

Name _____ Date _____ Class Period _____

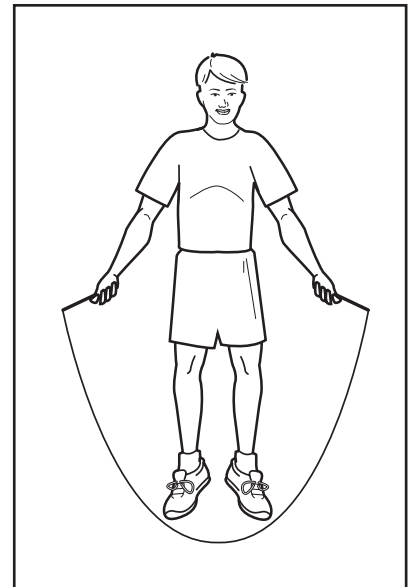
Jumping Rope: Increasing Speed

Jumping rope is probably one of the best exercises for developing speed and power. You can develop anaerobic capacity, speed, quickness, agility, and power but are less likely to use poor mechanics or have a poor posture. Jumping rope creates less pounding and stress on the body since movements are small and jumps are short and quick. In addition, jumping rope is easy to measure. You can easily count revolutions of the rope and measure improvement.

The basic bounce step is recommended. For the basic bounce step, jump only high enough for the rope to clear and land lightly on the ball of your feet. One rotation of the rope counts as one jump.

The following are jump rope mechanics:

- Use a lightweight speed rope that is the correct length (if you stood on the center of the rope, the handles should reach your underarms on each side).
- Hold the elbows close to the sides.
- Make small circles with the wrists to turn the rope.
- Head is erect. Focus on an object straight ahead to help balance.
- Torso is relaxed.
- Jump only about one inch off the floor, just enough for the rope to clear.
- Be light on the balls of the feet.



If you are a beginner jumper, your goal to start is to jump at a rope speed of 140 revolutions per minute. One of the best ways to try to accomplish that is to play exercise music of 140 beats per minute (BPM) and try to jump to the beat. Once you can jump at that pace for five minutes, you would work until you could jump ten minutes. Once you can jump for ten minutes continuously, you would work up to 180–200 revolutions of the rope per minute. As you become proficient, you would add other jumps such as the alternate-foot step, skier's jump, bell jump, and more.

Jumping rope in intervals is also good for conditioning. That means you jump for a set time (number of seconds or minutes) and then you have rest periods between sets and repeat going for more speed. For example, you might jump rope for two minutes and then rest for two to three minutes. The reason for the longer rest (than with other types of exercise sets) is to allow your body to recover to almost your preset heart rate.

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Jump Rope Activity

Set your watch so it will beep if you are outside of 60%–85%. After a warm-up and stretch, begin jumping rope at a fast pace. Your goal is to jump at a rope speed of 140 revolutions per minute.

In this activity, you will jump rope until your heart rate reaches 185 BPM. You will record that time in the table below. You will rest (while slowly walking) and record how long it takes for your heart rate to return to 155 BPM. If your heart rate does not return to 155, continue walking and do not move on to the second set.

1. Begin with warm-up and dynamic stretch.
2. Jump rope (at 140 beats/revolutions per minute) until you hear the beep indicate that you are at 85% of your maximum heart rate (approximately 185 BPM).
3. Rest. Walk around slowly (do not sit down) until your heart rate returns to 60% of your maximum heart rate (approximately 155 BPM).
4. Repeat jump rope/rest segment four more times (total of five), but make sure to rest and get your heart rate to 60% maximum; if your heart rate does not reach 60%, then do not begin jumping rope.
5. End with cool-down and static stretch.

	Jumping Rope		Recovery/Rest Period	
	Total Jumping Time	Average Heart Rate	Total Recovery Time	Average Heart Rate
1st Set				
2nd Set				
3rd Set				
4th Set				
5th Set				

Evaluation

1. During the exercise portions of jumping rope, what happened to the amount of time you spent jumping rope? Explain.

HOP, SKIP AND

A

JUMP

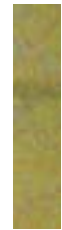
By Joseph A. Arangio, M.S., C.S.C.S.

The boxing coaches of yesteryear knew a thing or two about conditioning. You might envision a grumbling Burgess Meredith-type from *Rocky* with a towel around his neck and an overflowing spittoon at his feet, barking observations through clenched teeth, *"This guy will kill you to death inside of three rounds!"* The old-fashioned tools, like the medicine ball and jump rope, are simple in design yet effective in the gym.

JUMP

**Train like a prizefighter
with this highly effective
jump rope workout**





Today the jump rope

is considered the training modality of choice, in and out of the ring. World-class boxing trainer Teddy Atlas touts the benefits of a jump rope workout for both competitive fighter and routine gym-goer. "A boxing-style jump rope workout improves cardiovascular conditioning and builds

endurance. It sharpens agility, balance and timing," says Atlas. Better yet, jumping rope breaks up the monotony of running on a treadmill or doing roadwork outside. If your knowledge of the rope is limited to grade school gym class, you'll be surprised at how jump rope training can strengthen the heart and lungs while improving coordination. Best of all, a good rope will only

put you back a couple of bucks. Next time you're at the gym, take a break from the stair stepper and try the high-intensity jump rope workout used by tough, pug-faced fighters with names like "Granite Lou" and "The Hammer." (Flowery titles, such as "Jim 'Cotton Candy' Smith," are frowned upon in the boxing world.) With a little practice, you'll be skipping like a champ.



Find the right rope

Jump ropes come in a variety of lengths, weights and styles. If you're new to the game, start with an adjustable plastic-segmented rope (the kind you used when knee-high tube socks were cool). If the rope is too long or short, you'll be forced to adjust your body mechanics—this will result in poor jumping technique. To determine proper rope length, stand on the center of the rope and pull it straight up—the top of the handles should reach your underarms. Ideally, the rope should not touch the floor when you are jumping.

How to jump rope

Step-by-step instructions from the ground up:

- > **CHOOSE A FORGIVING SURFACE.** Hardwood floors or a firm exercise mat are your best bet. Jumping on concrete may lead to shin pain.
- > **GET ON THE BALL.** You should rise and fall on the balls of your feet—the heels barely touch the floor.
- > **JUMP ONLY AN INCH FROM THE GROUND.** If you jump too high or kick the feet back, the rope will get caught on the tips of your feet. "Then you'll look like an amateur," says Atlas.
- > **KEEP THE KNEES BENT.** The knees and calves are your shock absorbers. To avoid a nagging overuse injury, land softly.
- > **STAND TALL.** Avoid the temptation to lean forward or backward.
- > **GET A GRIP.** Grasp the handles, at the level of your hips, with a soft yet firm hold.
- > **FLICK OF THE WRIST.** Here's where all of the action occurs. Turn the rope with your wrists and keep the upper arms stationary.
- > **STAY LEVEL.** Keep the elbows bent and close to your sides. As the elbows drift away from the body, the rope shortens and makes you trip.
- > **RELAX THE SHOULDERS.** A hunched posture is better suited for a bell tower than a boxing gym. Keep the shoulders down and concentrate on the rhythm of the rope.
- > **KEEP YOUR CHIN UP.** Staring at your feet won't help your skipping progress. Keep your head in a neutral position and breathe normally.

Getting started

Boxing legend Sugar Ray Robinson would attract crowds eager to watch him skip rope. "He would do things to make the rope come alive," says Atlas. Before you can make your jump rope "dance," you've got to learn the basics. But it's challenging to jump for more than a few minutes without getting tangled like a novice. In order to keep the heart pumping for a 20-minute workout, plus avoid frustration, follow the step-by-step instructions before you show off your skipping skills. After a good warm-up, perform each step for three minutes. When you start to fatigue, perform the transition phase instead of stopping.



STEP 1

Practice without the rope: Simply hop up and down on your toes.



STEP 2

The transition phase: Hold both ends of the rope in one hand. Swing the rope and jump.



STEP 3

Jump inside of the rope: You know what to do.

Prevent shin splints

Train the lower legs to avoid this common overuse injury

If you're new to jump rope training, you may experience pain in the front of your lower legs. This disorder, called shin splints, is usually the result of repetitive running or jumping on hard surfaces. "The best remedy is to strengthen the anterior tibialis muscles, which are located on the front of your shins," says Mike Hosak, Jr., P.T., a sports physical therapist at Valley Sports and Arthritis Surgeons in Allentown, Penn. In order to protect the bones in your legs from the stresses of rope jumping, the neighboring muscles need to be strong. Next time you train the calf muscles, add these shin-strengthening exercises to your routine:

> SEATED TOE RAISE

Sit facing a wall and place your foot underneath the edge of a 25-pound weight plate. The other end of the plate should be touching the wall. Press the heel firmly into the floor as you raise the plate with your toes. Try three sets of 15 repetitions with each foot.



> REVERSE CALF RAISE

Stand with your heels on the edge of a step with your toes hanging over the edge. Place your hands on a stable object, to maintain your balance. Point your toes (plantar flexion) as far as you can without moving the heels. Slowly raise the toes toward your shins (dorsiflexion). Do two sets of 15 repetitions with your body weight.



TIP: For added variation, sit on a bench, position a 30-pound dumbbell between the feet and do the same movement.



JUMP ROPE WORKOUT

BEGINNER

Before you try to emulate Rocky Balboa's rope skipping prowess, master these bread-and-butter movements.

Two-Foot Jump

Assume the ready position: Stand feet together with your elbows close to the body and your hands at the level of your hips. Position the rope behind your feet. Push off the floor and initiate the rope action with your wrists. Repeat.



Alternating Two-Foot Skip

Begin with the standard two-foot jump. When you establish a rhythm, shift your weight between the left and right foot. Try this combination: right, left, two rights, left, right, two lefts. Start humming *Eye of the Tiger*.



INTERMEDIATE

Lateral Two-Foot Jump

Begin with the close stance of the two-foot jump. Skip from side-to-side, as if you are hopping over a line.



ADVANCED

High Knees

Start with the alternating two-foot skip and progress to a stationary jog. Once you are in the rhythm, alternately raise the knees toward the chest (like you're climbing bleachers).



Jumping Jacks. After you've initiated the two-foot jump, separate your feet in the air and land with the feet in this position. On the next jump, bring the feet back together in midair and land. Repeat, alternating your foot positions.

HEAVYWEIGHT CONTENDER

Double Jumps.

The jumping portion of this move necessitates more hang-time than the other exercises. As your feet clear the ground the rope should complete two rotations over your body. Work up to a set of five double jumps in succession.



Crossovers

Get this one down and you've earned bragging rights. Start with the two-foot jump. Cross the arms when the rope is above your head, jump and then uncross the arms as the rope passes overhead again.



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THE PRIZEFIGHTER'S WORKOUT

Rest for 60 seconds between each round

BEGINNER

Warm up: Easy jumping without the rope 5 minutes

Round 1: Two-foot jump 1 minute; transition phase 1 minute; two-foot jump 1 minute

Round 2: Two-foot jump 2 minutes; transition phase 1 minute

Round 3: Two-foot jump 1 minute; alternating two-foot skip 1 minute; two foot jump 1 minute

Cool down: Easy jumping without the rope 5 minutes

INTERMEDIATE

Warm up: Easy jumping without the rope 5 minutes

Round 1: Two-foot jump 3 minutes

Round 2: Alternating two-foot skip 1 minute; lateral two-foot jump 2 minutes

Round 3: Two-foot jump 1 minute; alternating two-foot skip 1 minute; two foot jump 1 minute

Round 4: Lateral two-foot jump 1 minute; transition phase 1 minute; lateral two-foot jump 1 minute

Cool down: Easy jumping without the rope 5 minutes

ADVANCED

Warm up: Easy two-foot jump 5 minutes

Round 1: Alternating two-foot jump 1 minute; transition phase 1 minute; two-foot jump 1 minute

Round 2: High knees 1 minute; transition phase 1 minute; high knees 1 minute

Round 3: Jumping jacks 1 minute; two-foot jump 1 minute; alternating two-foot skip 1 minute

Round 4: Double jumps 30 seconds; transition phase 1 minute; double jumps 30 seconds; alternating two-foot jump 1 minute

Round 5: Alternating two-foot jump 1 minute; crossovers 1 minute; two-foot jump 1 minute

Cool down: Easy jumping without the rope 5 minutes

