

THE **JUMP** ROPE MANUAL



Tim Haft
646-263-9128
tim@punkrope.com
punkrope.com

© 2020 by Punk Rope, Inc.
Unauthorized reproduction of this manual is prohibited by law.

Table of Contents

| | |
|--|----|
| About the Authors | 3 |
| Introduction..... | 4 |
| A Brief History of Rope Jumping..... | 5 |
| The Benefits of Rope Jumping | 6 |
| How to Select a Jump Rope | 8 |
| What's the Correct Length for Your Jump Rope? | 10 |
| Warming Up to Jump Rope | 11 |
| Cooling Down After Jumping Rope..... | 16 |
| How to Prevent Jump Rope Injuries | 19 |
| Correct Rope Jumping Posture | 21 |
| Proper Jumping Mechanics for Jumping Rope | 22 |
| How to Grip Your Rope..... | 23 |
| How to Turn Your Jump Rope..... | 24 |
| The Seven Deadly Sins of Jump Rope and How to Fix Them | 25 |
| Zen and the Art of Jump Rope..... | 35 |
| The Side Swing & Active Rest | 37 |
| Beginner Jump Rope Steps | 40 |
| Basic Bounce, Skier, Bell, Twister, Stagger | |
| Intermediate Jump Rope Steps | 46 |
| Scissors, Straddles, Alternate Foot, High Knees, Boxer, Single Leg | |
| Advanced Jump Rope Steps..... | 54 |
| Criss Cross, Double Unders, Skip, Lateral Shuffle | |
| Bibliography..... | 61 |

ABOUT THE AUTHORS

Born in Adrian, Michigan in 1960 and raised in New York City, **Tim Haft** was inspired to jump rope as a teenager by watching college wrestlers jump during their warmups. He continued to jump to stay fit through his 20s, 30s, and early 40s.

In 2004 Tim founded Punk Rope to share his love for rope jumping with the world and to provide a fun alternative to the traditional group fitness experience.

Tim is certified by the American Council on Exercise, USA Track & Field, TRX, the International Sports Conditioning Association, USAFIT, and Resist-a-Ball.

In addition, Tim holds a BS in history from the University of Virginia and an MA in sociology from New York University.

Shana Brady began jumping rope in 2005 as part of a research project she was conducting for an exercise science class at Queens College. She joined the Punk Rope team shortly thereafter, first as an intern, and ultimately as director of training.

Shana holds a BS in exercise science and is certified by the American College of Sports Medicine, the National Academy of Sports Medicine, the American Council on Exercise, and Functional Movement Systems. She has extensive experience providing personal and group training to seniors with an emphasis on corrective exercise.

Haft and Brady have trained and certified more than 1,100 jump rope instructors worldwide and have presented jump rope seminars at more than 125 CrossFit gyms, as well as at numerous public schools. They have also “jumped” more than 20 5Ks.



INTRODUCTION

Our goal in creating the *Jump Rope Manual*, and the accompanying video tutorials, is to share our knowledge of and passion for rope jumping with anyone who can benefit from this versatile mode of exercise.

We believe jump rope can be an integral part of the workout regimen of every exerciser and we're confident that it can make a positive difference in the health and fitness of individuals across the lifespan, from young children to seniors.

We've seen jumping rope put a huge smile on the faces of three-year-olds and eighty-three-year-olds. And we've witnessed time and again how jumping rope can make a child less sedentary, a teenager more confident, an athlete more competitive, and a senior more stable and less prone to falling.

In the pages ahead, we hope to clearly explain the basics of jump rope: selecting and sizing a jump rope, warming up properly, and preventing injury, as well as how to perform the specific jump rope steps that will yield the greatest fitness benefits.

Because our emphasis is strictly on fitness, the acrobatic jump rope tricks that you'll see at Cirque du Soleil or in competitions featuring professional rope jumpers are beyond the scope of this manual. In addition, as much as we respect and appreciate it, we've omitted Double Dutch from this manual because it's outside our area of expertise.



A BRIEF HISTORY OF ROPE JUMPING

Although the exact origins of rope jumping are unknown, there is some evidence that a rudimentary form of it was practiced more than a thousand years ago—possibly as training for the military—in ancient Egypt, Greece, and China.

Rope jumping, as we know it today, most likely originated in the Netherlands, making its way to America in the 1600s via Dutch settlers. Lydia Maria Child included tips on how to jump rope in *The Girls Own Book*, which she published in 1833, at a time when rope jumping was practiced mostly by boys.

By the 20th century rope jumping had grown significantly in popularity, particularly among schoolgirls in the inner city. It's difficult to say when rope jumping was adopted by boxers as part of their training, but certainly as early as the 1920s. Today, rope jumping is also part of the training regimen of elite athletes competing in wrestling, mixed martial arts, Muay Thai, soccer, tennis, basketball, cricket, track and field, speed skating, skiing, table tennis, and many other sports.

The increase in the interest in rope jumping over the past two decades can be attributed partially to the growing popularity of CrossFit as well as the creation by Crossrope of the Jump Rope Fitness Community (JRFC) on Facebook. It's not uncommon for CrossFit workouts—known as WODs (workouts of the day)—to require athletes to perform as many as 50 double unders, one of the more challenging rope jumping skills. In addition, there has been a proliferation in jump rope manufacturers as the race is on to see who can develop the lightest, fastest, and smoothest turning jump rope.



A group of jumpers in 1941 • photo by Edwin Roskam

THE BENEFITS OF ROPE JUMPING

Rope jumping is a total body exercise that leads to a wide range of profound fitness, health, and psychological benefits. The magnitude of these benefits is determined in part by such variables as rope jumping volume, frequency, and intensity. Below we explore some of these benefits and in the bibliography we cite numerous studies demonstrating the effectiveness of rope jumping.

Coordination: Rope jumping requires the ability to use different parts of the body—primarily the hands, wrists, and legs—together, smoothly and efficiently. In addition, in order to successfully jump rope the exerciser must have the ability to receive and process varied and highly complex visual, sensory, and auditory information.

Agility: Agility is the ability to move quickly and easily. Steps such as the skier and bell are extremely helpful for improving agility. It's not surprising that many boxers, wrestlers, tennis players, and other athletes incorporate rope jumping into their training regimen as it helps them to be quicker and "lighter on their feet."

Cardiorespiratory endurance: Because jumping rope is a total body exercise that challenges most of the major muscle groups, it's an excellent way to improve the heart and lungs. Just five minutes of jumping rope can prove to be a difficult challenge, even for someone who is relatively fit.

Speed: Rope jumping can improve both hand and foot speed, which is why it's popular with boxers, grapplers, martial artists, tennis players, and many other athletes.

Strength: Rope jumping can strengthen the calves, hamstrings, quadriceps, pectorals, deltoids, latissimus dorsi, biceps, and abdominals. Rope jumping is especially effective in building *strength-endurance* which requires a relatively long duration of muscle tension with minimal decrease in efficiency.

Body composition: According to research by McArdle and Katch, an adult who weighs 150 pounds will burn roughly 12 calories per minute performing the basic bounce at a relatively comfortable pace of 125 revolutions per minute. Jumping at a faster pace, using a weighted rope, or performing a more challenging step—such as the double under—can increase caloric expenditure significantly. Depending on volume and intensity, rope jumping can play a major role in winning the battle of the bulge.

Bone density: Dr. Vonda Wright, an orthopedic surgeon at the Center for Sports Medicine at the University of Pittsburgh, believes that exercise which involves impact is essential for making—and keeping—our bones strong. This can be done, she said, through hopping or jumping rope 100 times a day, which would take roughly 1 minute.

Timing: In order to improve the brain's timing system, we have to engage in activities that synchronize our bodies with a beat, either internal or external. Jumping rope is a great way to do this. Consider using a metronome or music for external feedback.

Rope jumping is efficient

You can achieve significant fitness benefits from jumping rope in a relatively short period of time. Even five minutes is sufficient to get an effective workout. Beginners who frequently trip on the rope may need to jump for a longer period of time to get the same benefits as more proficient jumpers.

Rope jumping is relatively gentle on the joints

With good technique, the impact of rope jumping is rather minimal and significantly less than that of running. Skilled rope jumpers barely leave the ground and in the case of two-footed jumps such as the basic bounce, the impact at landing is distributed across both feet whereas for runners the impact is always on a single foot.

Rope jumping is relatively easy to learn

With just 15 minutes of practice a few times a week you can expect to improve your rope jumping skill considerably in a short period of time. Compare this with other activities such as swimming, Olympic lifting, boxing, and fencing which have a much steeper learning curve and require more training and practice before the athlete becomes reasonably proficient.

Rope jumping offers endless variety and challenges

In this course we present a number of basic rope-jumping steps with a focus on fitness, but the number of steps is practically endless so it's difficult to get bored.

Rope jumping is inexpensive

No special shoes are required. No gym membership is required. You can jump on an asphalt driveway or at a track. And a good jump rope can be had for less than \$10.



HOW TO SELECT A JUMP ROPE

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/0kqxPUjgmMs> (8:34)

Today, the number of jump rope choices is truly staggering and some of the prices for jump ropes are as well. There are more jump rope manufacturers now than at any other time in our history. In part this is due to the rise in popularity of CrossFit as CrossFitters, particularly those who compete in the CrossFit Games, are constantly on the lookout for the lightest, fastest, and most efficient jump ropes available. In addition, more and more fitness enthusiasts are purchasing jump ropes because apparently the word is out about how effective rope jumping is for increasing and maintaining fitness.

There are cable ropes, pivot-bearing ropes, and beaded ropes; there are weighted ropes, both with the weight in the handles and the weight in the rope; there are leather ropes, cloth ropes, plastic ropes, and rubber ropes; there are ropes that count your jumps and ropes that glow in the dark; there are ropes with short, medium, and long handles; and the list goes on and on.

But whichever rope you choose, we strongly encourage you to purchase one that can be adjusted, even if that just means having the ability to tie a knot in the rope. A fixed-length rope might suit you for a while, but as your skill level increases, you'll most likely want a shorter rope and even as little as one inch can make a difference.

With so many options, what's a jump rope newbie to do? Here's a simple checklist to help make choosing the right rope for you a painless process:

- 1) **What's your budget?** These days quality ropes range from less than \$10 to \$128 for the Crossrope Get Strong Set which includes two ropes. Don't feel compelled to spend a lot of money. Many world class rope jumpers use a simple plastic licorice rope for their routines and do better than just fine! If money is no object—and you have space for storage—then you might consider purchasing multiple ropes so that you have the right rope for each occasion.
- 2) **What's your primary fitness goal?** If you're goal is to increase your foot and hand speed or perform multiple unders (i.e., one jump but multiple rotations of the rope), then you'll want to use a lightweight cable rope for maximum revolutions per minute. If you're more interested in building strength, then you'll want to purchase a weighted rope, preferably one where the weight is in the rope rather than in the handles. If you want to learn fancy tricks, then consider a long-handle or beaded rope. For general fitness, you can't go wrong with a licorice rope that has free spinning handles.

3) What surface will you be jumping on?

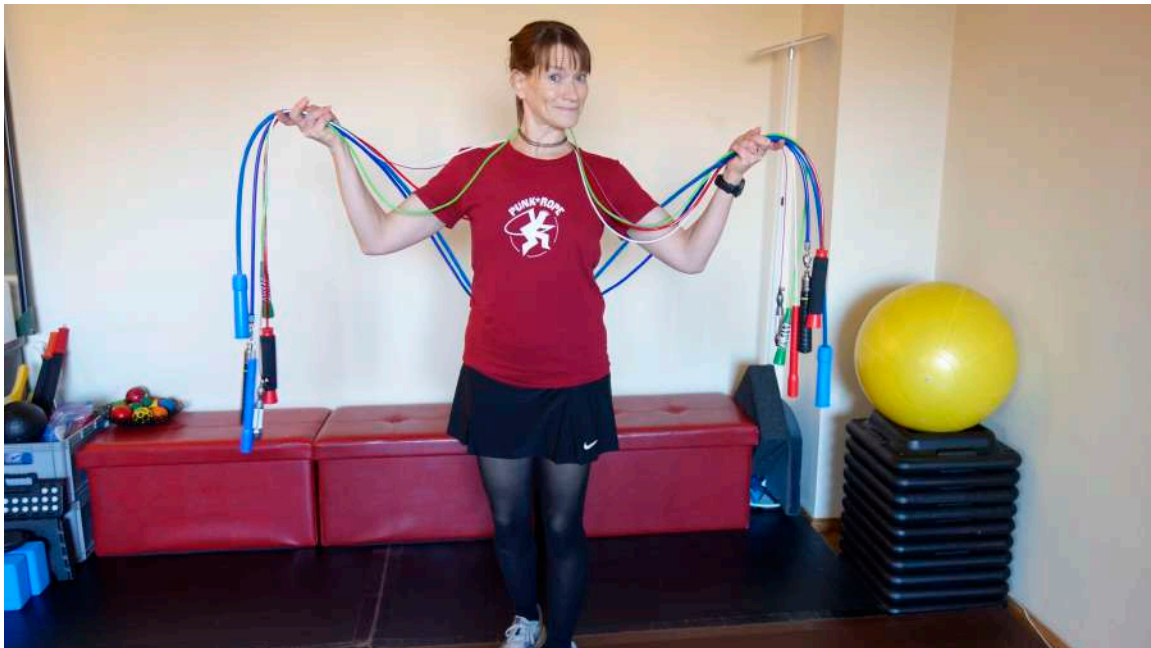
If you're jumping on a hard surface like cement or asphalt you generally want to avoid using a cable rope as the coating will wear away quickly, exposing the cable, and then it's just a matter of time before the cable starts to fray.

4) What's your skill level?

More advanced jumpers can excel with very light, fast-turning ropes. Beginners should stick with ropes that provide good sensory feedback, meaning they have a little more heft. A jump rope with a 5mm or 6mm cord is usually a good starting place for a beginner.

5) What's the best brand of jump rope?

There are many great brands including Punk Rope, Crossrope, RX, Rogue, and countless others. Unfortunately, these days it's next to impossible to walk into a sporting goods store and try out several ropes to determine which you like best. Instead, you need to rely on word of mouth and a leap of faith. Choose a brand that offers a customer-friendly return policy. At Punk Rope, we offer a full refund no questions asked so long as you send back your unwanted rope within 30 days of the date of purchase.



WHAT'S THE CORRECT LENGTH FOR YOUR JUMP ROPE?

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/hq0SEdaYBSc> (5:57)

So what is the correct length for your rope? Unfortunately, there isn't a simple answer to this question. The size of your rope will depend on the following factors:

- Your height
- Your level of skill
- How you prefer to “carry” your arms
- Your grip
- Your jump rope goal (e.g., speed, tricks, double unders, endurance, etc.)

We strongly prefer jump ropes that can be easily shortened as opposed to fixed-length ropes, especially for beginners. This is because as a jumper becomes more proficient, she'll typically want a shorter rope and it can get expensive buying a completely new rope every time you're ready to chop off a few inches.

But we have a feeling you're going to want a more prescriptive answer so here's a simple protocol that has worked well for us over the years:

- Stand on the middle of the rope with one foot.
- Pull the handles straight up so that the rope is taut.
- For beginners, the top of the handles should reach the shoulder.
- For more advanced jumpers, the top of the handles should reach mid-chest.
- You can shorten a plastic rope by tying one or more knots below the handle.
- Punk Rope jump ropes can be shortened by adjusting the snap lock mechanism.



WARMING UP TO JUMP ROPE

For an instructional video, copy the link below and paste into your browser:

https://youtu.be/_Q8t57Z5mg4 (4:29)

Your warm-up should last at least four minutes and should accomplish the following:

- Mobilize the body's major joints
- Elevate your heart rate
- Increase blood flow to the muscles
- Prevent injury by preparing the body for the more intense work to follow
- Improve performance by preparing the mind for the movements to come

In your warm-up consider including the following movements:

Shoulder rolls and arm circles

- Gently shrug your shoulders and then roll them backwards and forwards.
- Slowly make large circles with both arms in both directions.



Wood chop

- Wood chops, which involve extension followed by flexion, are an excellent way to prepare the hips, knees, and spine for the more intense work to follow.
- With a slightly wider than hip with stance, raise your arms overhead, bend backwards and inhale.
- Next, chop down—as if you were holding an ax—and exhale. As you chop down, bring your hips back; keep your head up and your back flat.



Spinal rotation

- With a wide stance and your arms relaxed, twist from side to side.
- Pivot on the ball of your foot and allow the opposite heel to lift off the ground.



Side bending

- To stretch the outside of your hip, bring one arm overhead and bend to one side while keeping your hips square. To increase the stretch, grab your wrist with your opposite hand. Next perform the stretch on the other side.



Adductor mobilization

- In many people, the adductors are quite tight. This move will help to prepare them for more extreme ranges of motion.
- Extend one leg and bend the opposite knee as you lean to that side
- Keep the knee aligned with your toes
- Next, stretch the other side



Hamstring mobilization

- Flex forward at the waist while keeping the legs relatively straight.
- Keep your chest lifted and try not to round your back.
- Once you feel a mild stretch in your hamstrings, pause for a few seconds and then return to the starting position.
- Keep the movement slow and controlled.



Butt kickers

- Jog in place while contracting your hamstrings forcefully so that your heels approach your butt.



Shadow jumping

- Mimic a variety of rope jumping steps, but without the rope.
- We like to begin with the basic bounce and then increase the intensity and complexity of the jumps as the warm-up progresses.



COOLING DOWN AFTER JUMPING ROPE

For an instructional video, copy the link below and paste into your browser:

https://youtu.be/V_KbEZnATYw (7:49)

After jumping rope it's important to cool down and stretch the muscles that you've vigorously contracted as well as to allow your heart rate to return to its resting state. We typically allow four to five minutes for our cooldown and hold each of the stretches illustrated below for roughly 30 seconds. But it's not a race; if you need more time, take it. And if you need to focus on other areas of the body that we haven't addressed below, do so. It's your body and only you know what it needs most.

Calf Stretch

- With your front knee bent and back leg straight, lean forward.
- Push against a wall, partner, or immovable object for better leverage.
- Keep your back flat—by tucking your pelvis—to get a deeper stretch.
- Keep your toes pointing straight ahead.
- Keep your rear heel flat on the ground.
- After roughly 30 seconds, stretch your other leg.
- Shift the focus of the stretch to the soleus muscle by bending your rear knee.



Hamstring Stretch

- Place the heel of your lead foot on the ground.
- Bend the opposite knee and shift your hips back.
- Hinge at the waist, but keep your chest lifted.
- Try to maintain a flat or slightly arched back.
- After roughly 30 seconds, stretch your other leg.



Quad Stretch

- Stand tall and reach back for your ankle. If you can't reach your ankle with your hand, loop a belt or yoga strap around your foot.
- Gently pull your heel up toward your butt until you feel a mild stretch.
- Look straight ahead and try to maintain a flat back.
- After roughly 30 seconds, stretch your other leg.



Glute Stretch

- Sit with one ankle crossed over the opposite thigh.
- Flex forward at the waist to increase the stretch. Keep your back flat.
- After roughly 30 seconds, stretch your other leg.



Hip Flexor Stretch

- Take a big enough step forward with either foot so that you have close to a 90° bend in your front knee. Keep your rear heel off the ground.
- Tuck your pelvis to flatten your back.
- Stand tall; don't lean forward.
- After roughly 30 seconds, stretch your other leg.

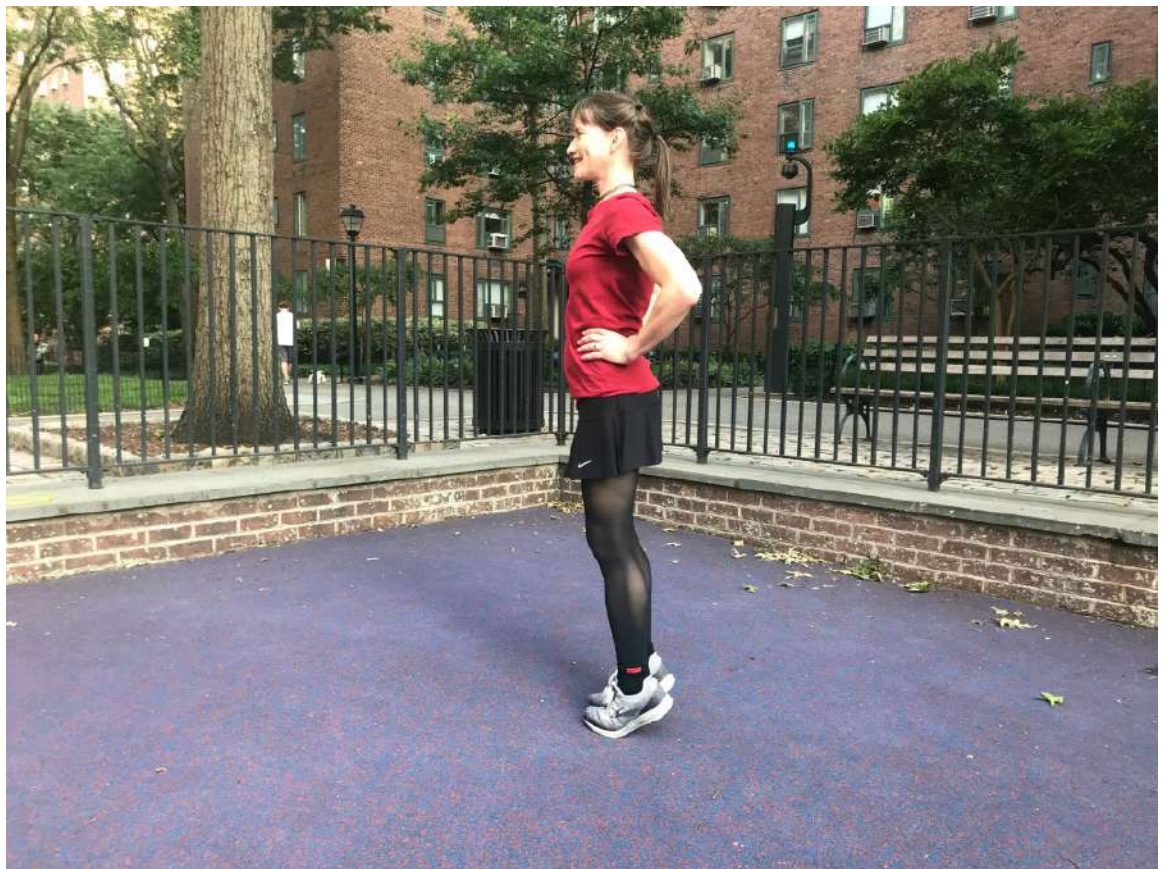


HOW TO PREVENT JUMP ROPE INJURIES

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/xAl4xTXnv4k> (7:35)

- While injuries are rare in rope jumping, it's not unusual for beginners to experience quite a bit of soreness if they do too much too soon. And if they really overdo it, shin splints, sore knees, or a strained calf could result.
- To keep shin and calf pain at bay, we recommend that beginners, in particular, perform the exercises below on a daily basis for 2-3 sets of 10-15 reps.
- To increase calf strength, perform the two-footed heel raise by lifting both heels off the ground at the same time from a standing position.
- Make sure your weight stays over your big toes.
- Don't let your ankles or feet roll to the outside.
- Don't allow your knees to cave in.
- If you have difficulty maintaining your balance, use a wall, sturdy object, or partner to steady yourself.



- To intensify the heel raise, attempt the one-leg version (pictured below) or perform the exercise on an incline.



- To increase shin strength, perform the two-footed toe raise by slowly lifting your toes toward your shins. If necessary, lean against a wall for balance. To intensify the toe raise, have a partner gently push your toes down as you lift them up.



CORRECT ROPE JUMPING POSTURE

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/GVSDBu8a9AQ> (5:37)

- Your feet should be parallel and close together. We call this mermaid position.
- The wider your stance, the more likely the rope is to get caught on the outside edge of one or both feet.
- Your weight should be on the balls of your feet. If your weight is in your heels, there's a good chance that you'll move backwards each time you land.
- The ankles, knees, and hips should be relaxed to minimize impact on landing.
- Keep the elbows in tight to the ribs by contracting the lats. The further the elbows stray from the ribs, the greater the load on the deltoids and the more likely you are to experience shoulder fatigue.
- Your hands should stay in front of your hips. If your hands move behind your hips, then your weight will shift toward heels and cause you to move backwards.
- Your forearms should either angle down slightly or be parallel to the floor. In general, you want to maintain at least a slight bend in the elbow.
- Keep the shoulders relaxed. Try to minimize tension throughout the body.
- Gaze in front of you at eye level. Avoid looking up.



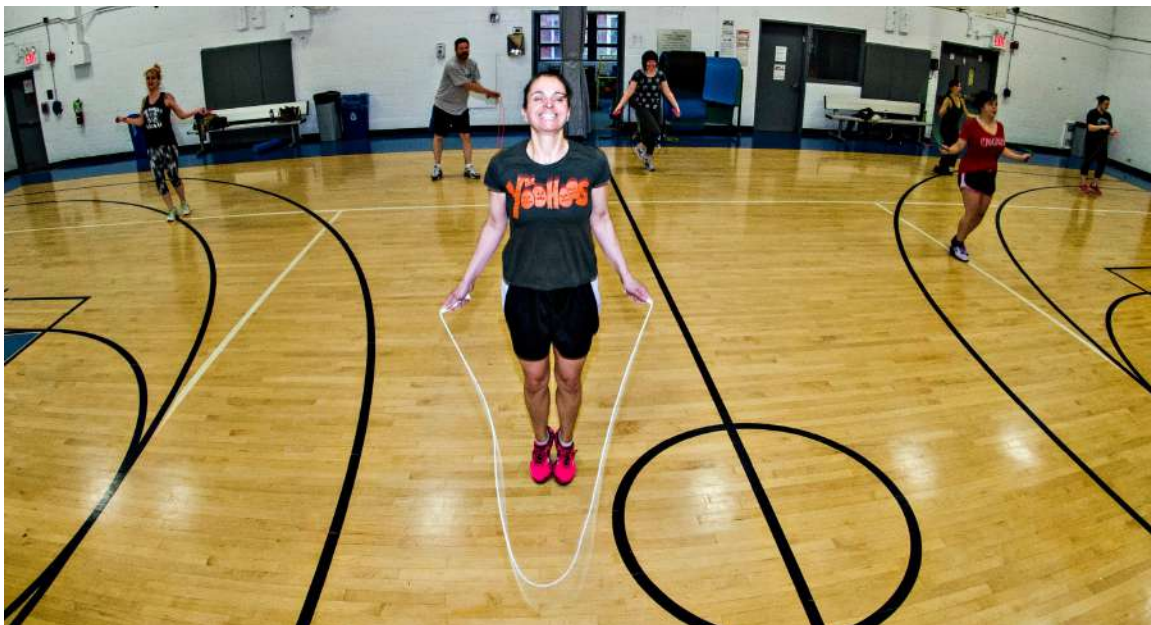
PROPER JUMPING MECHANICS FOR JUMP ROPE

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/fu6qdgSR2lo> (5:52)

It may seem obvious, but in order to jump rope you first need to propel yourself off the ground and then land. How well you do this will in large part determine how well you jump rope. Let's break it down step by step:

- In order to jump you first need to flex at the ankles, knees, and hips.
- Next you need to push off with the balls of your feet, using the muscles of your calves, hamstrings, quads, glutes, and core to propel you off the ground.
- But you don't want to jump too high because that's wasted energy. You only want to jump high enough to clear the rope, about an inch or so.
- And when you land you want to cushion your impact by flexing your ankles, knees, and hips. But you don't want to flex too much because that would also be inefficient as what goes down needs to come back up.
- Landings should be very gentle and quiet. The louder you are upon landing, the more likely it is that your ankles, knees, and/or hips are rigid.
- Also, pay attention to your knee alignment when you land. On impact your knees should remain aligned with the middle of your feet. If they cave in—in other words move toward the midline of your body—then you most likely have some weakness in your hip abductors and possibly your glutes.



HOW TO GRIP YOUR JUMP ROPE

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/VffM87dj3SQ> (5:03)

Your grip is your only point of contact with your jump rope and has profound consequences for how successful you'll be as a rope jumper. While to some extent grip is a matter of personal preference, we're confident that the tips below will be useful.

- Grip the handles lightly, but firmly enough that they won't fly out of your hands. There's no need to "white knuckle" the handles. Gripping them like your life depends on it will create unnecessary tension and lead to premature fatigue.
- Grip your handles with your thumb on top and then wrap your other fingers around the handles. It's a bit like shaking hands with the handles.
- Your thumb should rest about halfway down the handle. If you position it at the bottom of the handle you tend to lose control and power.
- Some jumpers like to keep their index finger extended (see below) to help with controlling the turn and to generate additional power.
- If your hands sweat profusely consider wrapping your handles in athletic tape or duct tape. You can also sprinkle your hands and handles with talcum powder.



HOW TO TURN YOUR JUMP ROPE

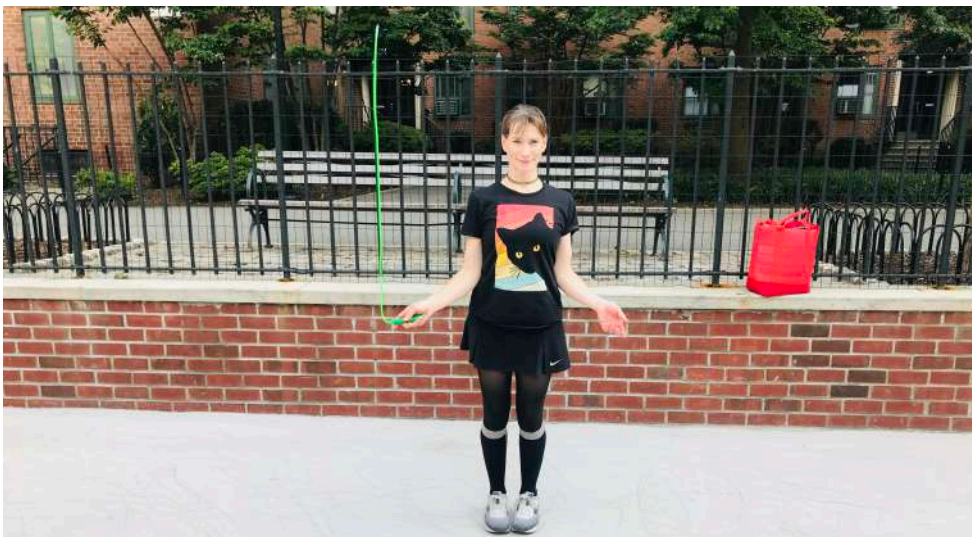
For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/sT53hdGI2PA> (7:19)

The key to successful rope jumping is in the wrist. The more proficient you are at turning the rope with your wrist, the less you'll have to rely on your elbows and shoulders. You won't fatigue as quickly and your rope jumping ability should improve exponentially.

To improve your jump-rope turning mechanics we suggest the following:

- Fold a plastic jump rope in half (a Punk Rope jump rope will work fine) or cut a plastic jump rope in half and then trim the excess cord so that when you spin the rope to the side of your body the cord barely grazes the ground.
- If you're using a full jump rope, take both handles in your dominant hand. If using half of a jump rope, grip one handle with your dominant hand.
- Use a gentle grip with your thumb on top, roughly halfway down the handle.
- Spin the rope forward by rotating your wrist as opposed to "throwing" the rope by extending your elbow joint.
- Keep your elbow close to your ribs and relax your shoulders.
- The rope "end" should strike the ground parallel to your feet. Avoid letting the rope cross the midline of your body or slide toward your heels.
- Work with a partner or look in a mirror to get feedback.
- Now try the windmill swing with your non-dominant hand.
- As your skill improves try: a) increasing your speed, b) closing your eyes, c) jumping as you perform the windmill swing (one jump for each turn).
- Practice the windmill swing 3-5 times per week for bouts of up 20-30 seconds followed by 30 seconds of rest. Five bouts per practice session is sufficient.



THE SEVEN DEADLY SINS OF JUMP ROPE & HOW TO FIX THEM

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/cLgHIYBSMBE> (11:13)

If rope jumping is new to you or if you haven't jumped in a long time, finding your "jump rope legs" can be a frustrating proposition. At the outset, many folks will encounter one or more of the various challenges outlined below. Fortunately, none of them are insurmountable. With a little practice and patience, and by using the strategies we suggest, you'll be jumping like a pro in no time.

Faulty timing

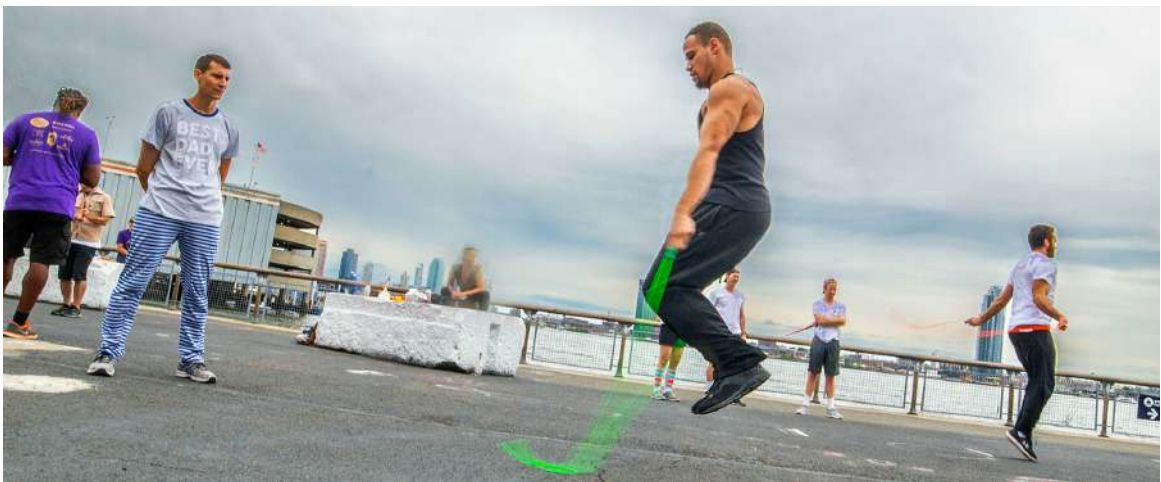
- This is perhaps the most common and the most debilitating of the deadly sins because without proper timing jumping rope will be extremely frustrating.
- With faulty timing, the jumper almost always leaves the ground too soon, although it's also possible to jump too late.
- Typically, the jumper jumps first and turns second or jumps and turns at the same time. Either approach will lead to a high jump and/or a miss.
- To be efficient, you need to turn first and jump second.
- Jumping while turning your rope to the side can help you improve your timing.
- Even better is to have a coach observe and videotape you.
- As your rope approaches your feet you should be preparing for takeoff. If you're already well in the air (see photo below) when your rope is at waist height or above, you're jumping too early and need to be more patient.



Jumping too early

Dropping your hands

- As the rope comes over your head keep your hands close to hip height.
- It's okay if you gently flex and extend your elbows while turning the rope, but if you transition from deeply bent elbows to straight arms, the rope will strike the ground way in front of you, bounce, and likely catch your toes or ankles. And if you're lucky enough for the rope to pass under your feet there's a good chance that on the way back around it might graze the top of your head.
- Assuming your rope is correctly sized, it should strike the ground between six inches and one foot in front of your toes.
- To solve the problem of dropping your hands, try to keep your elbows in tight to your ribs and your hands close to hip height.
- Turn the rope with your wrists and minimize the motion at the elbow joint.
- Looking in a mirror or having a coach observe you can help.
- If dropping your hands continues to be a problem, spend some extra time practicing the windmill swing in order to improve your wrist dexterity.
- The more proficient you become at turning the rope with your wrists the less likely you'll be to drop your hands and rely on your elbows.



Geo has dropped his hands; notice the straight arm

Bringing your hands behind your hips

- In order to jump rope successfully you need to be on the balls of your feet so you can quickly spring back up after each bounce.
- If you land on your heels you will likely back up each time you land and it will be difficult to generate the force needed for each successive jump.
- If you jump with your hands behind your hips as in the photo below, your chest will open up and your weight on impact will transferred to your heels.
- The fix is to keep your hands where you can see them. Performing drills to improve your peripheral vision can help.
- Typically, jumpers who bring their hands behind their hips are “muscling” the turn of the rope with their triceps and lats. Using the windmill swing to improve wrist dexterity should help to alleviate this problem.



The jumper in the center of the photo has her hands well behind her hips

Turning your rope from the elbow or the shoulder

- **Turning your rope from the elbow** is the less egregious of the two mistakes.
- If the bend in your elbow is subtle you should have nothing to worry about.
- But if you're turning the rope by repeatedly deeply flexing and fully extending your elbows (similar to mistake #1, dropping the hands), then you will likely find it difficult to establish consistent timing and rhythm.
- Also, the extra motion is inefficient and can lead to premature fatigue.
- As with many mistakes in rope jumping, the fix is to improve your turning mechanics by practicing the windmill swing.



Turning from the elbow

- **Turning your rope from the shoulder** presents more of a challenge as doing so places a significant extra load on the deltoids which tend to fatigue quickly.
- It also effectively makes your rope shorter (even though the actual length of your rope doesn't change), forcing you to jump higher to clear your rope.
- The fix is to be more mindful of keeping your elbows in tight (tucking them inside your shirt can help) and working on improving your wrist turning mechanics.



Turning from the shoulder

Jumping too high and kicking your heels back

- Ideally you want your jumps to be just high enough to clear the rope, around one inch for single unders. But this means your timing also needs to be flawless.
- If you jump too early, you'll need to jump higher because it takes time for the rope to spin over your head and get to your feet.
- Many beginning jumpers jump too high because doing so gives them more margin for error. Nobody enjoys tripping over their rope.
- But if you jump too high, as Heather does below, you're wasting a lot of energy and will get tired much faster.
- The fix is to keep practicing your jumps without the rope. Keep them low.
- Next jump while turning your rope to the side.
- And finally try to replicate the low jumps while jumping through the rope.
- Watching yourself in the mirror or having a partner or coach observe can help.



Jumping too high

- **Kicking your heels back** is a reflex. Your mind sees the rope coming toward your feet and it tells your feet to “get out of the way!”
- This might be caused by a fear of “missing” and/or your brain might perceive the rope as an external threat to your existence.
- By flicking your heels back as in the photo below, you’re ensuring that you clear the rope. While this makes sense on some level, it will lead to premature exhaustion along with sore feet, ankles, knees, and hips.
- As above, the fix is to keep practicing your low, soft jumps without the rope.
- Next jump while turning your rope to the side.
- And finally try to replicate the low jumps while jumping through the rope.
- Watching yourself in the mirror or having a partner or coach observe can help.



Kicking the heels back

The one-arm dominant turn

- Rope jumping is a bilateral activity. Each arm should contribute equally to the turn, however many of us are one-arm dominant.
- The easiest way to figure out if you're one-arm dominant is to videotape yourself while jumping rope or have a friend videotape you.
- Notice the arc of the rope as it's coming over your head. Ideally it should be centered over your head.
- If the arc is way off to one side, as in the photo below, the likely explanation is that one of your arms is doing more of the work. Put another way, you could say that the non-dominant arm isn't contributing enough.
- No matter how you phrase it, the key to fixing the problem will be getting the non-dominant arm to do its fair share. To correct the problem, you'll need to work on the windmill swing with your non-dominant arm.



Heather's right arm is dominating this turn, causing the arc of the rope to pull to the left

The double bounce

- A double bounce involves two hops instead of one for each rotation of the rope.
- The second bounce is a stabilizing jump which allows the exerciser some extra time to get ready to jump over the rope.
- The double bounce limits the speed of your rope rotation significantly and thus restricts the intensity of your jumping session.
- To eliminate the double bounce, you need to increase both your turning and jumping speed.
- Taking quick low jumps without the rope can help as can working on turning your rope to side while taking one bounce for each rotation of the rope.



Initial jump; rope has just passed under Heather's feet



Heather lands; rope is at waist height behind her



Heather jumps again and now her rope is overhead



Here's the second bounce BEFORE Heather's rope passes under her feet again

ZEN & THE ART OF JUMP ROPE

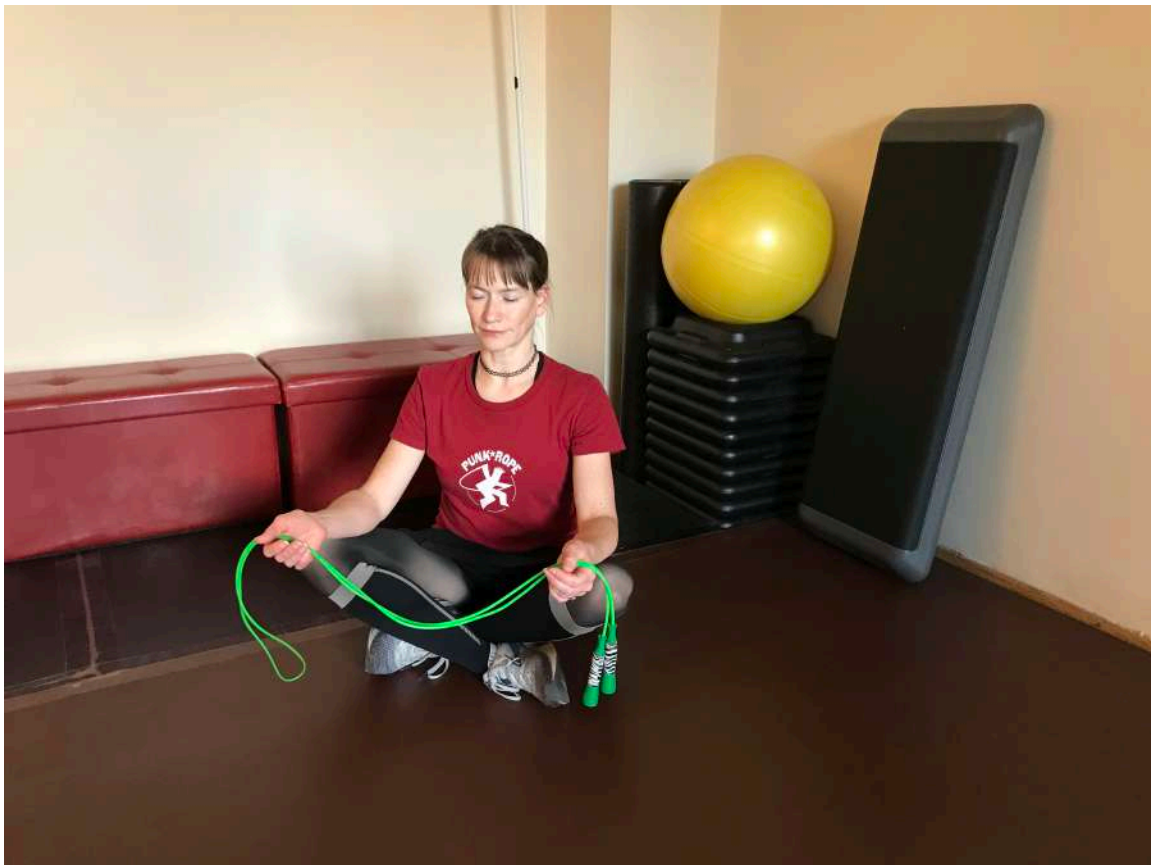
For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/QV6xhjrDdk8> (6:57)

While most exercisers tend to focus on the physical aspects of jumping rope, the truth is the mental aspects are probably more significant than we realize.

Over the years we've noticed that a lot of jumpers, especially beginners, are tense and anxious when they jump, and as a result tend to fatigue quickly and trip often.

While some of the tension may be strictly due to a physical cause such as an injury or inflexibility, we suspect that most of it is a result of counterproductive thoughts such as "I can't do this" or "I'm not a good jumper" or "this is too difficult." These thoughts in turn create tension and stiffness throughout the body.



While telling someone "to just relax" is likely to have the opposite effect, we've found the techniques below and on the following page to be beneficial for many of our students so we invite you to give them a try.

- Relax your grip: hold your handles as you would a beloved pet. You wouldn't choke your kitten or puppy so don't choke your jump rope.
- Close your eyes: sometimes taking away one of the senses can calm the body. With your eyes closed there are no visual distractions so your brain has less to process and as a result you might relax more than usual.
- Breathe: don't worry too much about how you breathe, but make sure you're not holding your breath while trying to jump rope.
- Talk: talking not only helps with breathing (you can't hold your breath and talk at the same time), but it can also serve as a calming distraction.
- Mantra: some folks find repeating certain words over and over to be relaxing. Remember to keep the words positive!
- Creative visualization: sometimes picturing yourself in a peaceful locale such as on a beach or in the mountains can aid with relaxation.
- Have a calming beverage: a cup of herbal tea might help you relax. A glass of wine or a pint of beer might do the same, but you didn't hear that from us.
- Take a break: if you find that you're missing a lot of jumps and getting frustrated, often a short "time out" of even just a few minutes will do wonders for resetting your brain.



THE SIDE SWING & ACTIVE REST

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/01wmMNnkYzs> (7:09)

- Everyone gets tired while jumping rope. It's just a matter of when.
- Swinging your rope allows you to catch your breath while remaining active.
- The **windmill swing**, introduced earlier, is the easiest swing to perform. All you need to do is take both handles in your dominant hand and spin the rope forward by rotating the wrist. Be careful not to hit yourself or your neighbor.
- You can also try spinning the rope forward with your non-dominant hand.
- To make things interesting try spinning the rope backwards with either hand.
- There are many other types of swings and rope-based non-jumping moves to try including the **side swing**, the double side swing, the crossover swing, the Luke Skywalker swing, the arm wrap, stir the pot, grasscutter, the behind-the-back rope pass, and the through-the-legs rope pass to name just a few.
- But it's only the side swing that allows you to transition directly from swinging to jumping. It's excellent for improving coordination, timing, hand speed, and cardiovascular conditioning. It's the king of the swings!
- To perform the side swing, grab one handle in each hand.
- Start with the handles close together and just above waist height.
- Keep your elbows close to your ribs.
- Move your hands in a figure 8 fashion.
- Free your hips and allow them to sway with the movement.
- If you stay relaxed and move your hands correctly, the rope should swing way above your head as your arms move upward and then swing down and graze the ground as your arms move downward.
- To transition from a side swing to a jump either bring one hand up and across to the opposite hip or pull both hands apart simultaneously. Either motion will create a loop that you can jump through.
- Once you have the hang of the movement try increasing your speed.
- You can also try a move we call "swing, swing, jump." Swing the rope to one side, then the other, and then open it for one jump. Keep repeating. See how many "swing, swing, jumps" you can do in one minute. Be prepared to sweat.



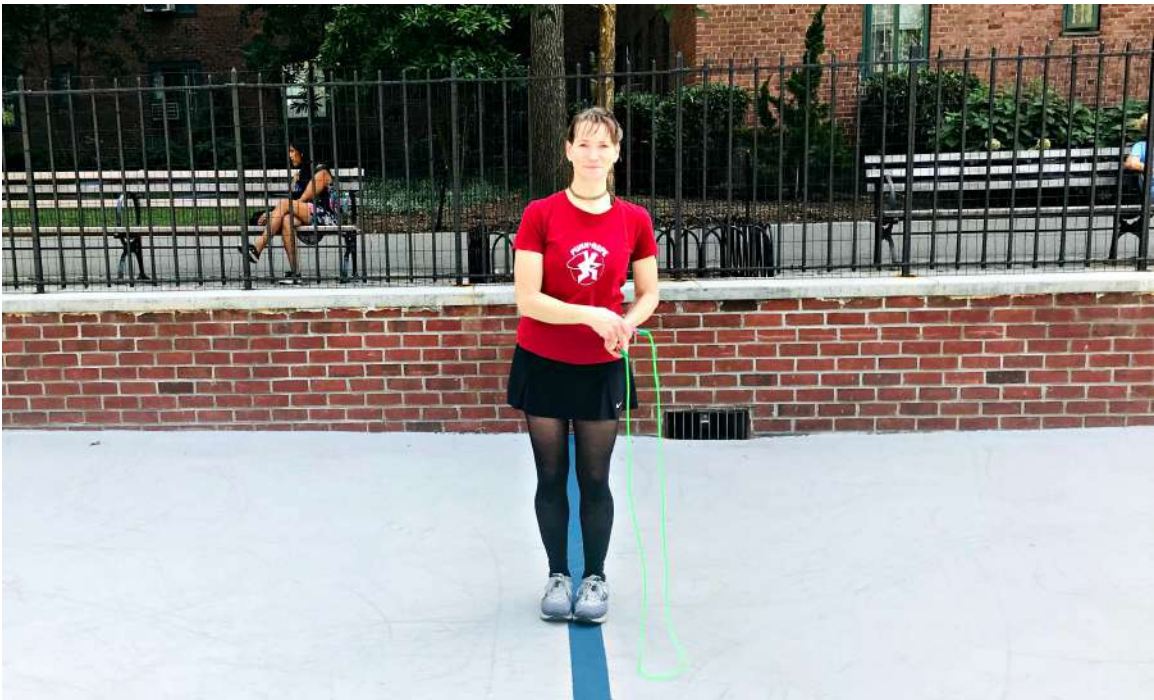
Up swing to the left



Down swing to the right



Up swing to the right



Down swing to the left completes one full cycle

BEGINNER JUMP ROPE STEPS

The most important goals for beginning rope jumpers are to establish proper rhythm and timing, learn how to turn the rope correctly, and establish good landing mechanics.

Safety always comes first. Beginners are typically at a higher risk of injury than more experienced jumpers as they tend to land with more impact. As a result, jumping volume should be progressed very gradually. We recommend increasing the amount of time you jump by no more than 10% each week. Slow progression will allow your joints and muscles to safely adapt to the increased demands on your body.

The jump rope steps described in this section are, in our opinion, the least complex. They allow the jumper to keep their feet together (with the exception of the stagger step) so their legs can work as one unit. In addition, with these steps your hands will also remain in the same position.

Once you're comfortable with a new step, consider attempting a variety of challenges such as moving forwards, backwards, laterally, and in rotation. You can also experiment with turning the rope backwards (i.e., toward your heels). And finally, you can attempt performing the new step with your eyes closed.

As your rope jumping improves, it's likely that your speed will increase and as your speed increases so will your caloric expenditure and probably your heart rate too. For many athletes, being able to jump rope faster will also lead to improvements in their chosen sport. For example, a boxer might find that she's lighter on her feet while a wrestler might notice that he can get his hands to his opponent's legs more quickly.

Many jumpers like to track their speed over time as one indicator of how much they've improved. Presumably as you get faster your jumps are getting lower and your turns are getting tighter. You may also find that as your skill improves you can use an even shorter rope, which in turn, may allow you to jump even faster.

To track your speed, you could have a friend count your jumps for a set period of time (e.g., 30 seconds) or you could videotape yourself for a given period of time and then count your jumps while playing back the video. Alternatively, you could use an app such as the Tally Jump which, in tandem with a smart phone, will count your jumps for you.

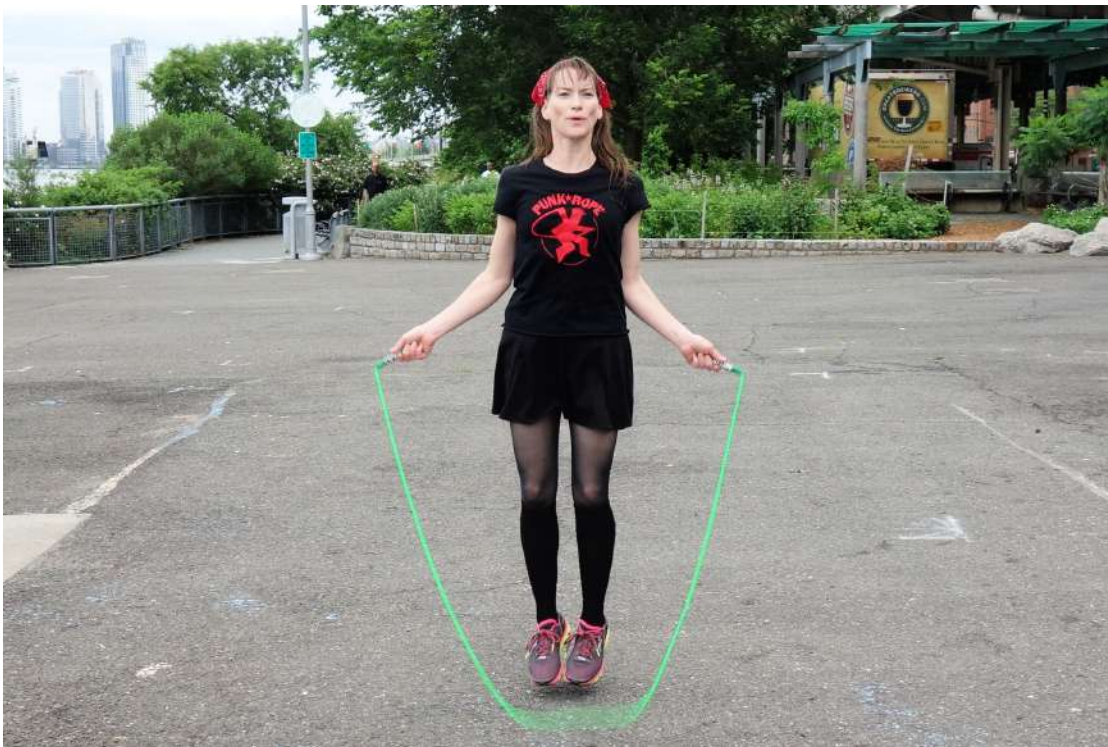


Basic Bounce

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/46EUt1kKQfw> (5:53)

- The basic bounce starts with good jump rope posture: feet close together, weight in the balls of your feet; soft ankles, knees, and hips; hands in front of your hips. You're completely relaxed and gazing ahead at eye level.
- If this step is new for you, begin by performing it first without your rope and then while spinning your rope (folded in half) or a wrist trainer to the side.
- Next, take one handle in either hand. Position your rope behind your calves and reach forward with your arms. This position should help you avoid getting your rope caught on your heels or pants (if you're wearing long pants).
- When you're ready to jump, drive your elbows back aggressively and then flick your wrists to get your rope started. After the first turn, momentum will carry the rope forward and you'll be able to keep your elbows in tight to your ribs.
- Keep your jumps low, between one and two inches off the ground.
- Remember to turn first and jump second.
- Once you've found your rhythm and timing consider the following challenges: 1) jumping forward; 2) jumping backward; 3) jumping laterally; 4) jumping in rotation; 5) turning the rope backwards; 6) jumping with your eyes closed

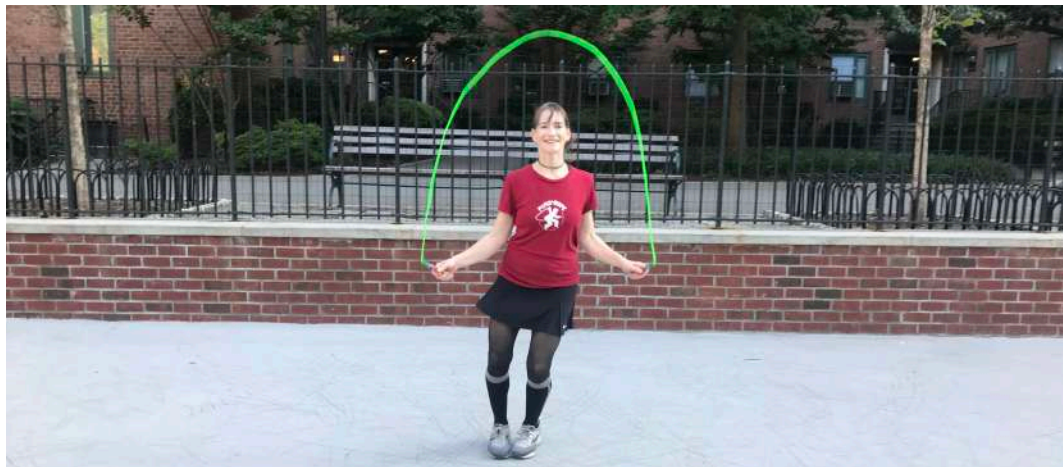
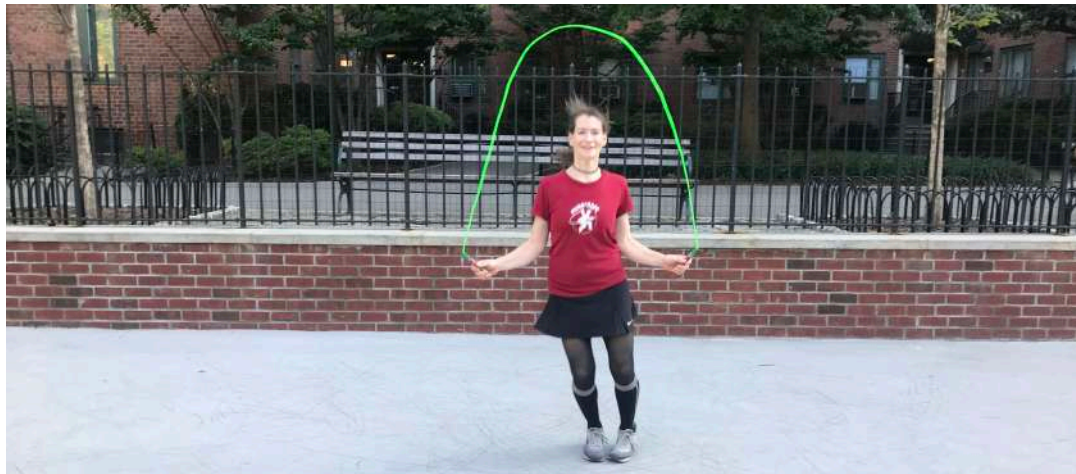


Skier

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/pwChCKLLwN8> (5:03)

- The skier does a good job of activating the core along with the gluteus medius and the gluteus maximus.
- The skier is effective for improving agility as it involves a rapid change of direction in the frontal plane (i.e., moving side to side).
- If this step is new for you, begin by performing it first without your rope and then while spinning your rope (folded in half) or a wrist trainer to the side.
- Next, with your full rope, perform the basic bounce three times for stability.
- When the rope passes under your feet the third time hop laterally to the right and on the next revolution of the rope hop laterally to the left.
- Keep your jumps low and at first keep the lateral hops small.
- Keep your feet close together to ensure you have a stable base and push off with the entire foot to propel yourself laterally.
- Challenges to try: 1) move forwards, 2) move backwards.



Bell Jump

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/z2ktpARV1qE> (5:18)

- The bell jump improves agility as well as core strength and will challenge your quads, hamstrings, and glutes.
- The bell jump is beneficial for athletes that need to make quick starts and stops in the sagittal plane such as tennis players and basketball players.
- If this step is new for you, begin by performing it first without your rope and then while spinning your rope (folded in half) or a wrist trainer to the side.
- Next, with your full rope, perform the basic bounce three times for stability.
- When the rope passes under your feet the third time take a small jump forward. On the next revolution take a small jump backward. When jumping forward lean back slightly. When jumping backward lean forward slightly.
- Challenges to try: 1) jump laterally as if moving up and down an agility ladder; 2) turn in a circle.



Twister

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/RzROgDQ1iiM> (5:06)

- The Twister is excellent for improving mobility of the hips and rib cage, increasing core strength, and changing direction while airborne.
- The twister is of particular benefit for athletes who spend a lot of time working in the transverse plane. This includes skiers, surfers, and skaters.
- If this step is new for you, begin by performing it first without your rope and then while spinning your rope (folded in half) or a wrist trainer to the side.
- Next, with your full rope, perform the basic bounce three times for stability.
- When the rope passes under your feet the third time, keep your upper body square (i.e., facing forward), but rotate your lower body to the right side.
- Keep your legs and feet together. Try a few jumps in this position.
- Next, rotate your lower body so it's once again facing forward. Try a few jumps.
- Next, rotate your lower body to the left side and try a few jumps.
- Finally, attempt rotating 180 degrees with each revolution of the rope. In other words, on the first jump you'll be facing to the right and on the next jump you'll be facing to the left or vice versa.



Stagger Step

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/4u1zG-nx6oo> (4:53)

- The Stagger Step will help you learn how to move your legs independently while jumping rope.
- If this step is new for you, begin by performing it first without your rope and then while spinning your rope (folded in half) or a wrist trainer to the side.
- Next, with your full rope, perform the basic bounce three times for stability.
- After the third jump, split your stance so one foot is slightly in front of the other.
- The distance from the heel of your lead foot to the toes of your rear foot can be as little as a few inches, but feel free to increase the distance over time.
- After several jumps switch the lead leg.
- There should be a slight bend in both knees upon landing.
- Try to land on both feet at the same time.
- As you become more proficient try increasing the distance between your feet.
- Challenges to try:
 - 1) turn the rope backwards
 - 2) increase the bend in your knees
 - 3) travel forwards and backwards while maintaining your staggered stance



INTERMEDIATE JUMP ROPE STEPS

With the exception of the stagger step, the steps described in the beginner section above involve keeping your legs together at all times. We call this mermaid position.

But now you're ready to take your rope jumping to the next level by learning how to move your legs independently—forward, backward, up, down, and laterally—while continuing to jump through your rope.

With the first two steps—the scissors and the straddle—your feet will stay low to the ground. Those steps tend to be easier for most folks to learn. The next three steps—alternate foot, high knees, and boxer—require more knee and hip flexion so tend to be more difficult to learn. And the final jump in this section—the single leg jump—isn't complicated coordination-wise, but it does require more ankle and calf strength.

There are other steps you might want to try that are comparable in difficulty to the ones described below. We've omitted them from this manual because they are less relevant for general fitness. They are jump rope taps (https://youtu.be/evq_AmHLiI8) and the playground hop (<https://youtu.be/o11eXG3inSk>).

Scissors

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/fgS9Cibl0Kg> (5:05)

- The scissors movement is particularly useful for athletes who need to rapidly and independently move their legs forward and backward (e.g., boxers, grapplers, soccer players) and has good carryover to most sports.
- If this step is new for you, begin by performing it first without your rope and then while spinning your rope (folded in half) or a wrist trainer to the side.
- Next, with your full rope, perform the basic bounce three times for stability.
- When the rope passes under your feet the third time, simultaneously bring your right foot forwards and your left foot backwards.
- On the next revolution of the rope, switch the position of your feet.
- Continue switching the position of your feet with each turn of the rope.
- You should land on the balls of your feet.
- Keep a slight bend in your knees, especially upon landing.
- Imagine your feet are gliding over the ground.
- Avoid aggressively flexing at the hip.
- Avoid kicking your feet forwards or backwards.
- Keep the range of motion small at first.
- Challenges to try: 1) travel forwards; 2) travel backwards; 3) travel laterally



Scissors with right foot forward



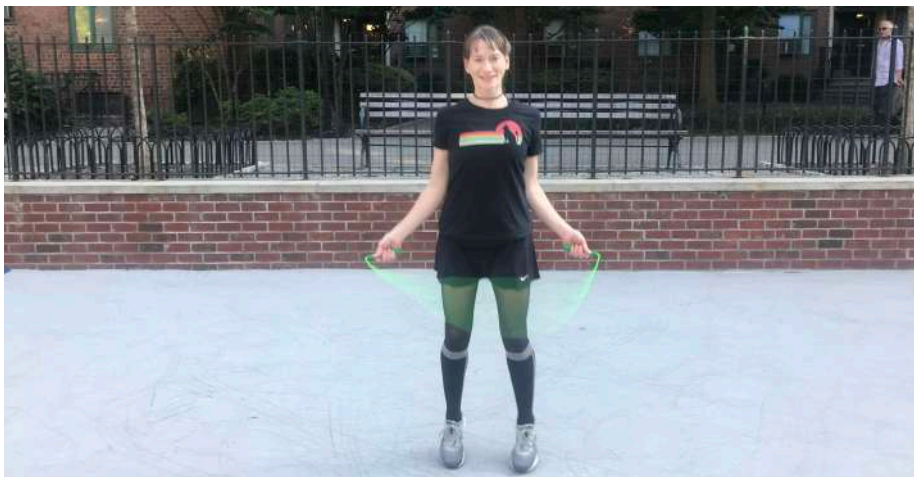
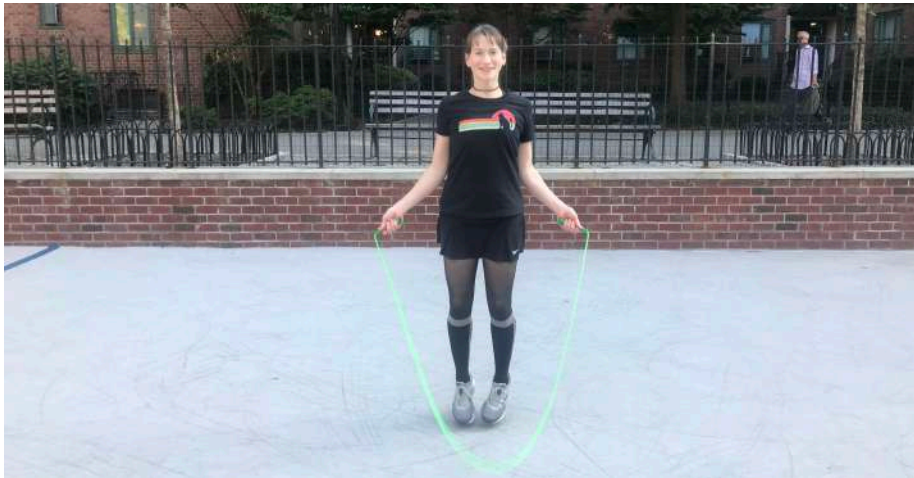
Scissors with left foot forward

Straddle

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/CyzMebvVZ3k> (4:58)

- The Straddle is best for athletes who need to quickly abduct and adduct their legs such as tennis players, wrestlers, figure skaters, and infielders in baseball.
- If this step is new for you, begin by performing it first without your rope and then while spinning your rope (folded in half) or a wrist trainer to the side.
- Next, with your full rope, perform the basic bounce three times for stability.
- When the rope passes under your feet the third time, abduct both legs. On the next revolution of the rope, move your feet back together.
- Keep the range of motion small at first.
- The straddle is a two-step jump. Don't attempt to move your feet apart and together in a single jump.
- Don't allow your knees to cave in on landing when your legs are abducted.
- Challenges to try: 1) travel forwards, 2) cross one leg over the other

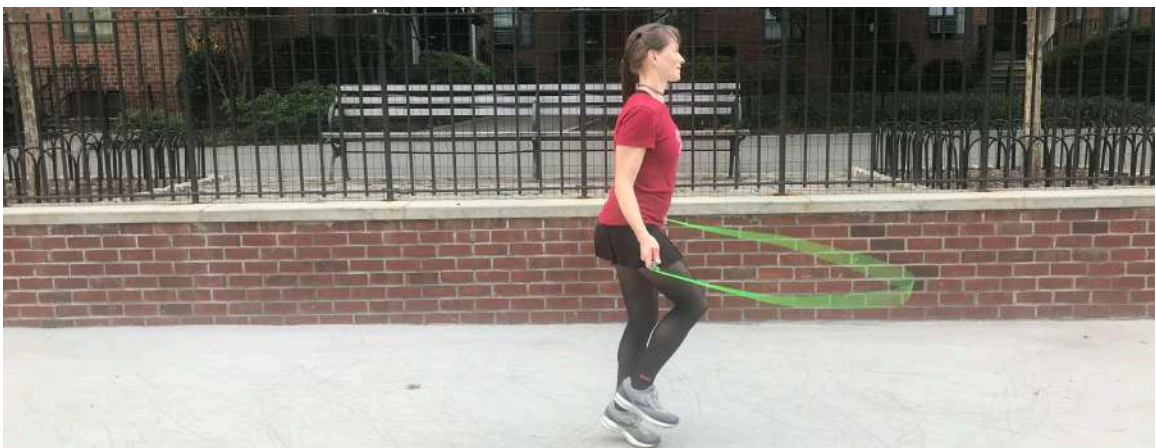
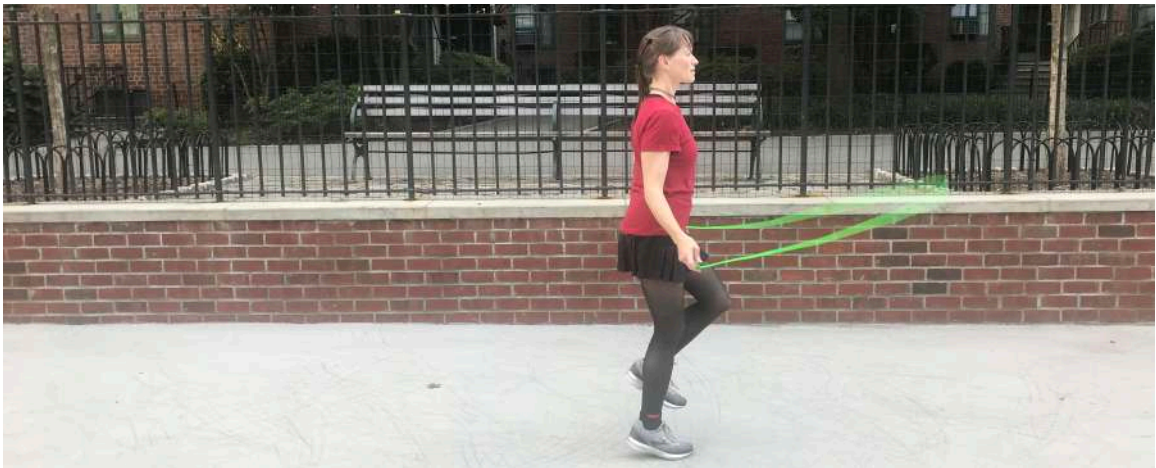


Alternate Foot Step

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/mefwbptpMN4> (7:43)

- The alternate foot step looks similar to jogging without a jump rope, but there are a few key differences: 1) your posture should be more upright, 2) your lead knee will stay forward of your hips, 3) don't kick back too high with your heels.
- The alternate foot step is an excellent choice for improving cardiovascular capacity and hand and foot speed.
- If this step is new for you, begin by performing it first without your rope and then while spinning your rope (folded in half) or a wrist trainer to the side.
- Next, with your full rope, perform the basic bounce three times for stability.
- When the rope passes under your feet the third time, plant your right foot and flex your left hip and knee. On the next revolution of the rope plant your left foot and flex your right hip and knee. Continue alternating in this fashion.
- Your feet should land directly below your hips. Don't kick back with your heels. As your knee flexes it should be in front of your hip as shown below.
- Challenges to try: 1) travel forwards; 2) travel backwards; 3) travel in rotation

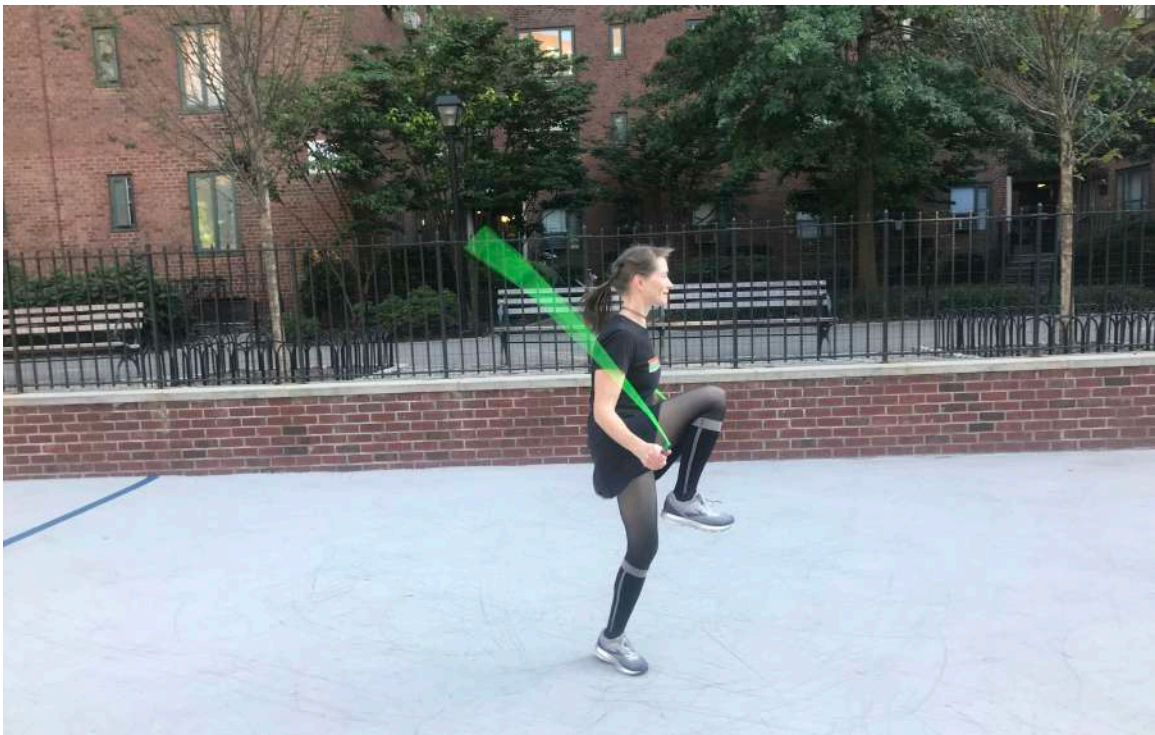


High Knees

For an instructional video, copy the link below and paste into your browser:

https://youtu.be/7dmJvZCk9_I (4:38)

- The high knees step not only improves the strength-endurance of the hip flexors, but also enhances general coordination and timing.
- High knees is a good choice for athletes whose sport or activity requires significant hip drive such as hiking, kickboxing, and American football.
- If this step is new for you, begin by performing it first without your rope and then while spinning your rope (folded in half) or a wrist trainer to the side.
- Next, with your full rope, perform the basic bounce three times for stability.
- When the rope passes under your feet the third time, hop off your left foot and drive your right knee toward your waist.
- On the next revolution of the rope, recover with the basic bounce.
- On the following turn, hop off your right foot and drive your left knee up.
- Challenges to try::
 - 1) repeat the movement on one leg 10 times before switching to the other leg
 - 2) turn the rope backwards

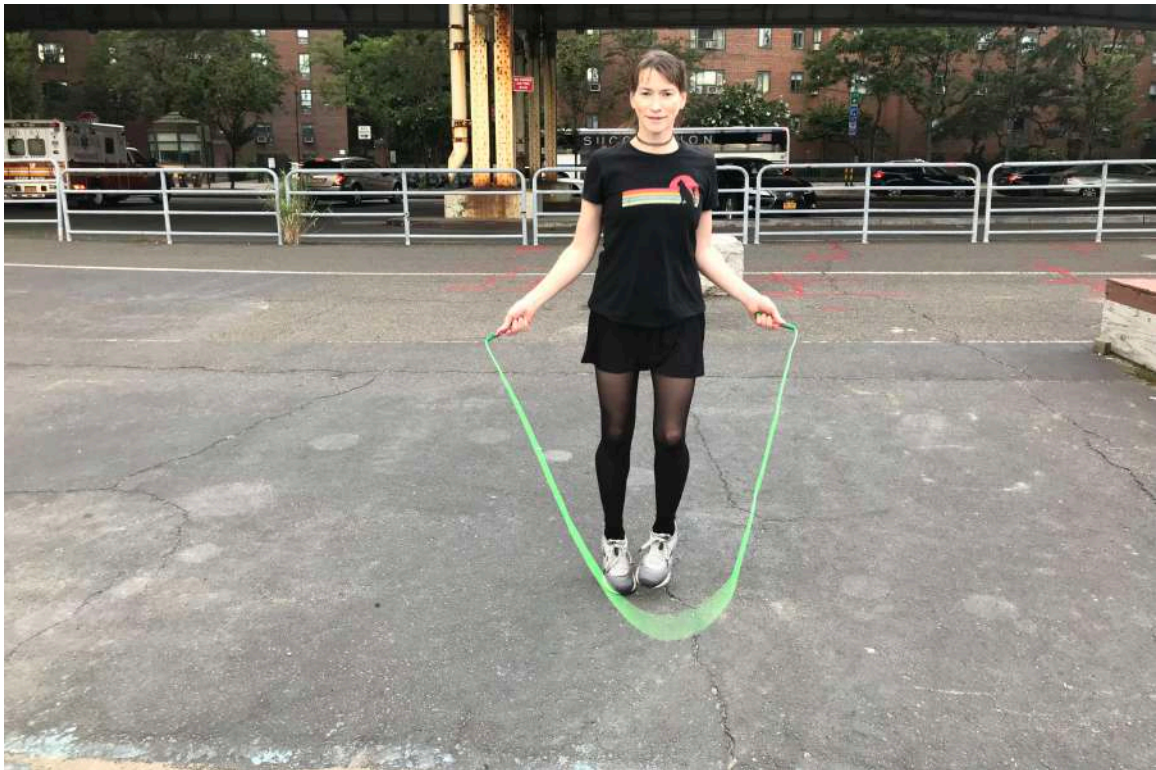


Boxer Step

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/Tf-GQ3bJyc0> (5:25)

- The boxer step is so named because it mimics the footwork typically used by boxers in the ring.
- The boxer step is excellent for improving endurance because it's so relaxed, but it's also beneficial for athletes who need to shift their weight from side to side.
- If this step is new for you, begin by performing it first without your rope and then while spinning your rope (folded in half) or a wrist trainer to the side.
- Next, with your full rope, perform the basic bounce three times for stability.
- When the rope passes under your feet the third time, hop off your right leg, shift your weight toward the left and gently tap your left foot to the ground.
- On the next revolution, hop off your left leg, shift your weight toward the right, and gently tap your left foot to the ground.
- Keep alternating your jumps in this fashion.
- Stay relaxed and allow your hips to sway gently from side to side.
- Keep your jumps as low as possible.
- Avoid kicking your heels back and lifting your knees too high.
- Keep your core engaged to prevent "sinking" into your hips upon landing.
- If you have difficulty with the timing and coordination, consider the following approach: jump on one leg three times; then jump on the other leg three times; then jump on the first leg two times and then the second leg two times; and finally, jump on each leg one time and then keep alternating. This approach can often enable a jumper to "back" their way into doing the step properly.
- Challenges to try:
 - 1) travel forwards
 - 2) travel backwards
 - 3) turn your rope backwards
 - 4) close your eyes

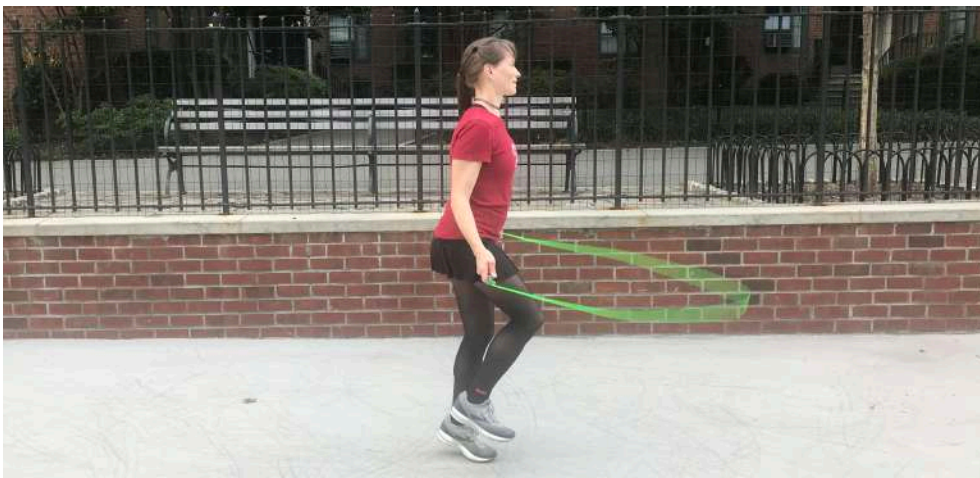


Single Leg Jump

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/IBg6EsUDczg> (5:00)

- The single leg jump is an excellent choice for building ankle stability and calf strength-endurance. Your glutes and hamstrings will also get a solid workout and your balance will likely improve too.
- Single leg jumping is useful for athletes whose sports involve a single-leg takeoff such as basketball and Australian Rules Football.
- If this step is new for you, begin by performing it first without your rope and then while spinning your rope (folded in half) or a wrist trainer to the side.
- Next, with your full rope, perform the basic bounce three times for stability.
- When the rope passes under your feet the third time, flex your left hip and knee so that you are now only hopping on your right leg.
- Make sure the knee of your jumping leg stays aligned with your toes. The opposite knee should be well in front of your hip.
- Try 3-5 jumps on your right leg then go back to the basic bounce for a few hops.
- Now flex your right hip and knee so that you are only hopping on your left leg.
- Try 3-5 jumps on your left leg then go back to the basic bounce for a few hops.
- Initially, keep your volume of jumps very low. As you get stronger you can increase the volume. 30 seconds of single-leg jumping is a good goal.
- Challenges to try:
 - 1) travel forwards
 - 2) travel backwards
 - 3) travel laterally
 - 4) try the skier jump or bell jump on one leg.



ADVANCED JUMP ROPE STEPS

The four steps covered in this section: the criss cross, double under, skip, and lateral shuffle—are a leap forward in complexity from those described in the previous section. They require better coordination, involve more intricate timing, and, in the case of the double under, necessitate more speed, strength, and power. The learning curve with these steps might be a little steeper, but the effort will be well worth it. In addition, there are scores, if not hundreds, of other advanced steps that you can try such as the Awesome Annie, the Crougar, the Caboose, and triple unders. The sky's the limit.

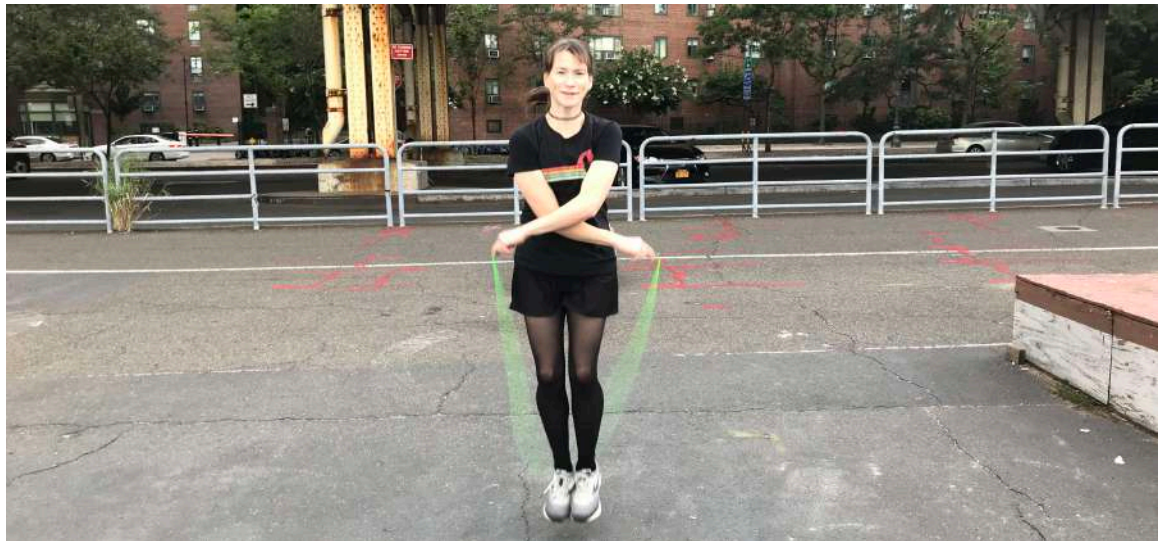
The Criss Cross

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/-6HY0TiQvI8> (7:55)

- The criss cross (also known as the crossover) is one of the most effective rope jumping moves for improving hand speed and coordination and as a result is a favorite among boxers, grapplers, martial artists, and any athlete who needs to move their hands quickly.
- If this step is new for you, begin by performing it first without your rope.
- Next, with your full rope, perform the basic bounce three times for stability.
- After the rope passes under your feet the third time, bring your forearms together in front of your body in the shape of an X.
- Decide which arm will cross over the other. Most jumpers prefer to have their dominant arm on top.
- On the next revolution uncross your arms.
- Don't try to cross and uncross in one jump. It's a two-jump step. Cross on the first revolution; uncross on the second.
- Avoid the tendency to jump too early. You have more time than you think.
- Initiate the cross with your arms first and jump second.
- As you cross, think about flicking your wrists toward your heels to assist with propelling the rope.
- Make sure your handles extend beyond your hips when your arms are crossed.
- The crossing motion is down toward your body, not out and away.
- Keep your arms tight to your body.
- Don't choke up on your handles, as that will reduce your margin for error.
- Move both hands across your body at the same rate during the cross.
- If your rope gets caught on your left foot most likely your right hand is moving across your body at a faster rate than your left.

- If your rope gets caught on your right foot most likely your left hand is moving across your body at a faster rate than your right.
- If you have difficulty performing the cross, you can mimic the arm motion and omit the jump. Hold both handles in your dominant hand and swing the rope in a figure eight fashion. You'll look a bit like the conductor of an orchestra.
- Challenges to try:
 - 1) Cross off some of the steps described in this manual such as the alternate foot step, the boxer, the high knees, and the straddle.
 - 2) turn the rope backwards
 - 3) cross and stick (i.e., keep your arms crossed while continuing to turn the rope)



Full cross



Beginning to uncross

Double Under

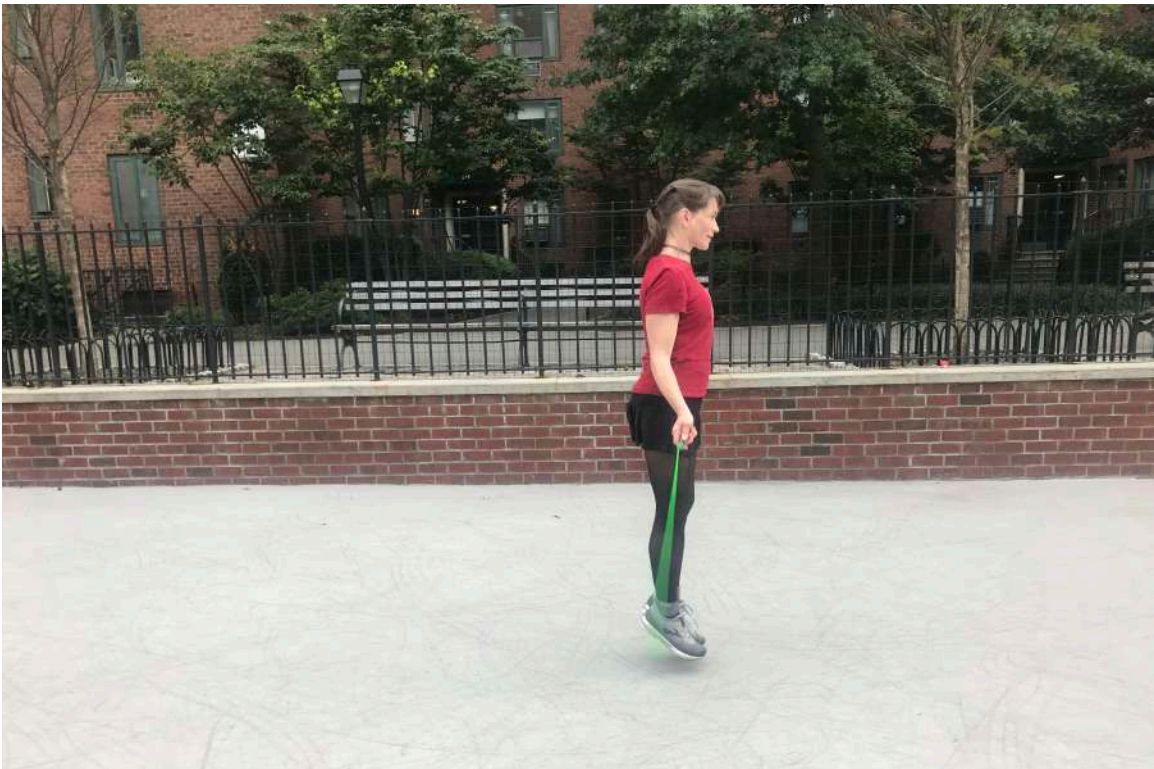
For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/c261o7TG-TE> (11:42)

- The Double Under involves two rotations of the rope for a single jump. It challenges coordination, quickness, timing, and cardiovascular conditioning.
- To perform a double under you'll need to jump a little higher than you normally would for a single under, but not so high that you're wasting energy. The extra height will allow the rope to pass under your feet twice for a single jump.
- To test if you're jumping high enough, jump without the rope and try tapping your thighs twice. The first tap should happen as soon as you leave the ground and the second tap at the apex of your jump.
- Do not tuck your knees, kick your feet back, or pike (flex at the hips while kicking your feet forward and lifting your toes).
- Keep your elbows pinned to your sides. Avoid dropping your hands and extending your arms, especially on the second revolution of the rope, and don't bring your hands behind your hips.
- The goal is to turn the rope fast enough so that it passes under your feet twice before you land. The key lay in aggressively flicking your wrists two times in a row as soon as you elevate. The wrist motion should be circular. Try not to "throw" the rope toward the ground.
- Decelerating a fast-turning rope is challenging, which is why many beginners miss the jump immediately following a successful double under. You can put the brakes on and slow your rope by extending your wrists.
- Consider shortening your rope. A shorter rope is a faster rope and you'll want more speed to ensure the rope spins twice for a single jump.
- If this step is new for you, begin by performing it first without your rope and then while spinning your rope (folded in half) or a wrist trainer to the side.
- Next, with your full rope, perform the basic bounce three times for stability.
- When the rope passes under your feet the third time, try a double under followed by three more single jumps. Then try another double under.
- If you're having success, try a double under followed by only two stabilizing jumps and eventually just one. Be consistent in your jumping pattern.
- If you're really getting the hang of it, try continuous double unders.
- A metronome or song with a steady drumbeat (typically in the 100-160 bpm range) can be useful to help you maintain your cadence. Alternatively, you can vocalize your own cadence (e.g., say aloud 1-2-1-2).
- Challenge to try: 1-leg double unders



Preparing for takeoff



The rope passes under the feet the first time



The apex of the jump. The rope has made 1.5 revolutions.



Landing after a successful double under

The Skip Step

For an instructional video, copy the link below and paste into your browser:

<https://youtu.be/6iwAz7HOGaU> (8:21)

- The skip step is our favorite step for long distance jumping. It's quite gentle and helps to improve timing and rhythm as well as cardiovascular conditioning.
- The lower body motion—a step followed by a hop and then repeated on the opposite leg—is identical to how you skip without a jump rope.
- To practice this step, you'll need a fair bit of space. Consider visiting a 400-meter track, asphalt running path, or a large gymnasium.
- If this step is new for you, begin by performing it first without your rope and then while spinning your rope (folded in half) or a wrist trainer to the side.
- Next, with your full rope, perform the basic bounce three times for stability.
- When the rope passes under your feet the third time, drive your right knee up, plant your left foot and take a small hop off your left foot. Next, drive your left knee up, plant your right foot and take a small hop off your right foot.
- When first attempting this step you might be tempted to turn the rope too quickly. Slow down. Complete one turn of the rope for each step-hop cycle.
- Challenges to try: 1) push off with more force to achieve higher elevation, 2) push off with more force to cover more ground horizontally, 3) time yourself while skipping a set distance such as 400 meters.



The Lateral Shuffle

For an instructional video, copy the link below and paste into your browser:

https://youtu.be/jrsN6OJ1y_E (5:39)

- The lateral shuffle is an excellent step for improving agility, coordination, and timing. It's similar to the side shuffle without the jump rope, but more demanding because of the need to jump through the rope while in motion.
- If this step is new for you, begin by performing it first without your rope and then while spinning your rope (folded in half) or a wrist trainer to the side.
- Next, with your full rope, perform the basic bounce three times for stability.
- When the rope passes under your feet the third time, take a step to the right and hop off the left foot. You'll need to time your hop so that the rope passes under both feet while they're in the air. Continue shuffling to the right for a few steps and then try the lateral shuffle while going toward your left.
- Challenges to try:
 - 1) change direction rapidly, 2) face off with a partner and try to follow their lead



BIBLIOGRAPHY

Eler, Nebahat Eler, Acar, Hakan Acar (2018)

"The Effects of the Rope Jump Training Program in Physical Education Lessons on Strength, Speed and VO2 max in Children"

Universal Journal of Educational Research 6(2): 340-345, 2018

<https://files.eric.ed.gov/fulltext/EJ1170647.pdf>

Kim, Jun; Won-Mok Son, Ronald Headid, Elizabeth Pekas, John Noble, Song-Young Park (2020)

"The Effects of a 12-week Jump Rope Exercise Program on Body Composition, Insulin Sensitivity, and Academic Self-Efficacy in Obese Adolescent Girls"

J Pediatr Endocrinol Metab. 2020 Jan 28;33(1):129-137.

<https://pubmed.ncbi.nlm.nih.gov/31812946/>

Ki-Chon, Jeong and Shin Jae-Geun

"Effects of Jump Rope Program on Motor Coordination of Children with Autistic Spectrum Disorder"

Research Journal of Pharmacy and Technology

2017, Volume 10, Issue 7

Kirthika, S. Veena, et al. (2019)

"The effect of skipping rope exercise on physical and cardiovascular fitness among collegiate males."

Research Journal of Pharmacy and Technology 12.10 (2019): 4831-4835

<https://www.proquest.com/openview/04e5c74c6d9b26877c24c504ce082a5e/1?pq-origsite=gscholar&cbl=1096441>

Mahboobeh Sohrabi Jahromi and Mandana Gholami (2015)

"The effect of jump-rope training on the physical fitness of 9 to 10 years old female students."

Advances in Applied Science Research, 2015, 6(4):135-140

<https://www.imedpub.com/articles/the-effect-of-jumprope-training-on-the-physical-fitness-of-9-to-10years-old-female-students.pdf>

Makaruk, H. (2013)

"Acute Effects of Rope Jumping Warm-Up on Power and Jumping Ability in Track and Field Athletes."

Polish Journal of Sport and Tourism, 20(3)

<https://content.sciendo.com/view/journals/pjst/20/3/article-p200.xml>

Masterson, G. L., & Brown, S. P. (1993)

"Effects of Weighted Rope Jump Training on Power Performance Tests in Collegians."

The Journal of Strength and Conditioning Research, 7(2), 108

[https://journals.lww.com/nsca-](https://journals.lww.com/nsca-jscr/abstract/1993/05000/effects_of_weighted_rope_jump_training_on_power.6.aspx)

[jscr/abstract/1993/05000/effects_of_weighted_rope_jump_training_on_power.6.aspx](https://journals.lww.com/nsca-jscr/abstract/1993/05000/effects_of_weighted_rope_jump_training_on_power.6.aspx)

McArdle W, Katch F, and Katch V (2001)

Exercise Physiology: Energy, Nutrition, and Human Performance, 2014, 8th edition Lippincott, Williams, and Wilkins, Appendix C.

Orhan, S. (2013)

"The Effects of Rope Training on Heart Rate, Anaerobic Power and Reaction Time of Basketball Players."

Life Science Journal, 10(4), 266-271

https://www.researchgate.net/publication/283476394_The_effects_of_rope_training_on_heart_rate_anaerobic_power_and_reaction_time_of_the_basketball_players

Ozer, D., Duzgun, I., Baltaci, G., Karacan, S., & Colakoglu, F. (2011)

"The effects of rope or weighted rope jump training on strength, coordination and proprioception in adolescent female volleyball players."

Journal of Sports Medicine and Physical Fitness, 51(2), 211-219

<https://pubmed.ncbi.nlm.nih.gov/21681154/>

Partavi, S. (2013)

"Effects of 7 Weeks of Rope-Jump Training on Cardiovascular Endurance, Speed, and Agility in Middle School Student Boys."

Sports Science, 6(2), 40-43

<https://www.sposci.com/PDFS/BR0602/SVEE/04%20CL%2007%20SP.pdf>

Pitreli, John & Shea, Pat (1986)

"Rope jumping: The biomechanics, techniques of and application to athletic conditioning."

National Strength & Conditioning Association Journal: Aug 1986, Vol 8, Issue 4 - pp 5-13

[https://journals.lww.com/nsca-](https://journals.lww.com/nsca-scj/Citation/1986/08000/SPORTS_PERFORMANCE_SERIES__Rope_JumpingThe.1.aspx)

[scj/Citation/1986/08000/SPORTS_PERFORMANCE_SERIES__Rope_JumpingThe.1.aspx](https://journals.lww.com/nsca-scj/Citation/1986/08000/SPORTS_PERFORMANCE_SERIES__Rope_JumpingThe.1.aspx)

Sung KD, Pekas EJ, Scott SD, Son WM, Park SY. (2019)

"The effects of a 12-week jump rope exercise program on abdominal adiposity, vasoactive substances, inflammation, and vascular function in adolescent girls with prehypertension."

Eur J Appl Physiol. 2019 Feb;119(2):577-585.

<https://pubmed.ncbi.nlm.nih.gov/30554386/>

Trecroci, A., Cavaggioni, L., Caccia, R., & Alberti, G. (2015)

"Jump Rope Training: Balance and Motor Coordination in Preadolescent Soccer Players."

Journal of Sports Science and Medicine, 14 (4), 792-798

<https://pubmed.ncbi.nlm.nih.gov/26664276/>

T. Wang, D. Goto, M. Manno, S. Okada, N. Shiozawa and K. Ueta (2021)

"Movement Coordination during Forward and Backward Rope Jumping: A Relative Phase Study"

2021 43rd Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC), 2021, pp. 4627-4630, doi: 10.1109/EMBC46164.2021.9630017

<https://ieeexplore.ieee.org/abstract/document/9630017>

Yamashita, Masatoshi, and Takanobu Yamamoto (2021)

"Impact of Long-Rope Jumping on Monoamine and Attention in Young Adults."

Brain Sciences 11.10 (2021): 1347

<https://www.mdpi.com/2076-3425/11/10/1347/htm>