

# Warm-Up Strategies

ARTICLE AND PHOTOS BY CARL M. POE, M.S., CSCS

*Preparation for optimal competition performance*

Every time I see a skater take to the ice without a warm-up, I am amazed. Warming up on the ice is simply not good enough. A proper off-ice warm-up prepares a skater for on-ice success.

What is a proper warm-up? How do skaters benefit from warming up?

Warm-up should consist of:

1. General Warm-Up – Approximately five minutes of physical activity (jumping rope, slideboard, jogging in place), followed by at least 8–12 minutes of total-body flexibility stretches of each joint area. (neck, shoulder, elbow, wrist, hip/torso area, low back, knee and ankle).
2. Specific Warm-Up – Movements that closely simulate on-ice patterns. Singles skaters should do: Dryland air turns, rotational jumps, low intensity plyometric jumps/ movement, choreography program walk through. Pairs skaters should do: Dryland air turns, rotational jumps, pair lifts, low intensity plyometric jumps/movements, choreography program walk through. Ice dancers should do: Low intensity plyometric movements, dance lifts, choreography program walk through.

## Off-Ice Warm-Up

Pre-practice and pre-competition off-ice warm-ups should:

- Increase the heart rate and body temperature, causing a mild sweat but not fatigue.
- Include some joint/muscle stretching such as flexibility stretching of the total body. Stretches should be held for no more than 10 seconds.
- Simulate on-ice performance.
- End at least 15–20 minutes prior to taking to the ice.
- Be done on a soft landing surface or floor (i.e., wooden floor, ballet floor or matted floor) with adequate space.

- Be done while wearing appropriate footwear (i.e., supportive shoes with good heel/ankle support).
- Be performed in a comfortable environment – warm temperatures are preferable. Many skaters like to warm up by the ice, which is fine as long as they are dressed warmly, the floor is cushioned and there is room.

Once a skater has completed the general and specific warm-up, they must keep warm. Instead of sitting down, do some toe jumps or ankle bounces, squat jumps with skates on, or stationary checkouts, camel stretch position to keep warm and limber.

Every skater's off-ice warm-up will vary. The more difficult the on-ice program, the longer the warm-up should last. Skaters should spend more time warming-up prior to a free skate than they would for short programs.

The general and specific warm-up can result in the following physiologic changes for the skater:

- A. Increased heart rate and blood flow.
- B. Increased core muscle temperature.
- C. Increased speed of muscular contraction and relaxation.
- D. Enhanced exchange of oxygen to the working muscles.
- E. Stimulated activity in both the brain and the lungs, thus allowing more efficient use of oxygen and improved breathing.

## General and Specific Warm-Up

(See related photos on following page. Photos were taken during an actual U.S. Figure Skating non-qualifying skating competition.)

### General Warm-Up

**Jump Rope:** (a) Straight body alignment and positioning on the ball of the foot.

**Cariocas or crossovers:** (b) Again, stay

on balls of the feet. This is a total body warm-up drill with emphasis on the hips, legs, torso and arms.

### General Stretches/Movements

**Neck Circles:** (c) Slow, controlled rotation of the head to stretch the neck. Perform clockwise and counterclockwise.

**Single Arm Pull:** (d) With the free arm, pull the fully extended opposite arm across the midline of the chest. Excellent shoulder and chest stretch.

**Overhead Triceps Pull:** (e) Reach behind and pull the arm, at the elbow, downward slowly. Excellent for arms, shoulders and upper back muscles.

**Trunk Rotation:** (f) A controlled circling of the torso, hips and lower back.

**Crossed Leg Hamstring Stretch:** (g) Stand with legs crossed, slowly reach towards feet with extended arms. Excellent stretch for the hamstrings and lower back.

**Single Leg Quad Pull:** (h) Standing, keep knees close together and pull heel to buttocks. Stretches hip and quadriceps or upper leg.

**Calf Push:** (i) Push against the wall; with shoulders square, good back alignment and back foot flat on the floor in a straight position. Stretches the lower leg or gastro-soleus muscle groups.

**Achilles Toe Stretch:** (j) With the toe high on the wall, stretch the lower leg/ankle area by leaning forward. Especially good for the Achilles tendon.

**Spiral Stretch:** This skating-specific stretch movement simulates a spiral balance position on the floor. This is another total-body stretch involving the legs, hip, lower back, arms, shoulders and upper back.

**Ankle Rocker Stretch/Movement:** (k) This photo shows the ankle rocker device used for balance, flexibility and



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strengthening of the ankle/foot or lower leg area. Position the ball of the foot on the ankle rocker, stand tall, good posture, head up. Press the foot on the rocker so that it rocks upward, lifting the heel off the floor. This movement should be a slow, controlled movement at first, then speed can be added. Hold onto a wall for balance if needed. The free-leg should remain off the floor for balance and to

make the drill more technical. For a more challenging exercise, perform camel/spiral positions and checkouts on the ankle rocker.

**Ankle Bounces:** (i) Dynamic low intensity plyometric exercise for the ankle/lower leg and arms. Extend the ankle and maintain vertical (extended) position in the air. Emphasis should be on quick take-off and landing on the balls of the feet, and on maximizing the height of the jump, using a quick double-arm swing.

**Simulated Axel/double Axel takeoffs:** (m) Simulate an Axel take-off on the floor – try to extend off the take-off leg; use an explosive movement of the legs and arms. This drill is for maximal vertical height and not rotation.

**Jump, Air Position Landing:** Perform a maximal vertical jump while simulating an in-air position with single leg landing. Make sure there is a closed air-position prior to the single leg-landing checkout on the floor.

**Dryland Jump Rotations:** The skater performs rotational jumps that they are getting ready to compete or practice. Care must be taken that the athlete has proper footwear, there is adequate floor space for landing jumps, especially double Axels, and that the floor is relatively soft for the jumping landing stress. (Pair skaters would utilize this time for specific off-ice warm-up of their pairs lifts.)

Both singles and pairs skaters should end their off-ice specific warm-up with a choreography walk-through.

This warm-up routine should vary based on the skater's level, the duration of the competitive program and the technicality of the skater's program. So not all skaters would perform the above drill sequence. Variables such as competitive schedule, injury status and overall energy level or fatigue status should also be taken into account.

I would like to thank Kayla Howey and Lauren Nieman for their participation in the photos. It just so happened that at this particular competition, both girls placed first and second respectively, out of 12 skaters, in the juvenile ladies final round event. ■

*Carl M. Poe, M.S., CSCS, is an off-ice strength and conditioning coach for figure skaters and is a member of the U.S. Figure Skating and PSA Sports Medicine & Science Committees. In the last 12 years, he has participated in numerous U.S. Junior Championships, U.S. Championships and Regional Training Camps. He is also the author of a book titled: Conditioning for Figure Skating: Off-Ice Techniques for On-Ice Performance, published by McGraw-Hill (sold in bookstores and amazon.com). Poe conducts off-ice training seminars and program development throughout the United States. He can be reached at 847.812.8458 or e-mailed: OffIceStr@aol.com.*

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