

**Off-Ice Conditioning For Youth Hockey Players:
Injury Prevention and Performance Enhancement: Dynamic Warm-Up**



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Background

Anthony Donskov

Founder, Donskov S&C Inc., B.Sc., CSCS, NASM-PES

- Founder Donskov Strength and Conditioning, Inc.
- Certified Strength and Conditioning Specialist.
- Certified by the National Academy of Sports Medicine as a Performance Enhancement Specialist.
- Currently pursuing Masters Degree in Exercise Science.
- Specializes in hockey specific functional training.
- Member of 2006-2007 Atlanta Thrashers Training Camp.
- Level V USA Hockey Coach.
- Author of several off-ice conditioning articles currently displayed on the Atlanta Thrashers (NHL) web site.
- Director/Head Instructor of the “OV” Hockey School, L.L.C.
- Played two years of professional hockey in the Central Hockey League. Named 2003 CHL “Man of the Year.”
- Varsity Hockey player (1997-2001) at Miami (OH) University.
- Clients include NHL players, college hockey players and junior/high school athletes.
- Graduate of Miami (OH) University, B.Sc. Business Administration.

Statements:

- “Mistakes occur most often because of fatigue.” -Scotty Bowman
- Proper technique/form are the first components that are compromised due to poor levels of fitness.
- A better conditioned athlete can perform at higher levels, for longer periods of time vs. non conditioned athlete.
- A properly conditioned athlete can avoid injuries caused by fatigue and poor bio mechanics (sprains, strains, other soft tissue injuries).
- A properly conditioned athlete holds a competitive advantage related to on ice performance vs. non conditioned athlete.

Facts:

- Our bodies (Central Nervous System) are not designed to isolate muscle during functional movement. Our bodies are designed to recruit muscle synergists to aid in daily function both on, and off the ice.
- 1995 Meta-Analysis on Youth Ice Hockey injuries studied 66 players (Squirt, Pee Wee, Bantam) throughout the course of the hockey season. Total of 14 injuries occurred. Most common injuries included: contusions, fractures, strains and sprains.
- Most common anatomical injuries: arms and shoulders.
- According to the NASM: “Est.. 80,000-150,000 ACL injuries occur annually”. Prime age group of injury 15-25.
- Most Sports injuries occur in the transverse plane during eccentric muscle contractions.
- Most training regiments are uni-planar and often incorporate artificial stabilization.

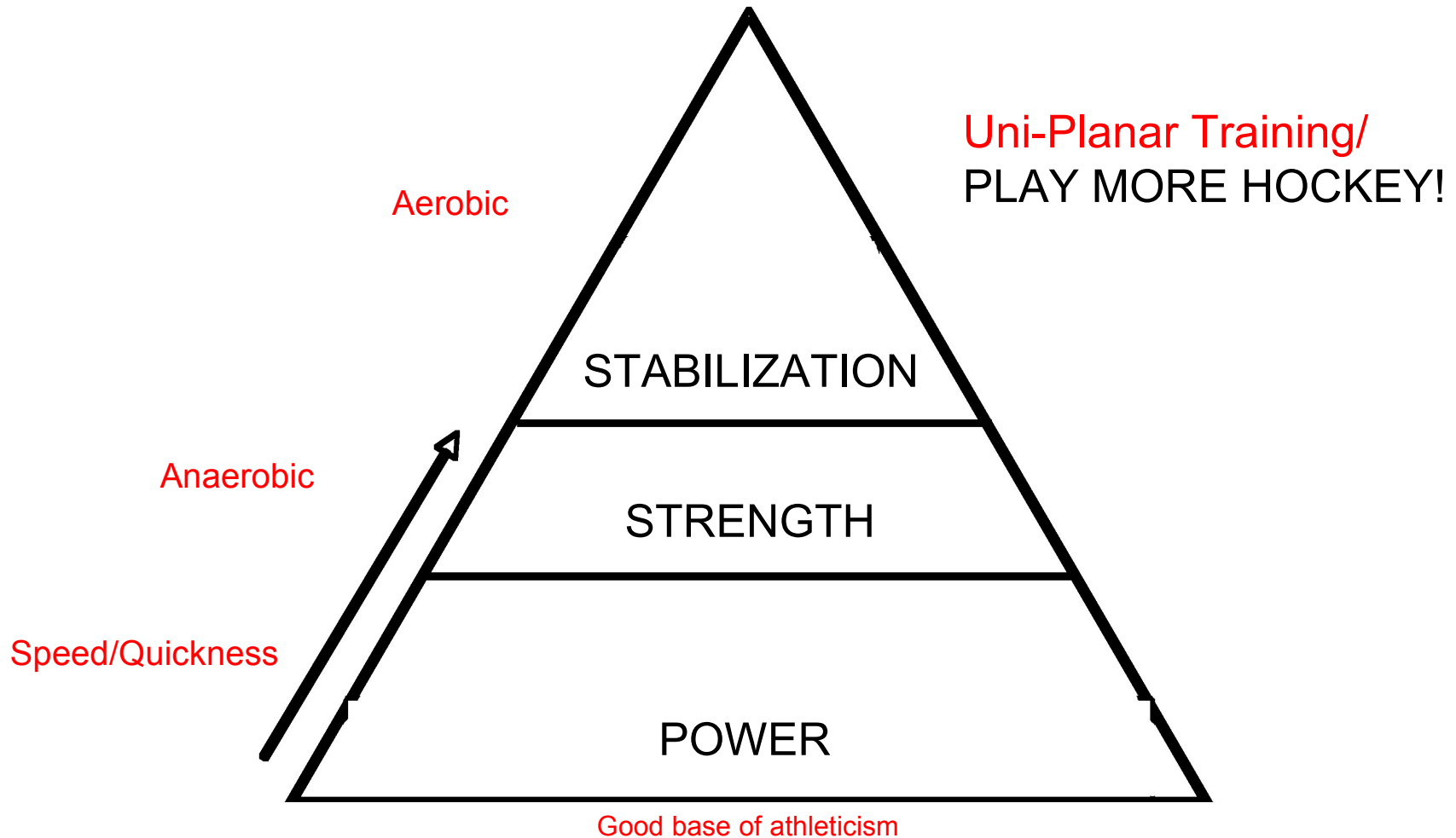
Youth Conditioning

- At what age can a player safely initiate training protocol?
- There is no correct answer to this question, however, chronicle age does NOT play a factor. Maturation of the athlete is the most important element in relation to when a player can initiate training.

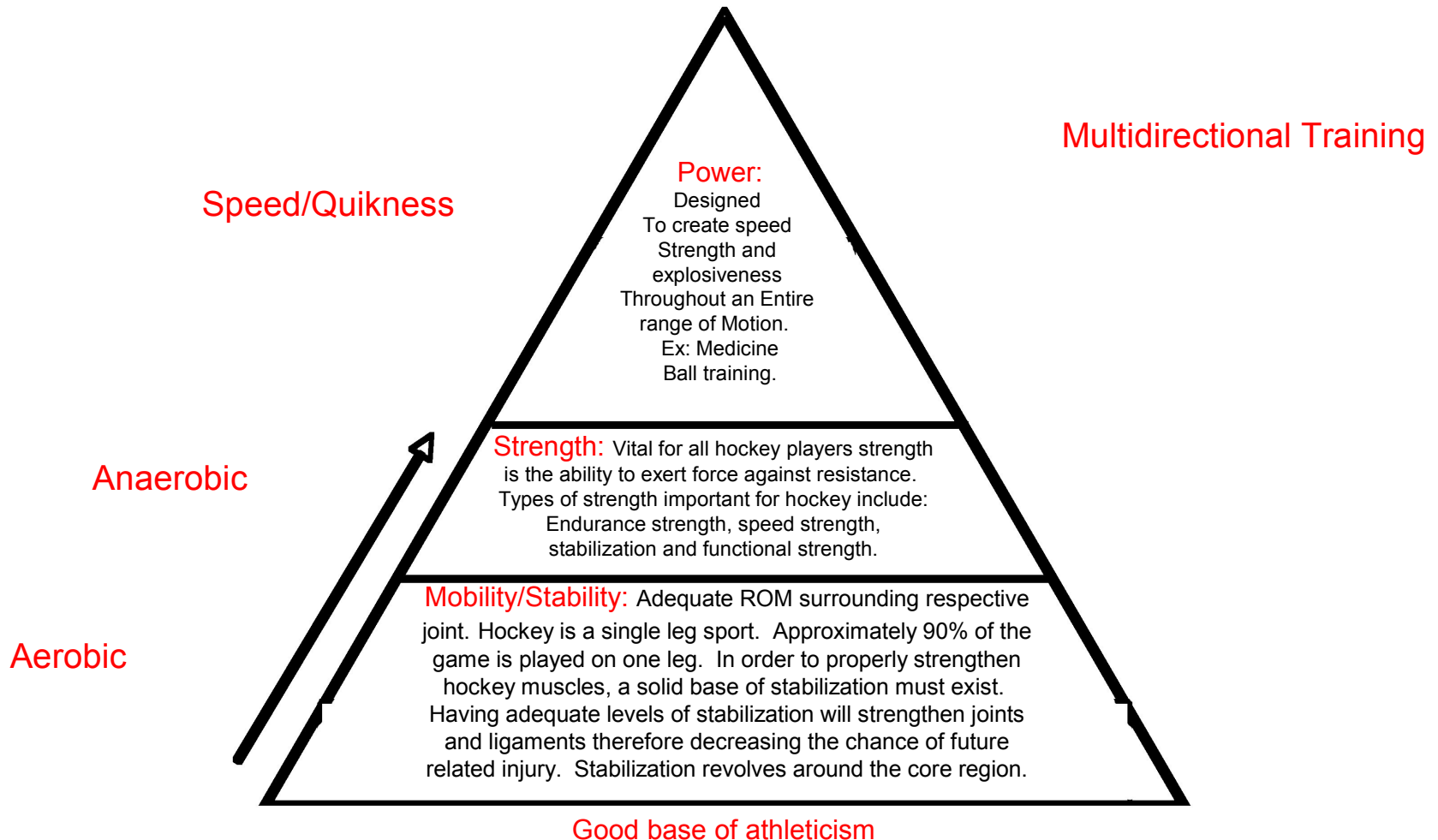
Introduction

- Hockey is an extremely demanding sport utilizing mobility, stability, strength, speed, quickness, agility, balance (neuromuscular efficiency) and reactive abilities. In order to properly train, the serious hockey player must focus on functional activity. Functional training is an integrated, multi-planar, training style that incorporates acceleration, deceleration and stabilization at multiple speeds in varying body positions. The hockey player must demonstrate all of these movement patterns in different planes during the course of competitive play. It is important to incorporate an Integrated Training approach when starting your program.

Problems with Off-Ice Conditioning



Off-Ice Conditioning Philosophy



“Training material must be selected in such a way that each exercise could to the maximum be brought nearer to those movements an athlete makes during play. Whether he squeezes out, shoves the barbell, practices with an exercise machine to stretch the muscles in his hands, jumps or runs. The hockey elements must be present even in playing basketball, soccer and other play exercises.”

-Anatoly Tarasov (The Father of Russian Hockey)

The Dynamic Warm-Up

- Typical Warm-Up for youth players:
- Static Stretching (5-10 minutes)
- Static Stretching on-ice (5-10 minutes)

The Dynamic Warm-Up: Youth Players

What is a Dynamic Warm-Up?

A Dynamic Warm-Up focuses on promoting injury prevention/performance enhancement through:

- Warming up the bodies core temperature.
- Engaging the Central Nervous System.
- Focusing on movement patterns in all planes of motion.
- Activating prime movers and stabilizers.
- Should have a linear, lateral and transverse (rotational) element.

The Dynamic Warm-Up: An Integrated Protocol

- The dynamic warm-up should follow a logical progression to enable the athlete to adapt to the intensity and provide a safe platform to solicit tissue extensibility.
- Progression should follow:
 - Slow to Fast
 - Simple to Complex
 - Low force to high force
 - Stable to unstable
 - Linear to Lateral to Rotational

ALWAYS STRESS QUALITY BEFORE QUANTITY, SPEED, POWER, AGILITY.

Articles: Written by Anthony Donskov, B.Sc., NASM, PES

- Please feel free to read my off -ice conditioning article located on the Atlanta Thrashers web site www.atlantathrashers.com and www.ovhockey.com
- The articles are located under the HDRC (Hockey Development Recourse Center) under development articles. These articles address: Off-Ice Training for Youth Players, and Functional Movement for Hockey Players. Enjoy!

Contact Information

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Testimonials

"I have had the opportunity to train with Anthony and it was a contributing factor to my success as a professional athlete. He challenged me using specific training methods for ice hockey which pushed me towards reaching my ultimate goal of playing in the National Hockey League. Anthony brings a certain dedication and intensity that is unmatched in the field of sports training. Thanks Anthony, for pushing me to performance levels I never thought possible from myself."

Pat Leahy
Nashville Predators, NHL

"Training with Anthony Donskov in the summer has helped me to increase both strength and speed. The work that we have done will be integral for me to make a good impression in training camp. Anthony's knowledge, passion, and commitment to helping me in the summer has been greatly appreciated."

Mike Glumac
St. Louis Blues, NHL

"I can't emphasize enough how important the Dryland Training we received from The "OV" Hockey School was to our success this year. Our Skating, Stamina, and Power were all increased this year, leading to the winningest season in our 29 year history. We were able to maintain a high level of play throughout the entire game and be more physical due to our added strength and conditioning. I would recommend Anthony Donskov and his team at Donskov Strength and Conditioning, Inc. to any team wanting to improve their chance for success."

John Graham
Head Coach, Upper Arlington High School

"Having Anthony work with our teams was a huge benefit to our kids and our program. My U18 players really took to Anthony's passion and knowledge of hockey and conditioning. The players benefited immensely from the in season maintenance program he ran for us. I can tell you his program reduced our time lost due to injury plus it had a positive influence on our game conditioning."

Ed Gingher
Ohio "AAA" Blue Jackets Program Coordinator and U18 Head