



US LACROSSE ATHLETE DEVELOPMENT MODEL (ADM) Exploding the Myths of Youth Sports

1. *MYTH: The best way to train youth sports participants is through the professional training model.*
 - Pro model is based on:
 - Identifying the “best” athletes as early as possible;
 - Training the “best” athletes by the “best” coaches;
 - Intensive competition.
 - Pro model fails to consider the Relative Age Effect (RAE):
 - Impact of chronological birthdates;
 - Rates/degrees of physiological and psychological development;
 - Emphases on tryouts and winning exacerbates RAE problems and issues
 - Entrenched pro model mindset of coaches and parents based on false assumptions, faulty logic, weak evidence, and fear/anxieties.

2. *MYTH: The “elite” system is the best training environment for exceptional youth athletes.*
 - “Elite” implies an exceptional system for exceptional athletes
 - Ignores RAE and placeholdering;
 - Fails to consider early vs late maturers;
 - Disproportionate imbalances between training and competition/winning;
 - Oblivious to long-term outcomes.
 - Elite programs promote the “Rocky Road Theory”
 - Athletes must be pushed beyond their comfort zone/level;
 - Squeeze the lemon rather than grow the lemon.
 - Self-Organized Theory –
 - Underlying science of non-linear dynamics and Chaos Theory;
 - Goal is not based on winning but learning how to learn;
 - Learning comes from searching for success through failure;
 - Athletes must learn to learn largely on own.

3. *MYTH: The highest achievers in youth sports are the athletes identified at the earliest ages.*
 - Based on the misimpression that early maturers have the long-term advantage
 - Early maturers display physical skills i.e. running faster, jumping higher, hardest shot (only 1/3 of the equation);
 - Late maturers tend to develop and display advanced IQ/literacy i.e. perception and decision-making (2/3 of the equation) out of necessity and competitive exigencies.



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- Research indicates that athletes at professional level(s) are disproportionately represented by late birthdays and late maturers (Reverse RAE)
- Peak Height Velocity (PHV) Growth
 - PHV is a physiological dividing line; can be measured in variety of ways including endocrine system;
 - Athletes between 5-14 years old not psychologically or physiologically capable of benefitting from pro model;
 - Athletes at 15+ can be encouraged and developed through greater levels of structured, disciplined training and intensive competition.
- 4. *MYTH: Youth coaches are uniquely qualified to assess talent and determine which athletes hold the greatest promise for success.*
 - Coaches look at the wrong things when assessing talent
 - The tendency is to overemphasize physical attributes (execution) rather than IQ/Literacy (perception, decisions);
 - Talent = Perception + Decision-Making + Execution;
 - Limited pool of experienced coaching candidates contributes to this tendency (i.e. daddy-ball parents; recent-graduate former players; etc.).
 - Loading Theory and Practice
 - Overload
 - Athletes pushed to play above current developmental level;
 - Participation is disproportionately dependent on excessive competitions;
 - Competitions not geared or calibrated for developmental level (i.e. full-field);
 - Athletes forced to prematurely “specialize” in one sport, year-round;
 - Safety rarely considered causing injury and burnout;
 - Recovery essential but not emphasized.
 - Underload
 - Athletes play at current developmental level;
 - Training is the primary developmental focus, not competition;
 - More opportunities for active engagement and learning (small-sided games);
 - Multi-sport participation critical to comprehensive physiological, psychological and emotional development.
 - Multi-sport engagement reduces injury, mitigates burnout tendencies, and maximizes cross-over effects of technical knowledge and competencies.



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COMPARATIVE ANALYSIS OF PRE- AND POST-PEAK HEIGHT VELOCITY ATHLETES	
Pre-PHV (5-14 years)	Post PHV (15+)
Unconscious	Conscious
Underloading	Overloading
Grow lemon	Squeeze lemon
Play/fun	Deliberate practice
Backyard	Traditional field environment
Small-sided games (Indoor/box)	Big surface/Full-field competition