

# Hockey Strength and Conditioning

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## About Me

**Endeavor Sports Performance (Pitman, NJ)**

- Team Comcast Tier I Youth Organization
- New England Prep
- EJHL, USHL, BCHL, OHL, etc.
- NCAA Div III & I
- ECHL, AHL, NHL




**San Jose Sharks** (Prospect & Pre-Season Camps)  
**USA Women's National Team**

## The Importance of Training

### Primary Goal 1: Performance Enhancement

A **quality** training program will help you improve:

- Linear and transitional speed
- Multi-directional power
- Lower, upper, and total body strength
- Core strength and function
- Conditioning/Endurance



## The Importance of Training

### Primary Goal 2: Injury Resistance

A **quality** training program will minimize your risk to:


- All non-contact or "overuse" injuries
- "Groin" and hip flexor strains
- Contact injuries (Body Armor)
- Shoulder separations/dislocations, knee ligament injuries (ACL & MCL tears, meniscus tears, etc.), and concussions



## Player Outcomes

- Win more races to loose pucks
- Create more time and space
- Give and accept harder passes
- Take harder shots
- Win physical battles
- Perform at a high level from 1<sup>st</sup> through the 3<sup>rd</sup> period
- Stay healthy throughout entire season

**Close "Performance Gap"/Maximize Your Development!**



## Comprehensive Program "Menu"

1. Soft-tissue quality
2. Mobility/Flexibility
3. Speed/Acceleration
4. Lower body, full body, and rotational power
5. Lower and upper body strength
6. Multi-directional core strength/ endurance
7. Conditioning/Endurance

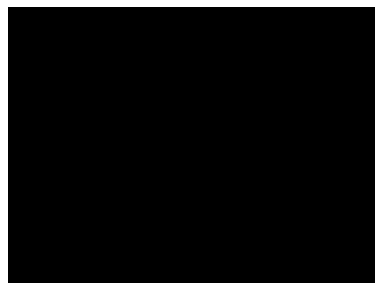


## Soft-Tissue Quality

### Foam Rollers/Med Balls/Lacrosse Balls

- Soft-tissue refers to your muscles, tendons, ligaments, and surrounding tissue
  - Rubber Band Analogy (Is stretching the answer?)
  - Decrease tension and troubleshoot trigger points
  - Improve local circulation and nutrition
  - Areas to focus on: front thigh, outside thigh, back thigh, inside thigh, outside hips, inner shoulder blades, outer shoulder blades
- TIME: ~5-8 minutes/day

## Foam Roll Circuit

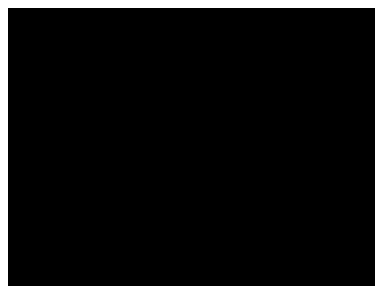


## Dynamic Warm-Up

### Benefits of a quality warm-up

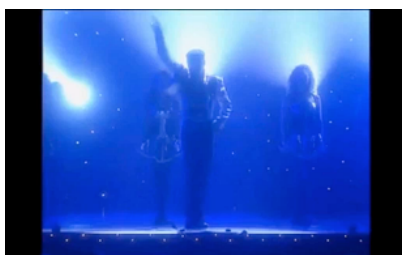
- Improve range of motion, especially in commonly restricted areas
  - Increase heart rate and circulation
  - Increase respiratory rate
  - Increased excitation to working muscles
  - Improved coordination in specific movement patterns
- Prepare the body for high intensity work!**

## Dynamic Warm-Up



## Speed Training

Are we after "Quick Feet"?



## The Myth of Quick Feet

What happens when these two meet?



## REAL Speed Training

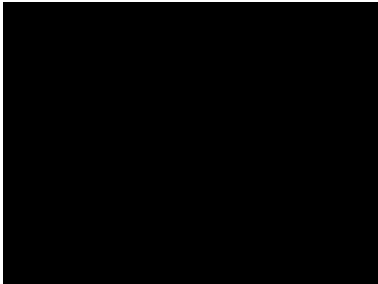
***Relocate quickly by moving center of mass!***

Linear Speed  
-Straight line acceleration and max speed

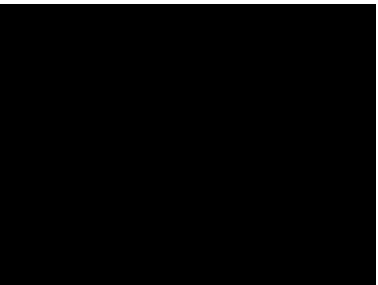
Transitional Speed  
-Changes in speed and/or direction  
-Initial movement of shuffle, back pedal, or sprint, followed by transition of 90° or 180°

***10-15 Yard max effort sprints with complete rest!***

## Front ½ Kneeling Start



## Side ½ Kneeling Start

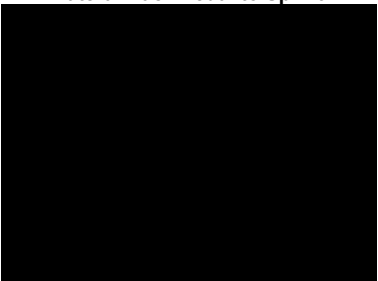


## Hockey Specific



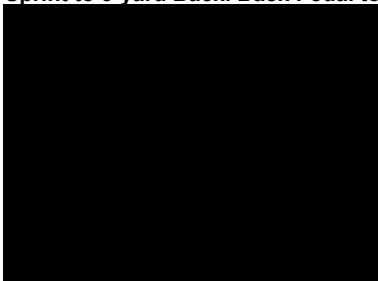
## Transitional Speed

**Lateral Back Pedal to Sprint**



## Transitional Speed

**5-Yard Sprint to 5-yard Back. Back Pedal to Sprint**



## Power Training

### Divisions of Power Training

Lower Body Plyometrics

-Skating speed

Olympic Lifting Variations

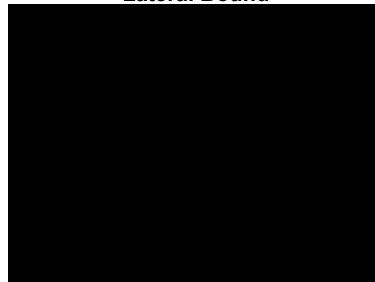
-Skating speed, shot power, 1-on-1 battles

Med Ball Throws

-Skating speed, shot power

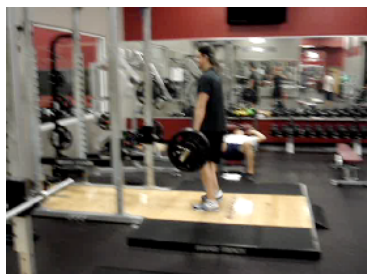
## Lower Body Plyometrics

### Lateral Bound



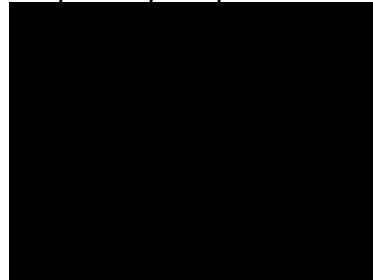
## Olympic Lifting Variations

### Hang Clean



## Med Ball Throws

### Med Ball Shotput w/ Rapid Step Behind & Partner Toss



## Strength Training

### Become brilliant at the basics!

Master the foundational movements

-Lower body push (squatting variations)

-Lower body pull (deadlifting variations)

-Lower body hybrids (lunging variations)

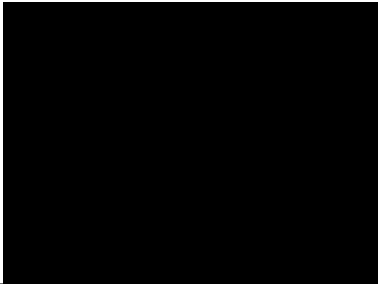
-Upper body push (push-up and overhead press variations)

-Upper body pull (row and chin-up variations)

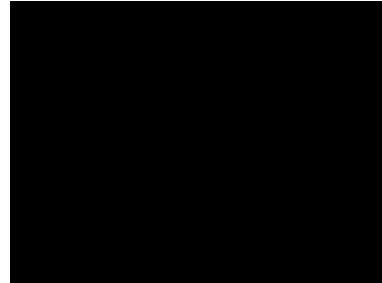
## Strength Training Rules

- 1) Master the movement before you add load
- 2) Technical Failure: When form breaks down, the set is over
- 3) Balance lower and upper body pushing and pulling exercises
  - e.g. 3 sets of 8 DB Chest Press = 3 sets of 8 1-Arm DB Rows

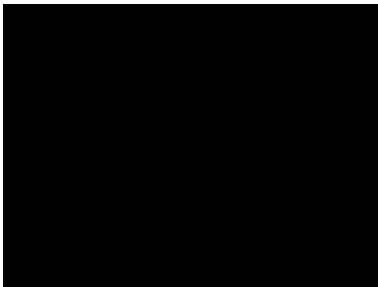
### DB Reverse Lunge



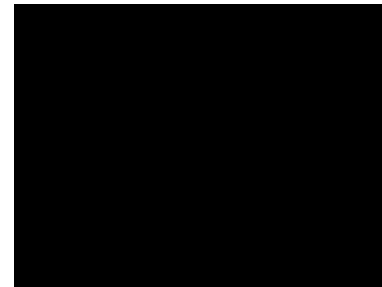
### Reverse Lunge (Front Squat Grip)



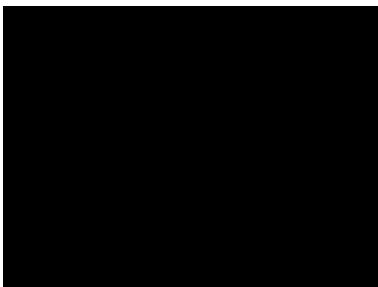
### DB 1-Leg Stiff-Legged Deadlift



### DB Chest Press



### 1-Arm DB Row



### Core Training

**Two Primary Functions**

Create a stable platform for leg and arm movement

- "Can't shoot a cannon from a canoe"

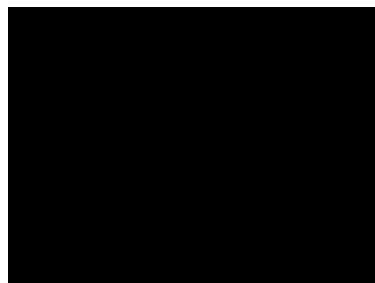
Create stiffness for efficient force transfer between the lower and upper body

- Shooting/skating stride power

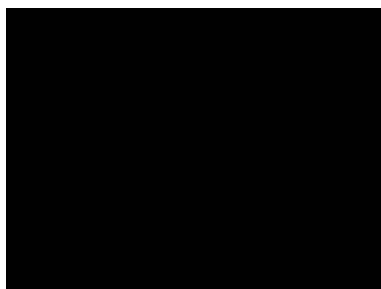
## Front/Side Planks



## Wall March Hold



## Lateral MiniBand Walk



## Conditioning

### Interval-Based Conditioning

#### Preferred Modalities

- Shuttle Runs/Slideboards (NOT bikes!)
- 12-15 x :10/:50
- 10-12 x :20/:40
- 8-10 x :30/:60
- IsoHolds
- 20-60s



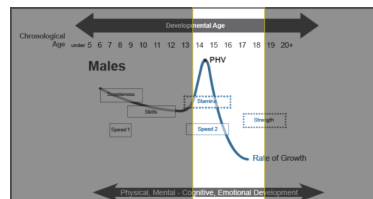
## Split Squat IsoHold to Slideboard (Advanced)



## Stage of Development

### Long-Term Athletic Development Model

Model used to describe optimal stages of development to help athletes fulfill their genetic potential



## Just Speed & Conditioning?

**Most physical qualities compliment each other**

Strength-Speed Example:

Speed = Putting Force into Ice

Force = Strength

Improve Strength = Improve Speed

Strength Training = Speed Training

## What About Goalies?

**Ask yourself these questions:**

Do I want my hips and shoulders to be more mobile?

Would being faster, stronger, and more explosive be beneficial?

Would these qualities also be beneficial for forwards and defensemen?

**How do I develop these qualities?**

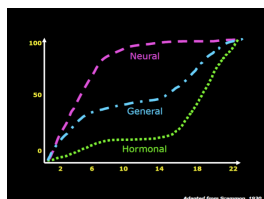
## How You Got Here

**Everyone is here for different reasons**

Did you grow before everyone else?

Did you develop neurologically (think skill/skating) before everyone else?

Did you outwork everyone else?



## “Control the Controllables”

-Dr. Hacker (Sport Psychologist, US WNT)

-There are a lot of components of your development, especially in terms of growth that you have no control over.

**-Focus on what you can control!**

-Training, nutrition, hydration, practice, preparation

-You are NOT the same as your friends!

## Thank You

Tom Lampl & Camp Staff

Joe Doyle & All of USA Hockey's ADM Team

Staff at Endeavor

Hockey Coaches

Hockey Parents

All of you!

## Recommended Equipment

**Check out this article for information on where to pick up MiniBands, Foam Rollers, etc.**

<http://www.kevinneeld.com/2011/three-things-every-hockey-player-should-own>

## Questions?

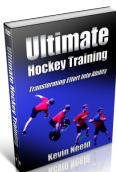
### More Information:

KN@KevinNeeld.com

www.KevinNeeld.com

www.HockeySC.com

www.UltimateHockeyTraining.com



## 3 Keys to Successful Nutrition

### 1) Eat real food

Real food can be hunted or grown

Ask yourself: "Was this accessible to a caveman?"

Most of your diet should come from lean meats, eggs, fruits, vegetables, nuts, and beans

Avoid the aisles at the grocery store



## 3 Keys to Successful Nutrition

### 2) Eat often/eat enough

Can't gain weight?

Cereal: ~160 calories/serving

Maintenance Calories: 16-18 x BW (lbs)

Weight Gain Calories: 20-22 x BW (lbs)

140 lbs = 2,800-3,080

150 lbs = 3,000-3,300

4 meals = ~750-850 calories/meal



## 3 Keys to Successful Nutrition

### 3) Stay hydrated

Most of you are in a mild state of dehydration at all times

Impaired physical & mental performance

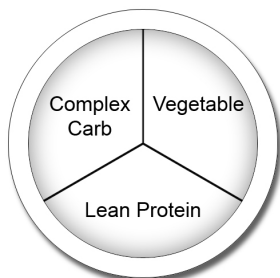
Drink WATER, 12-16 cups/day

Buy a water bottle and drink throughout the day

Mix in pure lemon or lime juice for taste



## Pre- and Post-Game Meal



## Grocery List: Proteins

- 1) Chicken or turkey breast, boneless and skinless
- 2) Lean ground beef, buffalo, chicken or turkey
- 3) Lean red meat (top round, sirloin, London broil)
- 4) Omega-3 eggs
- 5) Wild Alaskan salmon
- 6) Yogurt, plain



## Grocery List: Vegetables & Fruits

- |                            |                              |
|----------------------------|------------------------------|
| 1) Asparagus               | 8) Onions                    |
| 2) Baby carrots            | 9) Tomatoes                  |
| 3) Baby spinach            | 10) Apples                   |
| 4) Bell peppers            | 11) Bananas                  |
| 5) Broccoli, cauliflower   | 12) Berries, fresh or frozen |
| 6) Cucumbers               | 13) Oranges                  |
| 7) Mixed frozen vegetables | 14) Pineapple                |

## Grocery List: Grains & Carbs

- 1) Beans (black, chick peas, kidney, lentils)
- 2) Steel-cut/Irish oats
- 3) Quinoa
- 4) Sprouted grain breads, English muffins, wraps or cereal (Ezekial brand)
- 5) Sweet potatoes

## Grocery List: Healthy Fats

- 1) Extra virgin olive oil
- 2) Guacamole
- 3) Mixed nuts (almonds, walnuts, pecans, cashews, pistachios, brazil)
- 4) Natural peanut/almond/cashew butter
- 5) Pesto from extra virgin olive oil
- 6) Seeds (chia, hemp, milled flax, pumpkin, sunflower)

## The Secret to Making It Work

### Make eating the right foods convenient!

Pre-cook meals for the week on Sunday night and put them in tupperware

Pre-bag individual snack bags with nuts, seeds, and cut up fruits/vegetables

Make breakfast omelette or smoothie the night before, so you can sleep in

## Reese's Smoothie (2 servings)

- 16 oz organic whole milk
- 2 scoops chocolate protein
- 2 bananas
- 2 tbsp milled flax seeds
- 2 tbsp cacao nibs
- 3 tbsp natural peanut butter
- 1 cup frozen mixed berries



**Nutrition Information (Total):** >1200 calories, >60 g protein, >36 g fat, >90 g carbs, >20 g fiber