

**Efficient Warm Up and
Environmental Health
Factors For Officials**

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Why Should We Warm Up?

- **Injury Prevention**
- **Increases**
 - **Heart Rate**
 - **Blood Flow**
 - **Joint Mobility**
- **Mental Preparation**



Dynamic Stretching

- **Moving** through a range of motion (ROM) while you stretch
 - **Compound movements** – involving more than one joint
 - Mimic movements associated with the activity
- Assist with increasing:
 - **Heart Rate**
 - **Blood Flow**
 - **Joint lubrication (synovial fluid)**
- Done **before activity**

Bodyweight Dynamic Warm-Up

Complete 1 round of this bodyweight circuit before your workout to prepare your body for strength training.

Quadruped Reaches x 6-10 reps each side



Quadruped Thoracic Rotations x 6-10 reps each side



Pause Hip Bridge (2 sec) x 6-10 reps



Side-Lying Hip Abduction x 6-10 reps each side



Hollow to Superman x 6-10 reps each



Prone Fly x 20 reps



BW Push-up x 6-10 reps



Mountain Climbers x 6-10 reps each



BW Lateral Lunge x 6-10 reps each side



BW Reverse Crossover Lunge x 6-10 reps each side



Jumping Jacks x 20 reps



Burpee x 6-10 reps



More like this available at voltathletics.com

Squat Mobility Primer

Complete 1 round of this circuit before your workout to prime your hips, knees, and ankles for squatting.

Lunge Position Mobilization

- 30 sec each side
- Gently push knee out to side
- Use exhale to increase stretch



BW Lunge to Twist

- 8-8 reps each leg
- Step into lunge, then twist both ways
- Pause briefly in center position



BW Prisoner Squat

- 10 reps
- Keep torso upright
- Sink hips into full squat



Band Lateral Walk

- 10 steps one direction, then switch
- Slight bend in hips and knees
- Do not allow slack in band



Band Good-morning

- 12 reps
- Push hips back, keep back flat
- Squeeze glutes to stand up



Band Squat

- 10 reps
- Push knees out against band
- Drive through heels to stand up



DB Lateral Lunge (5-sec hold)

- 8-8 reps each leg, alternating
- Big lateral step, bend one knee deeply
- Hold for 5 full sec at bottom



DB Goblet Front Squat (5-sec hold)

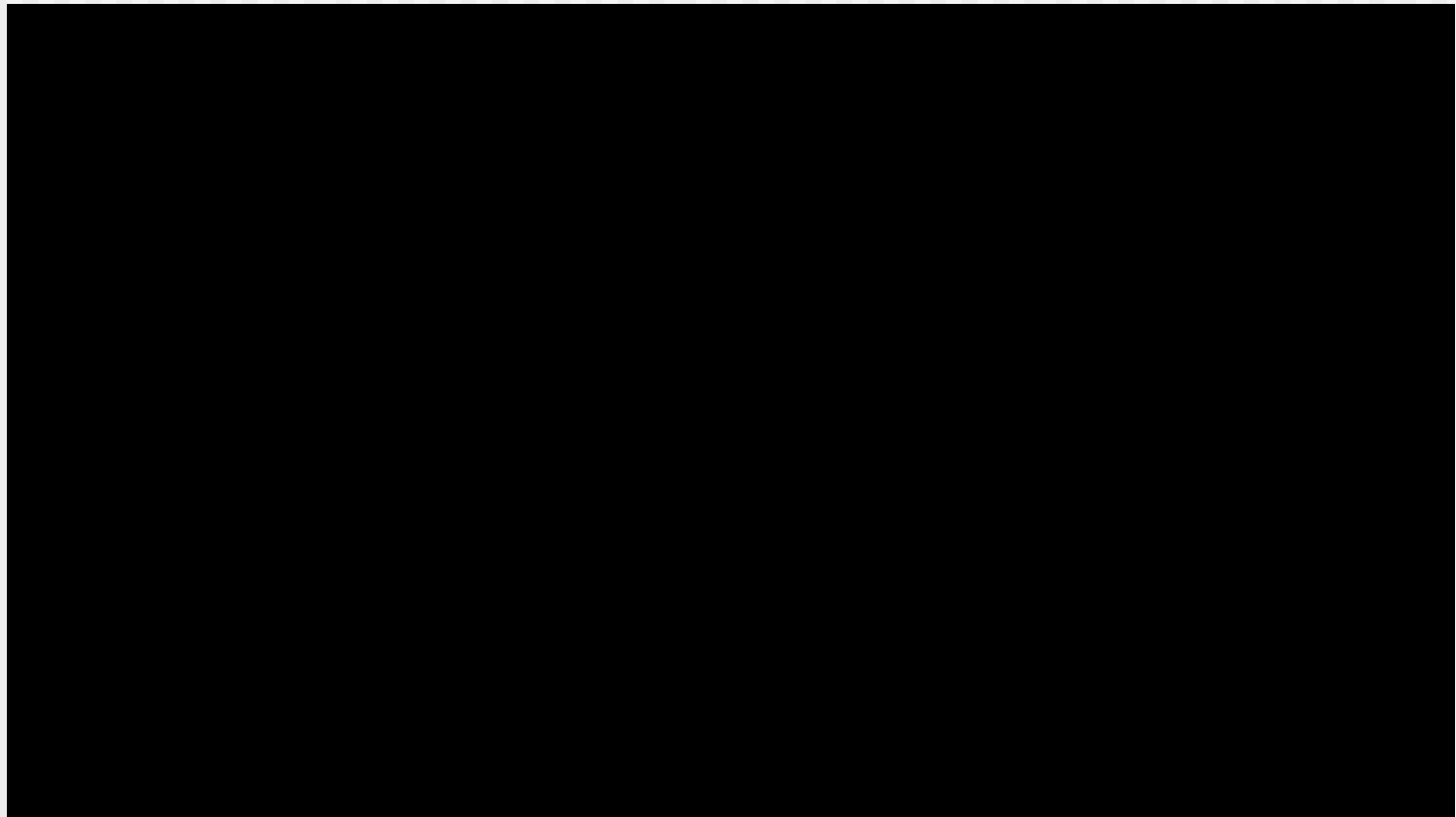
- 8-8 reps
- Hold DB to chest, sink into full squat
- Hold for 5 full sec at bottom



More like this available at voltathletics.com

Dynamic Warm Up

Lacrosse specific



(US Lacrosse, 2012)

Static Stretching

- **Holding** a position with an **elongated muscle** for a period of about 5-30 seconds
 - Usually involving **one joint** at a time
- Assists with:
 - **Increasing Flexibility (muscle/joint)**
 - **Cooling down from an activity**
 - **Flushing muscles of nutrients**
- Best performed after activity

Static Stretching



Gastrocnemius



Soleus



Psoas



Hamstrings



Adductors



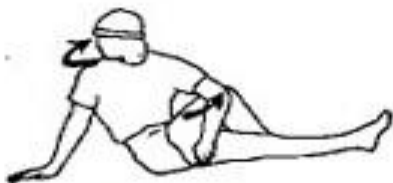
Adductors



Adductors



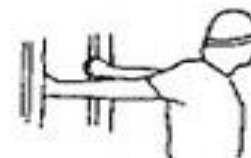
Quadriceps



Gluteals



Triceps



Pectorals

Other options to assist you with warming up

■ Heat Treatment

- Hot pack, heated blanket, topical cream, hot bath/shower, heated car seat
- Use before activity-increase blood flow, loosen muscles up. **Vasodilator**

■ Cold Treatment

- Ice, cold bath, ice bucket, topical cream
- Use after activity/injury – decreases blood flow, reduces inflammation. **Vasoconstrictor**

Environmental Health Factors

East Meadow, NY Monthly Weather
12:08 pm EST

< Mar 2019 ▾ >

SUN	MON	TUE	WED	THU	FRI	SAT
24 Avg 44° 29°	25 Avg 45° 29°	26 Avg 45° 29°	27 Avg 45° 30°	28 Avg 45° 30°	1 Avg 46° 30°	2 Avg 46° 30°
3 Avg 46° 30°	4 Avg 46° 31°	5 Avg 47° 31°	6 Avg 47° 31°	7 Avg 47° 31°	8 Avg 47° 32°	9 Avg 48° 32°
10 Avg 48° 32°	11 Avg 48° 32°	12 Avg 49° 33°	13 Avg 49° 33°	14 Avg 49° 33°	15 Avg 49° 33°	16 Avg 50° 34°
17 Avg 50° 34°	18 Avg 50° 34°	19 Avg 51° 34°	20 Avg 51° 35°	21 Avg 51° 35°	22 Avg 52° 35°	23 Avg 52° 36°
24 Avg 52° 36°	25 Avg 53° 36°	26 Avg 53° 36°	27 Avg 53° 37°	28 Avg 54° 37°	29 Avg 54° 37°	30 Avg 54° 38°

Cold-Related Injuries

- **Hypothermia, Frostbite, Dehydration**
- **Signs and Symptoms:**
 - Numbness, tingling, burning sensation
 - Loss of sensation
 - Shivering
 - Pale skin leading to red, blue, or purple skin coloring
 - Skin blistering

Cold-Related Injuries

■ Reduce the risk of injury:

■ **Stay Dry**

- wear wicking fabric close to the body, water resistant/breathable outer layers

■ Stay **Hydrated**

- Avoid alcohol, caffeine and nicotine





WIND CHILL PROCEDURES

Administration of Wind Chill Procedures:

- Feels Like Temperature (Wind Chill) will be checked 1 hour before the contest/practice by a certified athletic trainer, athletic director, or school designee when the air temperature is 39 degrees (Fahrenheit) or lower.
- Download WeatherBug app to your phone or log into www.weatherbug.com.
- Enter zip code or city and state in the location section of the app or on-line.
- If the Feels Like temperature (wind chill) is 10 degrees or below, the athletic trainer, athletic director, or school designee must re-check the Feels Like (wind chill) at halftime or midway point of the contest. If the Feels Like (wind chill) temperature is -11 degrees (Fahrenheit) or lower, the contest will be suspended.

Please refer to the following chart to take the appropriate actions:

	Feels Like Temp (wind chill) above 40 degrees	Full activity. No restrictions
R E C O M M E N D E D	Wind Chill Caution: Feels Like Temp (wind chill) 39 degrees to 30 degrees	Stay adequately hydrated. Notify coaches of the threat of cold related illnesses. Have students and coaches dress in layers of clothing.
	Wind Chill Watch: Feels Like Temp (wind chill) 19 degrees to 10 degrees	Stay adequately hydrated. Notify coaches of the threat of cold related illnesses. Have students and coaches dress in layers of clothing. Cover the head and neck to prevent heat loss.
	Wind Chill Warning: Feels Like Temp (wind chill) 9 degrees to -10 degrees	Stay adequately hydrated. Notify coaches of the threat of cold related illnesses. Have students and coaches dress in layers of clothing. Cover the head and neck to prevent heat loss. Consider postponing practice to a time when the Feels Like temp is much higher. Consider reducing the amount of time for an outdoor practice session.
REQUIRED	Wind Chill Alert: Feels Like Temp (wind chill) -11 degrees or lower	No outside activity, practice or contest, should be held.

Special Note: Alpine Skiing will be exempt from this policy and will follow the regulations of the host ski center where the practice or event is being held.

Heat-Related Injuries

- **Heat Cramps, Heat Stroke, Heat Exhaustion**
- **Signs and Symptoms:**
 - Painful **cramps**
 - Flushed, moist skin
 - **Nausea, vomiting, dizzy, diarrhea, headache, fatigue, weakness, confusion, anxiety**
 - Fast/slow, weak pulse (HR)
 - Cool, dry skin (heat stroke)
 - Blistering on the skin (**sunburn**)
 - Temperature, 98.6 normal, **heat stroke > 102**

Heat-Related Injuries

- Reduce the risk of injury:
 - **Acclimatization** (10-14 days)
 - Wear **light clothing**, breathable, stay-dry material
 - **Hydrate** (water breaks)
 - **Sunscreen**
 - Shelter
- If experiencing heat-related s/s:
 - **Stop activity**, seek shade/shelter, small sips of water, remove restrictive clothing
 - Ice – **neck, arm pits, groin**, cold water immersion if possible



HEAT INDEX PROCEDURES

Administration of Heat Index Procedures:

- Feels Like Temperature (Heat index) or THI using a Wet Bulb indicator on the field will be checked 1 hour before the contest/practice by a certified athletic trainer, athletic director, or school designee when the air temperature is 80 degrees (Fahrenheit) or higher.
- Download WeatherBug app to your phone or log into www.weatherbug.com. Schools may also use a Wet Bulb indicator on the field that will be used.
- Enter zip code or city and state in the location section of the app or on-line or determine the THI by using a Wet Bulb Indicator.
- If the Feels Like temperature (heat index) or the Wet Bulb Indicator is 90 degrees or above, the athletic trainer, athletic director, or school designee must re-check the Feels Like temperature (heat index) or Wet Bulb indicator at halftime or midway point of the contest. If the Feels Like temperature (heat index) or Wet Bulb Indicator is 95 degrees (Fahrenheit) or more, the contest will be suspended.

Please refer to the following chart to take the appropriate actions:

	Feels Like Temp (Heat Index) or Wet Bulb indicator under 79 degrees	Full activity. No restrictions
R E C O M M E N D E D	Heat Index Caution: Feels Like Temp (Heat Index) or Wet Bulb indicator 80 degrees to 85 degrees	Provide ample water and multiple water breaks. Monitor athletes for heat illness. Consider reducing the amount of time for the practice session.
	Heat Index Watch: Feels Like Temp (Heat Index) or Wet Bulb indicator 86 degrees to 90 degrees	Provide ample water and multiple water breaks. Monitor athletes for heat illness. Consider postponing practice to a time when Feels Like temp is lower. Consider reducing the amount of time for the practice session. 1 hour of recovery time for every hour of practice (ex. 2hr practice = 2hr recovery time).
	Heat Index Warning: Feels Like Temp (Heat Index) or Wet Bulb Indicator 91 degrees to 95 degrees	Provide ample water and water breaks every 15 minutes. Monitor athletes for heat illness. Consider postponing practice to a time when Feels Like temp is much lower. Consider reducing the amount of time for the practice session. 1 hour of recovery time for every hour of practice (ex. 2hr practice = 2hr recovery time). Light weight and loose fitting clothes should be worn. For Practices only Football Helmets should be worn. No other protective equipment should be worn.
REQUIRED	Heat Index Alert: Feels Like Temp (Heat Index) or Wet Bulb indicator 96 degrees or greater	No outside activity, practice or contest, should be held. Inside activity should only be held if air conditioned.

Thank you!



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References

Strength and Conditioning Coaches. (n.d.). Retrieved from <https://www.nasca.com/professional-development/professional-areas/strength-and-conditioning-coaches/>

[National Strength and Conditioning Association Squat Mobility primer](#)

[National Strength and Conditioning Association Body weight dynamic warmup](#)

[US Lacrosse Dynamic Warm up video \(2012\)](#)

Thompson, B. (2017, December 26). National Weather Service issues advice on bundling up for 'bitter cold' this week - The Boston Globe. Retrieved from <https://www.bostonglobe.com/metro/2017/12/26/national-weather-service-issues-advice-bundling-for-bitter-cold-this-week/O6bFI8mJneqLb5kx7qg0mM/story.html>

New York State Public High School Athletic Association (NYSPHSAA)