benefit from spending longer in the important early stages that pattern future physical literacy.

Coaches must encourage a positive perception of the activities and of the children themselves. They must create a non-judgmental and unthreatening atmosphere where equal praise is given for all forms of effort and no obvious "school-associated"



## STAGE THREE: LEARN TO TRAIN

**Ages:** Females 8 - 11, Males 9 – 12 years of age

**Objectives :** Learning of the fundamental sports skills

As the players grow and develop they enter the Learn to Train stage. Towards the end of this phase children will likely be playing some formalized hockey matches through either District competition, their Clubs, their Regional age group teams or through school competitions. Coaches should ensure that players aim for a minimum ratio of 2 practice sessions per game during the season if skills are to become more proficient.

The range of maturation is likely to be wide during this phase. Players should concentrate on building upon competencies learnt during the Fundamentals stage, including motor skill and co-ordination development, with an emphasis technical skills development. Whilst players are learning to become better athletes and players all programmes should be fun and activity based. Players are introduced to general physical conditioning and an awareness program to highlight the importance of physical development for future success in hockey.

Coaches need to be positive role models by helping shape the correct values and beliefs. Encourage positive attitudes when faced with challenges and help form coping strategies for winning and losing.

It is important that both players and coaches place a positive emphasis on the link between physical conditioning and hockey success. This phase is likely to pattern a youngster's future attitude toward training and how being fit helps both achieve high performance on the hockey field and leads to a healthier lifestyle.

## STAGE FOUR: TRAIN-TO-TRAIN

**Ages:** Females 11 – 15, Males 12 - 16 years of age

**Objective :** Building fitness and sport specific skills.

This is a critical stage of LTPD. Many of the important physical attributes will be shaped over the next 4 or 5 years. The sensitive period of opportunity (refer to Trainability diagram) to train stamina, speed, and strength exists during the Train to Train phase in addition to maintaining the ABC's and exploring further more specific hockey skills. This stage is about "Building the physical and mental Engine". The most talented players are likely to be selected to play Regional & Provincial hockey during this stage where they will be competing against the best players from other parts of the country at U14 and U16 level. Towards the end of the phase they will likely take the important first steps into adult hockey.

It is vital that levels of competition and involvement in other sports are monitored, if the right balance to assist peak performance is reached. Coaches should aim for a minimum 1:1:1 ratio of play: practice: rest during the season with aspirations towards a 1:5:1 type of ratio. This will mean effective communication between the different interested bodies to ensure that the system remains "player-centered".

It should be remembered that between the ages of 12 and 14/15, the most talented performers might only have 30-40 "meaningful" games in which to impress selectors from league and private academies. Whilst match performances will not be the only criteria for selection, they clearly take on greater significance as the player develops towards the end of this phase. There is a responsibility on all those associated with that player to ensure that he or she has the ratio of play, practice and rest to give themselves the optimum chance of performing to their peak each time they play. Whilst it remains important that players continue to play other sports, for variety and cross training, the balance during this phase is now firmly toward hockey. (other sports should include cricket, soccer, tennis & netball)

Careful monitoring of the growth of the player is critical during this phase using simple measurements of standing height, sitting height and arm span and weight measurements and visual assessment, to ensure that the most appropriate training is introduced at the most appropriate time. Specialization in a position should begin towards the end of this stage.

## STAGE FIVE: TRAIN TO COMPETE



**Ages:** Females 15 – 21 +/-, Males 16 – 21 +/-, years of age

**Objectives :** Refining skills for a particular events and competition.

By the age of 16 for boys and 15 for girls, the players will enter the Train to

Compete stage. During this stage they will further develop their hockey skills,

including technical and tactical work in competitive

situations. Coaches will need to place a strong emphasis on

autonomy and independence as well as creating the right environment for mastery of technique and mental toughness to develop.

Individually tailored physical and mental development programmes are an integral part of improving performance in most sports.

Players will either be playing school, clubs and/or provincial age group hockey.

Prioritization of competition and suitable play, practice and rest ratios will need to be

considered. It is important to establish a Provincial and National U18 squad to provide adequate competition at the elite level. This will offer more retention of promising athletes at this level.

During this stage important transition points take place. It will be important for

coaches to consider appropriate training and practice regimes to ensure that players retain a balanced lifestyle during this important time.

## STAGE SIX: TRAIN TO WIN

**Ages:** Females 21 +/-, Males 21 +/- years of age

**Objectives:** Maximising performance in competition

In South Africa the concept of 'training to win' kicks well in advance of the suggested age ranges. That is part of the cultural problem in schools. Winning comes before development. Hence, it's a bottom line culture. Train to win before mastering the training to train and compete phases, is counterproductive. **The result?** Ill equipped players for the competition phase that follows.

The Train to Win stage should see players have most of the capacities in place to perform at a high level. There should be a focus on team dynamics. The maintenance of physical attributes appropriate to the performer's skill requirements and further development of match specific skills take place. For top provincial players the training year will be divided into a double periodization while an international calendar may result in triple periods of periodization for the national team program.



# STAGE SEVEN: ACTIVE FOR LIFE

## Enter at any age

**Age:** This is when an individual makes the transition from competitive sport to lifelong physical activity, and it may occur at any age.

**Objective:** Continue to be physically active in hockey or in any other sport. Continue to be involved in the hockey community at different capacities.

This stage describes the transition from competitive sport to lifelong physical activity. The sport system should encourage participants to move from one sport to another with ease and from one aspect of sport to another.

Active for life may also involve moving from competitive sport to:

- ? Recreational activities such as running, swimming, hiking, cycling, etc.
- ? Lifelong competitive sport through age group competition such as Master's Games
- ? Sport-related careers, such as coaching, officiating, sport administration,
- ? small business enterprises, or media
- ? Volunteer positions, as coaches, officials, or administrators.

Training, racing competitions and recovery programmes should fit the needs of the athletes for whom they are intended. Masters players need programmes that take into account how aging affects strength, flexibility and endurance.

A positive experience in sport is the key to retaining participants after they leave the competitive stream. Sport can begin a philosophical shift.



# GLOSSARY OF TERMS

## Adaptation

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 upon 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.

## Age:

**Chronological Age:** the number of years and days elapsed since birth.

**Developmental Age** refers to the degree of physical, mental, cognitive, and emotional maturity.

Physical developmental age can be determined by skeletal maturity or bone age after which mental, cognitive, and emotional maturity is incorporated.

## Relative Age

**Training Age** refers to the number of years in training, sampling different sports.

**Sport-specific Training Age** refers to the number of years since an athlete decided to specialize in one particular sport

## Ancillary capacities:

The knowledge and experience base of an athlete, including warm-up and cool-down procedures, stretching, nutrition, hydration, rest, recovery, restoration, regeneration, mental preparation, and taper and peak. The more knowledgeable athletes are about these training and performance factors, the more their training and performance levels will be enhanced.

## Childhood

A time period from the end of infancy (the first birthday) to the onset of puberty that is characterized by relatively steady progress in growth and maturation and rapid progress in neuromuscular or motor development. This time period is often divided into early childhood (which includes preschool children aged one to five years), and late childhood (which includes children aged six through to the onset of puberty).

## Competition

The period of time when all components of a participant's training are successfully integrated into achieving excellence.

## Development

The passage toward, or percentage of maturity achieved, of various traits including social, emotional, intellectual, physical and motor qualities.

## Growth and Maturation

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

## Participant:

One can participate in recreation and/or physical activities and in sport as a recreational or competitive participant.

## Peak Height Velocity (PHV)

The maximum rate of growth in stature during growth spurt. The age of maximum velocity of growth is called the age at PHV. Also referred to as the adolescent Growth Spurt.

## Periodization

*(It is essentially time management: it describes how many hours of training and competition are appropriate at each stage of LTPD, including the appropriate ratios of total training hours to total competition hours, as well as time for programmed rest and recovery.)*

Is a system of structuring of short and long-term training, competition and recovery? periods to provide optimum performances at a given date.

- Single peak refers to one preparatory and one competition period within the year
- Double peak refers to two distinct preparatory and two distinct competition periods within the year
- Multiple peak refers to competing all year round while maintaining physical and technical skills

## Physical Literacy

Is the mastery of fundamental movement skills and fundamental sport skills and decision making . “A physically literate person moves with poise, economy and confidence in a wide variety of physically challenging situations, is perceptive in reading all aspects of the physical environment, anticipates movement needs or possibilities and responds appropriately with intelligence and imagination” (Whitehead, 2001)

## Puberty

This phase of growth begins with onset of hormonal changes in the reproductive system and ends with sexual maturity.

## Readiness

Refers to the level of growth, maturity, and development that enables a child to perform tasks and meet demands through training and competition. Readiness and optimal periods of trainability during growth and development of young athletes are also referred to as the correct time for the programming of certain stimuli to achieve optimum adaptation with regard to motor skills, muscular and/or aerobic power.

## Specialization

Refers to athletes who are limiting their athletic participation to one sport that is practiced, trained for, and competed in throughout the year

## Trainability

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

## REFERENCES

FIELD HOCKEY CANADA

ENGLAND HOCKEY

SA BASEBALL LTPD

SPORTS LEADER COACHING MANUAL

LEVEL 1 ; LEVEL 2 & LEVEL 3 COACHING MANUAL

## Summary

This document is designed to give you the information you need on how athletes develop so that you can make informed choices about the type of activities that are most appropriate and beneficial for the young hockey player as they continue to grow and develop in the sport.

The LTPD Model forms the cornerstone of SA HOCKEY'S strategic plan and our education & training is aligned to the LTPD model.

# SA HOCKEY LTPD PARTICIPANTS PATHWAYS

STAGE CHRONOLOGICAL AGE		COACHING LEVEL METHOD	MODIFIED FULL FIELD	FOCUS CHARACTERISED BY
<b>ACTIVE START</b>	0-6 YEARS			Unstructured ( free) play Building confidence of physical literacy in a positive surrounding
	<b>FUNDAMENTAL</b>	LEADERSHIP LEVEL 0 GUIDES	Under 6 Modified 3vs3	Generic movement skills Fun & Safety ABC's of Athleticism
	Under 8 Modified 6vs6		Participation Fun & Safety	
	Under 10 Modified ¼ field 8vs8		Participation Fun + Safety Physical activities Technical Skills Zonal	
<b>LEARN TO TRAIN</b>	Under 12	LEVEL 1 TEACHES	Modified ½ field	Participation Fun + Safety More structured Technical skills Zonal Talent Scouting ( Detection)
	Under 13		Full field	More structured Participation Zonal + Regional Technical skill & T actual awareness Talent Identification
<b>TRAIN TO TRAIN</b>	Under 14	LEVEL 2 CHALLENGES	Full field	Participation Enjoyment Talent Identification Zonal + Regional
	Under 16		Full Field	Participation High Performance(Regional) Zonal/District/Provincial
<b>TRAIN TO COMPLETE TRAIN TO WIN</b>	Under 18	LEVEL 2 LEVEL 3 FACILITATES EMPOWERS	Full Field	Participation High Performance(National) Zonal/District/Provincial
	Under 21		Full Field	Participation High Performance Zonal/District/Provincial/International
	Seniors		Full Field	Participation High Performance Zonal/District/Provincial/International
<b>ACTIVE FOR LIFE ENTER AT ANY STAGE</b>			Full Field	Social ENJOYMENT VOLUNTEERS





