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## DYNAMIC FLEXIBILITY FOR LACROSSE ATHLETES

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DYNAMIC FLEXIBILITY FOR LACROSSE ATHLETES




### Overview:

- *Methods of Stretching*
- *Benefits*
- *Dynamic Flexibility*
  - *Definition*
  - *Purpose*
  - *Benefits*
  - *Research*
  - *Exercises*

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### Methods of Stretching:

- **Static**
  - Stretches Muscle to Elongated Position While at Rest
- **PNF**
  - Proprioceptive Neuromuscular Facilitation
  - Combination of Passive Stretching and Isometric Contractions
- **Dynamic**
  - Propels Muscle into Extended ROM
  - Considered Ballistic in Nature

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### Benefits of Stretching:

- **Decreased Risk of Injury**
- **Reduced Muscle Soreness**
- **Improved Posture**
- **Reduced Low Back Pain**
- **Increased Blood and Nutrients to Tissue**
- **Improved Muscle Coordination**

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### Dynamic Flexibility:

The Ability to be able to perform kinetic movements of the muscles to bring a limb/limbs through its full range of motion (ROM).

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### Purpose:

- Elevate Core Body Temperature
- Enhance Motor Unit Excitability
- **STRETCH AND WARM UP AT THE SAME TIME!**

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### Benefits:

- Increase Temperature of Muscles
- Increase Blood Flow and Oxygen to Muscles
- Increase Speed of Nerve Impulses
- Increase ROM at Joints
- Improved Performance
- Prepares Body to Move in All Directions

**INCREASE SPEED + REDUCE RISK OF INJURY!**


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### Research:

- Athletes Most Flexible Between 2:30 and 4:00pm
- Recent Data (*Low Intensity Aerobic Exercise & Static Stretch vs. Dynamic Warm-up*)
  - VJ  $\uparrow$  by 6.5%
  - Long Jump  $\uparrow$  by 1.9%
  - Shuttle Run  $\uparrow$  by 2.6%
- More Findings with Dynamic Warm-up
  - Jump  $\uparrow$  1.8cm - 2.8cm
  - Sprint  $\downarrow$  .2 - .3 seconds


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### Research:

- Static Stretching Decreases Eccentric Strength for up to an Hour after Stretching
  - Decreases Muscle Strength by 9%
  - Decreases Eccentric Strength by 7%
- Static Stretching Reduces Peak Force by 5%
- University of Nevada – **Up to 30% Strength Loss after Static Stretch!**


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### Exercises:

- Walk on Balls of Feet
- Walk on Heels
- Ankle Flips
- High Knees
- Butt Kicks
- Frankenstein Walks
- Side Shuffle /Fast Shuffle
- Carioca
- Carioca with High Knee
- Backpedal
- Sprint
- Knee to Chest (*Advanced*)
- Deep Carioca (*Advanced*)
- Toe Touch Walk (*Advanced*)
- Elbow Lunge (*Advanced*)
- Low Shuffle (*Advanced*)
- Scoop Lunge (*Advanced*)

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### Walk on Balls of Feet:




- Walk Slow
- Stay as High as Possible

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### Walk on Heels:



- Walk Slow
- Pull Toe to Shin

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**Ankle Flips:**


- Walk Slow
- Pull Toe to Shin and SLAM to Ground
- Stay on Toes
- Add Skip @ Mid



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**High Knees:**

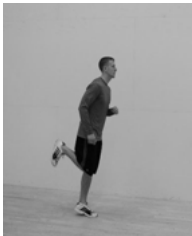
- Walk Slow
- Pull Toe to Shin When Knee in Air
- Thigh Goes to Parallel
- Use Arms!
- Add Skip @ Mid



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**Butt Kicks:**


- Walk Slow
- Pull Toe to Shin in Air
- Stay on Toes
- Use Arms!
- Move Legs Faster @ Mid



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**Frankenstein Walk:**

- Walk Slow
- Pull Toe to Shin in Air
- Keep Leg Straight in Air
- Kick Only As High As You Can!
- Use Arms!
- Add Skip @ Mid



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**Side Shuffle / Fast Shuffle:**

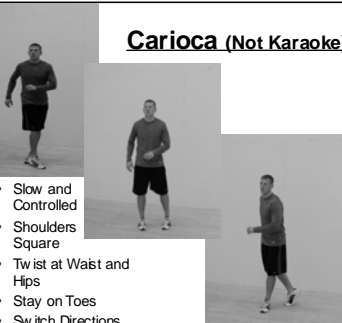
- Shuffle Slow
- Reach With Outside Leg
- Push Off Inside Leg
- Stay on Toes
- Switch Directions @ Mid
- **Fast Shuffle – Same Thing, Only Faster!**




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**Carioca (Not Karaoke):**

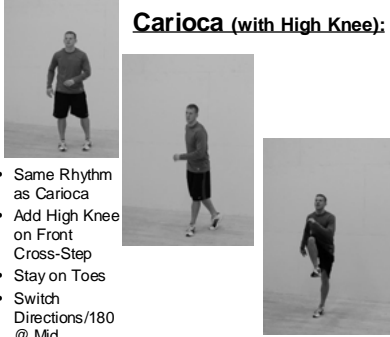
- Slow and Controlled
- Shoulders Square
- Twist at Waist and Hips
- Stay on Toes
- Switch Directions @ Mid



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### Carioca (with High Knee):

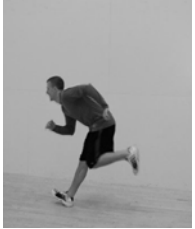


- Same Rhythm as Carioca
- Add High Knee on Front Cross-Step
- Stay on Toes
- Switch Directions/180 @ Mid

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### Backpedal:



- Slow and Controlled
- Shoulders Square and Over Toes
- Use Arms!
- Stay on Toes
- Switch to Jog @ Mid
- Repeat 3X
  - Each Time Moving Faster

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### Sprint:




- Proper Form & Technique
- Head Up/ Shoulders Square
- Stay on Toes
- Start at 50% Speed
  - Repeat 3X
  - Each Time Moving Faster

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### Knees to Chest (Advanced):




- Slow and Controlled
- Pull and Hold Knee Into Chest
- Stay on Toes
- Add Skip @ Mid

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### Deep Carioca (Advanced):




- Slow and Controlled
- Drop and Touch Ground on Each Crossover
- Twist at Waist and Hips
- Stay on Toes
- Switch Directions @ Mid

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### Toe Touch Walk (Advanced):



- Slow and Controlled
- Keep Leg Straight
- With Heel on Ground, Pull Toe to Shin
- Bend at Waist and Touch Opposite Hand to Toe

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**Elbow Lunge (Advanced):**



- Lunge Forward
- Twist Waist to Touch Opposite Elbow to Outside of Lead Leg
- Alternate with Each Stride

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**Low Shuffle (Advanced):**



- Shuffle Out 3 Strides
- Pause, Lean Toward Lead Leg, Then Toward Back Leg
- Repeat
- Switch Directions @ Mid

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**Scoop Lunge (Advanced):**



- Lunge Forward
- While Lunging, Bend at Waist and Scoop with Both Arms
- Raise Up and Forward on Lead Leg
- Repeat on Opposite Leg

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