

**Warm-Up Exercises\***  
**Rehabilitation Institute of Chicago**  
**Medical Program for Performing Artists**

**\*\*Always be cautious when trying out any exercises and,  
if any discomfort is experienced, stop and consult your physician.\*\***

**Warming Up:**

- The optimum speed of chemical reaction and metabolism is 102-103 degrees Fahrenheit.
- Evidence suggests that speed, strength, and efficiency of contractions are enhanced by a rise in temperature of muscle toward that range.
- The only efficient way of raising muscle temperature is by work of the muscle itself.
- Ten to fifteen minutes of active exercise for all upper-extremity joints are recommended.

**Warm-Up Exercises:**

**Avoid jerking motions. Perform each exercise smoothly and with moderate speed.**

1. Shoulder flexion. Raise both arms overhead then relax at sides. (twenty repetitions)
2. Shoulder abduction. With both arms at your sides, raise your arms outward and upward overhead. Then relax to your sides. (twenty repetitions)
3. Shoulder shrugs. (twenty repetitions)
4. Pinch shoulder blades together. (twenty repetitions)
5. Elbow flexion-extension. Bend and straighten elbows fully. (twenty repetitions)
6. Shoulder circles. With arms at sides, rotate shoulders in circles. (seven repetitions clockwise; seven repetitions counterclockwise)
7. With elbows flexed and hands extended forward, palms up/palms down. (twenty repetitions)
8. With elbows flexed and hands extended forward, wrists up/wrists down. (twenty repetitions)
9. Bend wrist to little finger side then thumb side. (ten repetitions)
10. Spread fingers apart/squeeze fingers together. (ten repetitions)
11. Keeping the hand straight, bend fingers at the middle joint. The fingers form a hook. (ten repetitions)

**Cooling Down:**

- After vigorous activity muscles may tend to cramp or experience fatigue/discomfort.
- Stretching muscles their entire length, holding, and then relaxing them helps to alleviate these conditions.
- Ten to fifteen minutes are recommended. Hold each repetition for a long five count.

**Cool-Down Exercises:**

1. Raise arms overhead. (five repetitions)
2. Touch opposite shoulder and hold. (five repetitions each arm)
3. Bend neck to the right then to the left. Hold each for a count of five. (five repetitions)
4. Hands behind head, elbows out to the side, push back on flexed elbows. (five repetitions)
5. Clasp hands behind hips and roll shoulders outward. (five repetitions)
6. Make a fist and bend wrist downward. (five repetitions)
7. Keep fingers extended and bend wrist backwards at the wrist. (five repetitions)
8. Spread fingers, then relax. (five repetitions)

Above is a list of warm-up and cool-down exercises distributed to patients at the Rehabilitation Institute of Chicago's Medical Program for Performing Artists. It was developed and written by occupational therapist, Carol Brooks, OTR and pioneering music-medicine physician, Alice Brandfonbrener, MD.

\*Berenson et al, "Healthy Practicing", A Symposium for Pianists and Teachers: Strategies to Develop the Mind and Body for Optimal Performance, pgs. 219-220; Heritage Music Press, Dayton, OH.