

AGES 16 / 18 / 19 AND UNDER
American
Development Model



LESSON WORKBOOK



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The American Development Model (ADM) is a nationwide initiative that provides local associations across the country with a blueprint for optimal athlete development that focuses on age-appropriate training utilizing long-term athlete development principles.

Recommendations have come from experts in ice hockey, child development, physical education and cognitive and emotional development. The ADM is about designing, implementing and committing to continual improvement of a world leading, age-appropriate training and competition model for kids. The ADM is about raising the bar for our players, coaches and administrators. We want our young players exposed to world class coaching at every level.

TRAIN TO TRAIN

Ages 11-15 females • Ages 12-16 males

The objective of the Train to Train stage is to further develop sports specific skills, introduce enhanced competition and start to emphasize support training to continue development of speed, strength and stamina while maintaining flexibility.

General Description of the Train to Train Stage

This is a window of accelerated adaptation to aerobic, speed and strength training, and for maximum improvement in skill development. Good training habits are developed during this stage. Technical and fitness training programs should be individualized. While formal competition is included, the focus remains on learning the basics through training, with competition being of secondary importance. Training volume will increase as the athletes progress through the stage. Towards the end of this stage, athletes will likely begin to specialize in ice hockey. However, it is still recommended to participate in at least one complimentary sport.

USA Hockey's Key Focus for This Stage

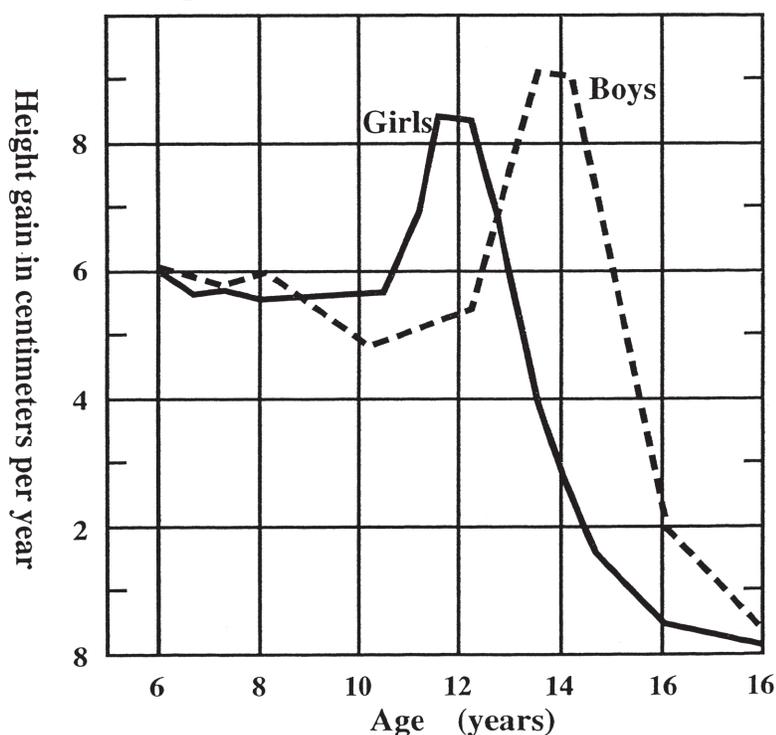
Building the physical engine – endurance, speed and core strength:

- Develop strong technical skills.
- Begin to become more specialized in hockey late in this stage.

Monitoring

Note that both aerobic and strength trainability are dependent on the maturation levels of the athlete. For this reason, the timing of training emphasis differs depending on whether athletes are early, average, or late maturers. Monitoring for PHV is crucial, as almost all participants will move through their major growth spurts during this stage.

- Consider growth spurt in programming. A decrease in coordination may be expected during this stage. Measure for PHV every three months.
- Monitor flexibility and emphasize flexibility training given the rapid growth of bones, tendons, ligaments and muscles.
- Monitor general endurance throughout the stage.





LTAD Window of Opportunity

The Learn to Train and Train to Train stages are the most important stages of athlete preparation. During these stages we make or break an athlete!

- Increased strength is optimized for girls one to two months after the peak of PHV.
- Increased strength is optimized for boys 12-18 months after the peak of PHV.
- The endurance window is between 11 and 15 years of age.
- The second speed window for boys is between 13 and 16 years old and, for girls, is between 11 and 13 years old.

Components of the Hockey Train to Train Stage

Physical Development

Proper and regular monitoring of physiological adaptation to training is essential. Continue monthly monitoring for PHV. The average age for girls reaching PHV is 12 and for boys is 14. PHV is the reference point to begin a strength training program.

Continue participation in complementary sports for:

- Skill
- Speed
- Endurance
- Lifestyle

Introduce a specific fitness framework. Early in the stage, off-ice training focuses on the following:

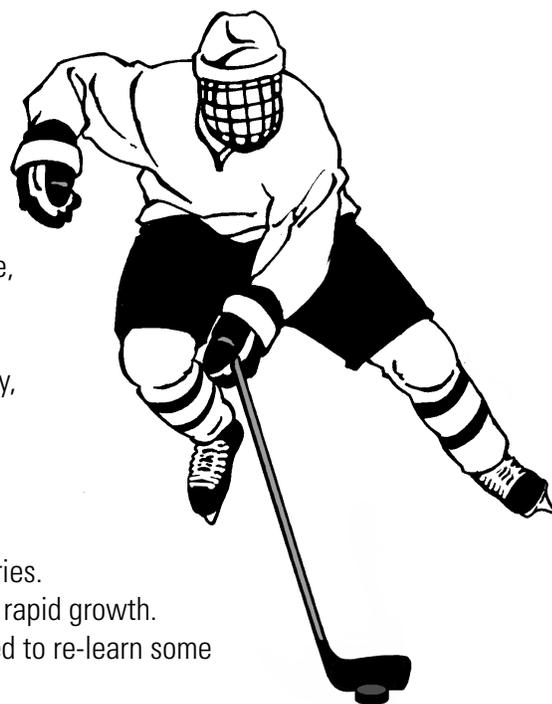
- Introduction of free weights
- Injury prevention exercises (high reps, low intensity, focus on execution)
- Core and stabilizer strength
- Explosive arm and leg power
- Maximized speed development
- Introduction to physical testing and functional assessments two times a year

Further in stage:

- Maximum strength (females and early developing males).
- Strength endurance.
- Power/speed endurance.
- Build a level of fitness that allows the athlete to maintain high volume, high quality training.
- On-ice and off-ice training to develop endurance.
- Maximize stamina/aerobic capacity window of trainability for recovery, regeneration and training capacity.
- Monitor training for high volume, low intensity sessions.

Throughout the stage:

- Provide variation in off-ice and on-ice activities to avoid over-use injuries.
- Emphasize flexibility and stretching exercises to manage the effect of rapid growth.
- With rapid growth and changes in body proportions, athletes may need to re-learn some skills that were previously refined (adolescent maintenance).





Psychological Development

Provide training and competition opportunities that focus performance on a preferred position (forward, defense or goalie). Mental skills learned in the previous stage of athlete development should continue to be practiced and incorporated into all types of training and competitive situations.

The athlete should:

- Take personal responsibility for training, preparation, performance and recovery
- Bring consistent effort to training and competitions
- Become involved with coaches in decision-making (e.g. goals, position specific development, training plan)
- Identify “what works” in the ideal performance state
- Be coachable – accept constructive criticism and work with other coaches or athletes

Continue basic mental skills development:

- Develop coping strategies, goal setting, imagery and self-awareness.
- Be introduced to the idea of self-reflection after training or competitions.
- Have a training diary.
- Athletes in this stage are ready to learn how to focus. They can understand that what they feel and think affects their performance, and learn how to develop control over these feelings and thoughts.
- Effective goal setting becomes more important in this stage and is related to outcomes, process and performance.
- Introduce athletes to breathing and relaxation skills.
- Teach athletes how to communicate effectively with coaches and how to ask for feedback.

Training and Competitive Environment

16 & Under (Midget)

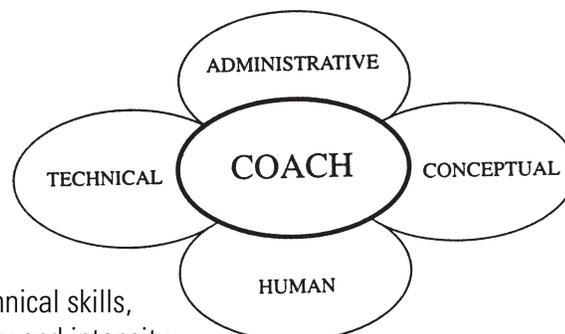
High Performance Track

- Training/Competition Ratio: 60% training, 10% competition specific training (exhibitions/scrimmages) and 30% competition.
- Training Volume: Play 4 to 5 times per week, with hockey session lengths of 60 to 80 minutes at the 14 & Under (Bantam) and 16 & Under (Midget) levels. Begin strength training two times per week to coincide with PHV. Use speed training 2-3 times per week.
- Training Year: 4 weeks per month, 9 months per year – double periodization calendar will aid structuring and help maintain player interest
- Team Composition: Team composition should include a roster of 16 skaters and two goaltenders (10 forwards, six defensemen, two goalies).
- Team Structure: Teams in these age groups are made up of players of like ability without restrictions.
- Competition Format: 16 & Under (Midget) with 2.5 hours of ice time play 20-minute stop-time period games with one ice resurface after the first period and a second ice resurface after the second period.
- Overall Activity Ratios: 45% hockey, 35% fitness, 20% other sports
- Complimentary Sports: Athletes are encouraged to participate in at least one complimentary sport



16 & Under (Midget) High Performance

- 160 total ice touches per year
- 4-5 times per week
- 9 month season
- 120 practices and 40-50 games
- 16 skaters and two goalies per team



Coaching Considerations

- Coaches should still spend a significant amount of time refining technical skills, but the emphasis will gradually change to increase both the difficulty and intensity.
- Use both high volume/lower intensity training and high intensity/low volume training.
- Include more skill execution in tactical situations. Skills must be used in combination with decision-making.
- Tactics and strategy must be appropriate for the age, but the volume of information presented at this stage will increase with age.
- Coaches should plan training loads with consideration to the athletes competition, rest and recovery.
- Attention to individual growth patterns of players must be considered during this stage and the coach must be able to take advantage of the relative training windows.

Technical Development

- Continue to refine skating skills.
- Introduce position specific skills:
 - Forwards
 - Defensemen
 - Goalies
- Continue to develop deceptive skills.

Tactical Skills

- Playing the off-wing or off-side defenseman positions
- Offensive support concepts
- Defensive support concepts
- Introduce basic team systems of defensive zone coverage and an aggressive forecheck.
- Introduce active read-and-react penalty killing.
- Introduce power-play concepts without specific individual positions. Encourage interchangeability.
- Emphasize transition play – offense to defense and defense to offense.
- Emphasize quality playing habits.
- At the 16 & Under (Midget) level, begin to introduce adaptations to various overall team strategies.

On-ice time should be spent on 70% offensive skills, tactics, and concepts; and 30% defensive skills, tactics, and concepts.

Ancillary Skills

- Athletes in this stage should be responsible for doing a proper warm-up and cool down as part of practice.
- They should also be developing a competition warm-up procedure.
- Athletes should be aware of the importance of proper nutrition and hydration for competition days.

Lifestyle

Optimize training and education in:

- Cultural and lifestyle habits
- Smoke- and tobacco-free environment
- Alcohol-free environment
- Drug-free sport
- Wearing proper safety equipment
- Care and maintenance of equipment
- Proper nutrition, hydration and recovery
- Self-management
- Taking responsibility for actions
- Respect for others
- The Code of Conduct for USA Hockey

LEARN TO COMPETE

Ages 15-18 females • Ages 16-18 males

The objective of the Learn to Compete stage is to prepare athletes for the competitive environment; continue to refine technical skills and ancillary skills; and develop the physical attributes.

General Description of the Learn to Compete Stage

All of the objectives of the Train to Train stage must be achieved before the objectives of Learn to Compete can begin. This is the time to optimize fitness preparation and skills and begin to specialize in ice hockey. Training should be individualized to the athlete’s particular needs in skill development, mental preparation, fitness and recovery. During this stage, training volume will increase, as does training intensity. Competitions and tournaments become more important and the focus shifts to performance. Athletes learn to prepare for competition and learn to handle competitive pressures in any situation. The training season is longer and event specific. This is the time to consolidate individual strengths and rectify weaknesses.

USA Hockey’s Key Focus for this Stage

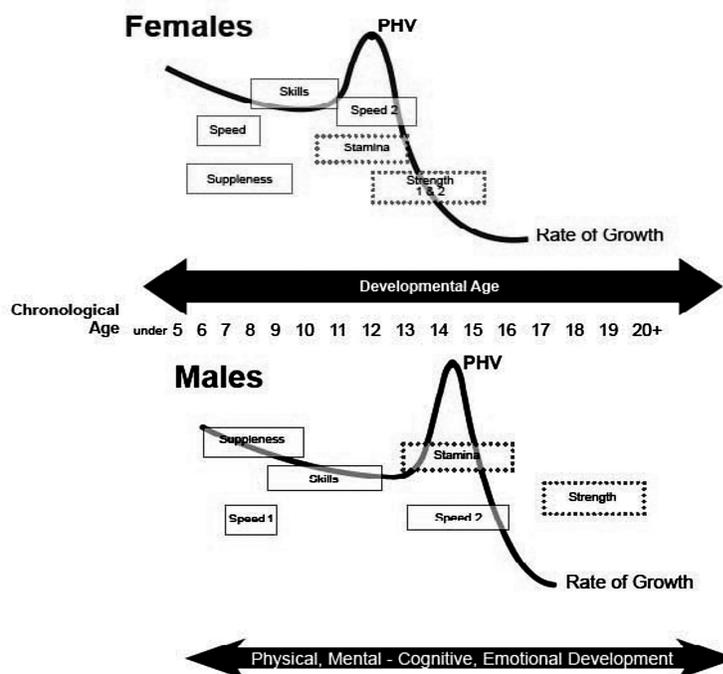
- Refine technical skills
- Gain confidence in a variety of competitive situations
- Good decision-making skills
- Make appropriate and measurable improvements in endurance, speed and strength

Monitoring

- Monitor development of endurance, strength and speed.
- Monitor fitness – endurance, core strength, flexibility.

LTAD Window of Opportunity

- Speed window #2 for boys early in stage
- Strength window for boys is 12-18 months after PHV





Components of the Hockey Learn to Compete Stage

Physical Development

Optimize endurance, strength and speed training:

- The athlete must have sufficient levels of fitness to withstand the demands of training and competition without sustaining injuries or burnout.
- Develop individualized programs for fitness and recovery.
- Ensure progressive load in training.

Psychological Development

- The athlete should have well-developed mental preparation skills, and should continue to refine these skills.
- Competition becomes more important and athletes must learn to perform on demand.
- Training and practice in mental preparation will help the athlete cope with the stresses associated with training, tournaments and selection, and will contribute to their overall development as competitive athletes.
- Athletes should have input in setting training goals and priorities, and should be included in decision-making process.
- Athletes are capable of self-coaching and should be encouraged to think for themselves rather than relying solely on coach feedback.

Training and Competitive Environment

High Performance Track

- Training/Competition Ratio: 50% training, 10% competition specific training, and 40% competition
- Training Volume: Play 5 to 6 times per week, with hockey session lengths of 60 to 90 minutes at the 18 & Under Midget level. Use 4 to 6 fitness sessions per week, accounting for the strength development phase.
- Training Year: 4 weeks per month, 9-10 month per year – double periodization calendar will aid structuring and help maintain player interest
- Team Composition: Team composition should include a roster of 18 skaters and 2 goaltenders (12 forwards, 6 defensemen and 2 goalies).
- Team Structure: Teams in these age groups are made up of players of like ability without restrictions.
- Competition Format: 18 & Under (Midget) with 2.5 hours of ice time should play 20-minute stop-time period games with one ice resurface after the first period and a second ice resurface after the second period. 18 & Under (Midget) with two hours of ice time should play 18-minute stop-time period games with one ice resurface after the first period and a second ice resurface after the second period.
- Overall Activity Ratios: 60% hockey, 40% fitness
- Complimentary Sports: Athletes are encouraged to participate in outside sporting recreation

18 & Under (Midget)

High Performance

- 200+ total ice touches per year
- 5-6 times per week
- 10 month season
- 140-150 practices and 50-60 games
- 18 skaters and two goalies per team



Coaching Consideration

- Coaches must plan with regard to training volume and intensity, considering competition and rest and recovery.
- Preparation must be detailed and well communicated.
- Learn to compete within a team structure, placing team before yourself.
- Intensity of training is high.
- On- and off-ice decision-making skills are of high priority during this stage.
- Team play and accountability to the team must always be enforced.
- Players must be able to transfer the decisions made in practice to competition.
- Emphasize on speed of execution.
- Emphasize on off-ice training.

Technical Development

- Refine skills at a high speed.
- Execution of skills must be detailed and performed in tactical situations.

Tactical Skills

- Speed of transition from offense to defense and defense to offense
- Speed of decision-making skills

Ancillary Skills

- Ensure that key support systems (fitness monitoring, recovery and regeneration, psychology, nutrition and health needs) are in place and integrated with the training program.
- Stress regular, year-round aerobic and strength training.
- Athletes should refine and individualize their own ancillary capacities.

Lifestyle

- Refine the skills listed in the Train to Train stage.
- The athlete assumes increasing responsibility for managing his or her competitive and training schedules, deadlines, registrations etc.
- The athlete assumes responsibility for his or her own behavior as representative of USA Hockey, his or her club, state and country.



RECOMMENDED TRAINING STRUCTURE

TRAINING STRUCTURE FOR TEACHING THE 3 S'S

There are three broad areas of training in a hockey player's development. One of the constant challenges facing the coach is how to get the most out of your players with the precious, and often limited, ice time you have for training. The following training structure will give you some recommended guidelines related to these three areas of training.

SKILLS – Hockey Skills & Habits Training

This begins as basic fundamental skills and progresses to include a more complex combination of skills as the players get older or more proficient. Habits include things like facing the puck, stopping at the net, etc.

- Skating
- Puck control
- Shooting
- Passing
- Body contact

SENSE – Hockey Concepts and Awareness Training

Offensive and defensive awareness with and without the puck is key. This includes the ability to read the level of pressure by an opponent and make correct decisions according to the play (read and react). Concepts involve development of all of the key hockey concepts that are used by all players. This would include but is not limited to:

- Moving to open space
- Offensive- and defensive-side body position
- Offensive support and defensive support
- Puck pressure and containment

Small area games with a distinct purpose are the best way to develop these mental skills in our game.

SYSTEMS – Team Play Training

Development in this area provides for positional play within the team's designated structure. This would include but is not limited to forechecking patterns and defensive zone coverage structure.

MITES		
SKILLS	hockey skills and activities	85%
SENSE	small area games and awareness training	15%
SYSTEMS	team play training	0%
SQUIRTS		
SKILLS	hockey skills and habit training	75%
SENSE	hockey concepts and awareness training	15%
SYSTEMS	team play training	10%
PEEWEE		
SKILLS	hockey skills and habit training	65%
SENSE	hockey concepts and awareness training	25%
SYSTEMS	team play training	10%
BANTAM		
SKILLS	hockey skills and habit training	50%
SENSE	hockey concepts and awareness training	35%
SYSTEMS	team play training	15%
16U MIDGET		
SKILLS	hockey skills and habit training	50%
SENSE	hockey concepts and awareness training	30%
SYSTEMS	team play training	20%
18U MIDGET		
SKILLS	hockey skills and habit training	50%
SENSE	hockey concepts and awareness training	25%
SYSTEMS	team play training	25%

Diagram 3-2. Age-specific chart detailing percentage of time devoted to each are of training.

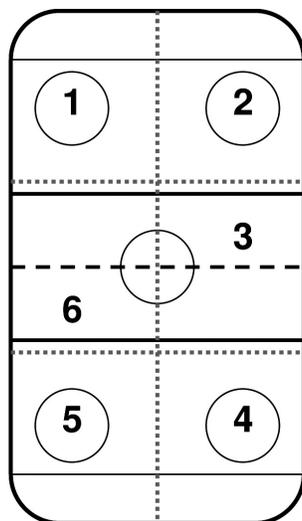
PRACTICE PROGRESSION - ICE UTILIZATION

The ice utilization shows some of the recommended methods for dividing the ice into stations. Station work will help your players get more puck touches and the necessary repetitions to continually develop and refine basic skills. Ice time is your most valuable resource as a coach and skill-based practices featuring small area games and a variety of stations will help you run efficient practices with a high energy level.

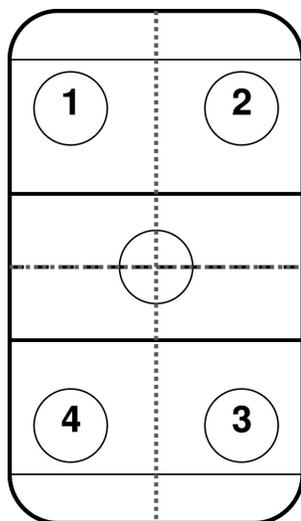


Practice Progression – Ice Utilization

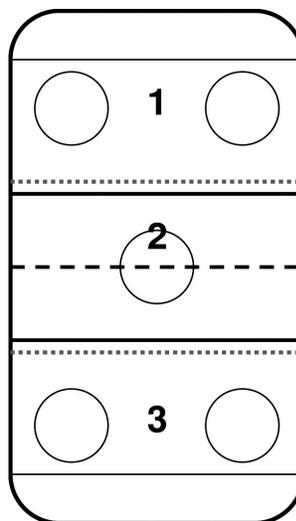
8U Mites
6 Stations



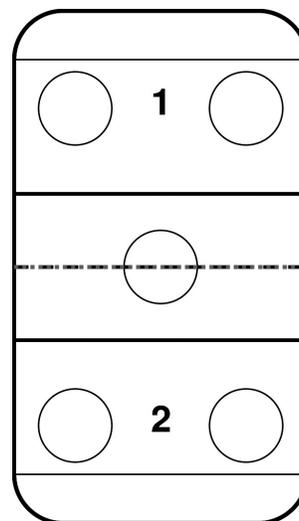
10U Squirts
4 Stations



12U Pee wee
3 Stations



14U Bantam
2 Stations



Older age groups can incorporate stations breakdowns from younger groups

