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#### A START-UP GUIDE FOR ROLLER SKIERS

# **STABLE AND CONFIDENT**

- Route planning
- Safety and gear checklists
- Hazards to avoid
- Core fitness
- Roller-ski lessons

#### **BY DOUG GARFIELD**

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## Foreword

I am an unabashed fan of Jenex roller skis and the designer, Len Johnson and his team. Jenex roller skis have given me 20 years of Nordic skiing fun and improved my ski fitness and technique in ways I did not expect. They ski like no other.

I started roller skiing 42 years ago in Toronto. Three-wheeled skis were it then, outfitted with skinny wheels and unforgiving shafts, they were challenging—fast, no edging... rattled the fillings out of your teeth. Years later, along came Jenex... When I tried my first pair it reminded me of switching from wood to plastic skis (hate to say it, that old). Night and day. The ride was smooth, I could adjust tracking, edging felt natural, and the energy cost with the slowest wheels felt like the demand created by snow.

And Jenex skis get better and better year after year. For instance, the brake and speed-reducer systems add safety and valuable training options and the new hybrid shafts create performance qualities unmatched by other brands.

Roller skiing is not simply the transfer of snow-skiing skills to wheels. To be a capable roller skier, there are distinct habits and skills you need to understand and practice. That's what we cover in this short guide, which is aimed at new roller skiers, not veterans. The goal is to get you to "stable and confident" as quickly as possible. Best of luck! —Doug

## Introduction

Today many recreational and the majority of competitive Nordic athletes ski year-round thanks to roller skis. There's no arguing the skill and fitness benefits are worth the energy invested. But it is also a great pleasure to do. To stride, to skate in spring, summer, and fall offers unique rewards.

While similar to snow skiing, roller skiing presents unique challenges. If you are new to roller skiing, this guide will prove especially useful because you will learn how to maximize conditions for stable, confident roller skiing.

On the other hand, if you are an experienced roller skier, you know the drill. Still, I hope you find the checklists a handy reminder.

The six topics we cover in this guide address the unique demands of roller skiing. We'll review

- Roller skis
- Routes
- Pre-roll check
- Hazards on the move
- Core fitness
- Start-up lessons

## **Know Your Roller Skis**

#### **MOUNTING OF BINDINGS**

If you decide to mount your own bindings, follow the instructions provided by Jenex (binding location, drill-bit type and size, etc.).

Alignment is key: A small amount of error will cause a roller ski to pull in one direction, which will require you to make more corrections (more instability). (On a snow ski, it is unlikely you would notice the same amount of misalignment.) If you're uncomfortable with mounting bindings, ask your Jenex dealer to do this for you.

**Tip:** If you decide to mount your bindings, invest in the drill jig Jenex offers for the most accurate binding alignment.

#### WHEEL ALIGNMENT

Steering roller skis involves foot pressure and making ministeps (like snow skiing) to keep them headed in the right direction. Every skier, however, has unique biomechanics and weight distribution. To accommodate this, Jenex roller skis provide a way for you to make small adjustments in wheel alignment.

Fine-tuning wheel alignment makes a big difference in the ease of steering and it's simple to do. Follow the directions on the instruction sheet you received with your skis.

### Know Your Roller Skis, cont'd

#### SPEED REDUCERS

Speed reducers vary the amount of rolling resistance. Adding resistance increases physiological intensity and helps slow you down when descending sustained downhills. If you install speed reducers, practice using them so that you are comfortable operating them. Try several settings too so that you become familiar with the amount of resistance each position adds (it can be dramatic, adjust carefully).

**Tip:** Activate your speed reducers before you start a long downhill. In other words, anticipate. You will find it easier to operate them when stopped or rolling slowly rather than under the influence of rapid gravity.



Speed reducers let you fine-tune rolling speed.

### Know Your Roller Skis, cont'd

#### BRAKES

Another smart option from Jenex, roller-ski brakes. Brakes make it possible to moderate your downhill speed and slow to a complete stop at intersections and other situations requiring caution. For slowing down to manage changes in surface quality, blowdown, patches of gravel, blind corners, and hidden driveways, they're indispensable. Like speed reducers, practice makes perfect: learn their characteristics (and limitations).

**Tip 1:** Install your brake before installing your bindings to ensure optimal binding position for using your brake.

**Tip 2:** Practice emergency stops and light braking so that you know how to position your body for either situation.



Brake in folded position.

### Know Your Roller Skis, cont'd

#### **PNEUMATIC TIRES**

Inflation pressure influences the performance of your roller skis in several ways including rolling speed, grip, steering, and tread wear. For best performance (the most consistent rolling), check your tire pressure before every ski or at least every other ski and add air as needed.

**Tip:** You loose some pressure when you disengage the pump from the valve stem, so put a bit more air in than called for.



The one and only XL 150: Tolerates rough surfaces like no other roller ski.

## **Plan Your Routes**

Before you tour the neighborhood or country roads, plan carefully. Walk, run, or cycle the roads you plan to ski to get an accurate read of the surface quality and hazards. Here are some factors to consider.

- Quality of the surface (cracks, empty or tar filled)
- Traffic patterns (best, worst times to ski)
- Downhills: length, speeds (be certain you can manage your speed, negotiate turns, and stop at intersections safely)
- Hidden driveways (especially gravel ones that spill gravel onto the road)
- Areas that pool water
- Locations with lots of blow-down and fallen leaves
- Width of shoulders (space to pass or avoid other users)

Be cautious with downhills that require turns, braking to a stop at intersections, present abrupt changes in surface quality, or descents that exceed your comfort zone for speed.

Also, monitor new construction projects for surface changes, gravel, and trucks turning. And after high winds and rain storms, expect blow-down. In other words, stay alert and agile.

## **Pre-Ski Check**

Make it a habit to preflight your roller ski with the following checklist.

#### SAFETY GEAR

- Helmet and gloves? At a minimum, wear a bike or skateboard helmet and gloves (protect your hands in a fall).
- Reflective vest? Be seen!

#### **ROLLER SKIS**

- Tires in good shape? If pneumatic, check inflation pressure, add air if necessary. If you use your brake frequently, check wear on rear tire. Replace pneumatic tires when tread is worn off.
- **Binding and other screws tight?** Shake your roller skis one at time. If something rattles, tighten it.
- **Speed reducers operate smoothly?** Grease the roller arms so that selecting different settings is smooth and easy. A touch of bike grease prevents wear too.

## **When Roller Skiing**

#### AT THE START OF EVERY ROLLER SKI

- Brake(s) operate smoothly?
- Rolling at moderate speed, roller skis steer straight when evenly balanced? If not, adjust alignment before you ski.
- Carbide tips on your poles sharp? If dull, they will slip (which can cause a fall). Sharp carbide tips are vital for effective skiing especially in cooler weather — stop and sharpen them as needed.

**Tip:** Carry a #5 Allen key, the smallest Vise-Grip (5" long), and diamond file in small fanny pack. This will allow you to make changes in wheel alignment and sharpen dull carbide tips away from home base. The smallest Vise-Grip eliminates the fiddle factor by making it easy to hold the nut of the axle bolt when you loosen the bolt head with the Allen key.



Roll with these tools: diamond file, #5 Allen key, Vise-Grip (5" long).

## When Roller Skiing, cont'd

#### HALFWAY THROUGH A ROLLER SKI

When you are roughly halfway through your roller ski, stop and rotate your skis (left to right, right to left).

This simple procedure helps your tires wear evenly (hard or pneumatic), and as a result, makes tracking much easier ski after ski.

#### AT THE END OF EACH ROLLER SKI

When you finish roller skiing, rotate your skis again when you put them away.

This ensures that the next time you use them, you will start in the right rotation order for optimal tire wear.

## **Avoid Hazards**

#### SURFACE

Know the details of your roller-ski routes in advance. In general

- Expect blow-down and puddles after a storm. You never know what surprises Mother Nature has left for you to improve your agility.
- Anticipate cracks in pavement (open or filled with tar) and patches of gravel.
- When you encounter a hazard, slow down so you can steer clear or roll over it safely (more on this later).

#### PASSING

When passing from behind or approaching pedestrians, bikes, or other skiers, slow down, be courteous, and give plenty of notice – "On your left!".

It's a good idea to double pole too. Double poling narrows your profile and is more stable.

This is particularly important if you're skating: While your roller skis may not intrude into the space of oncoming pedestrians, your poles are likely to (or perceived to be). It is difficult to gauge. So be gracious, friendly, slow down, and double pole.

### Avoid Hazards, cont'd

Also keep in mind that Jenex roller skis roll quietly. And so...

#### You need to announce your intention to pass well in advance. Don't surprise walkers, runners, or other roller skiers.

If startled by your unexpected presence, people you encounter on the trail are as likely to move left into your line of travel as to the right and out of your way.



Kris Freeman. Perennial champion. V2 skier.

## **Firm Up Your Core**

The muscles that surround your spine (core muscles) are vital to movement and balance. It works like this:

- Core muscles are designed to **stop motion**. When fit, they stiffen your spine (the axial skeleton) to create a better foundation for your arms and legs to push against.
- In contrast, the muscles of your arms and legs (the appendicular skeleton) **create motion**. When your arms and legs connect to a firm axial skeleton they work more efficiently.

#### **RESEARCH PROVEN. EVIDENCE BASED.**

The many years of research by Stuart McGill Ph.D. at the University of Waterloo reveals that the best way to develop core muscles is to train them to work together (not isolated), the way we actually use them.

As you will see, his work has also made it easy for us to capture all the benefits that a strong core provides. In fact, to maximize core-fitness benefits, McGill recommends only three exercises — they are proven effective, safe, and do not require equipment.

But don't forget, the best core-fitness for Nordic skiers is produced by Nordic skiing itself. When skiing, your coremuscle activity is coordinated by skill, the complex sensorymotor instruction set of Nordic skiing.

## Firm Up Your Core, cont'd

This is true of any sport: skill directs your muscles in ways that fulfill the postural, movement, and power requirements of the activity (dynamic and static force development, timing... the list is long). In other words, true specificity.

#### McGILL'S BIG THREE (+1)

McGill recommends three exercises: the Curl-Up, Side Bridge, and Bird Dog. If you have a large exercise ball, there is a fourth too, Stir the Pot.

**Note about the Curl-Up:** Think of the Curl-Up as a way to learn how to create effective abdominal bracing. Once you have the knack, use this skill with any physical activity you do, in recreation, sports...physical chores of daily living. Use it when you move it.

#### RESOURCES

- Video introduction to McGill's work.
- Video of all four exercises.
- Video of modified Side Bridge (easier).

**How often should you do these exercises?** Daily is fine. But so is three times a week. Up to you. For example, I like to do them after every roller ski and bike ride.

The key? Do them.

## **Roller Ski Lessons**

#### LESSON ONE - PUTTING ROLLER SKIS ON/OFF

**Classic skis** are easy to clip into because they balance on their own, like snow skis. But until you are comfortable on your roller skis, I recommend you place them on the surface you plan to ski, not on a driveway or sidewalk. If you do the latter, the first thing you have to do is step over a curb or make a sharp turn onto a road. The more stable the better right?

**Skate skis**, on the other hand, are a bit trickier because they don't balance on their own. Initially you might find the following helpful:

- Don't put your poles on until you are clipped into both your roller skis. Hold them together in one hand for support.
- Find a patch of grass adjacent to the road—grass will support your skis in the upright position, making it easier to mount (and dismount) them.
- With your free hand, hold either the front fender or speedreducer lever of the roller ski you are mounting so that it stays in place. Repeat for the opposite ski.
- Put your poles on after you've clipped into both skis.
- Dismounting, remove your poles, hold in one hand for support as you remove your boot from one binding, then other.

**Tip:** If you use Salomon Pilot bindings: They have a habit of not releasing without a bit of a shake with your foot. So release the latch and then standing with support from your poles, shake your foot free from the binding. Then the same for the other ski.

#### **LESSON TWO - DOUBLE POLING**

Double poling is an excellent way to start roller skiing. It gives you a perfect introduction to balance, speed, and tracking characteristics of your roller skis while rolling in a more stable position.

After some experimentation, combine double poling with some easy step turns (like you're switching tracks on snow skis) to get a feel for shifting your weight and steering.

**Tip:** Don't forget your 5 mm Allen key and Vise-Grip to adjust alignment when it is off.



Ultimate skate performance: XLQ98.

#### **LESSON THREE - FOR CLASSIC SKIERS**

After you are comfortable with double poling, try some lowenergy kick-and-glide on a slight incline (gentle inclines are the best surfaces for diagonal striding).

- Focus on your posture, technique, and use only light effort (important) this is ski school not a workout.
- Once you've got the hang of things, work in some kick/ double poling, but as before, light and easy.
- Finally, try your brake (fast stops and gradual slowing) and experiment with different speed-reducer settings.

In future sessions, work on switching from double poling to diagonal striding, to kick/double poling so that your transitions smooth out and feel easy and efficient.

**Tip:** Jenex classic roller skis provide perfect kick, a wonderful thing for sure. But with perfect kick you can also become lazy about the timing of your kicks, and as a result, kick too late, a habit you don't want to develop. Be sure to start your kick early when your foot is flat on the ski, not late when your heel has already lifted off the ski.

#### **LESSON THREE - FOR SKATE SKIERS**

Once you've established your balance with double poling, try some easy skating without your poles (hold them mid shaft).

- Next, start using your poles but continue to ski with low energy, easy and light.
- Focus on body position and smooth motions.
- Try some braking too (hard and easy) and experiment with different speed-reducer settings.

In future sessions, practice the different skate techniques individually and then switch from one to another as you would on snow.

#### **LESSON FOUR - TOLERANCES**

What size debris can I roll over? What dreck will stop me in my tracks? Good questions and the perfect next session. First, some rules of thumb

- For hard-tire roller skis, classic or skate, assume that debris the diameter of a No. 2 pencil or larger may cause the front wheel to skid to a stop. It depends somewhat on the speed you are rolling. For example, the slower you are rolling (less momentum), the smaller the debris that will cause skidding.
- For pneumatic-tire roller skis (the entire Aero series), assume that debris the diameter of your index finger or larger may cause the front wheel to skid to a stop. Again, it depends on speed.

**Climbing hills:** Be vigilant when climbing hills and other situations when rolling at slower speeds. With less momentum, No. 2 pencil-sized twigs or gravel are more likely to stop front wheels.

**The three nasties:** twigs, pine cones, and gravel. Watch for them and avoid if possible.

**Cracks in pavement aren't far behind.** Cracks, whether aligned perpendicular to your line of travel or roughly parallel to it, deserve your attention. If wide enough, either type will swallow your front wheel; if narrow, your pole ferrules may score the equivalent of a roller-ski wedgie and yank on your shoulder.

Always anticipate and be on the lookout. For all intents and purposes, this is the same attention to the trail ahead that snow skiing requires. Don't be intimated: stay alert.

- Know your route in advance so you can better anticipate debris-prone sections.
- Expect debris; scan for it at all times.
- When you spot some, avoid it if you can.
- If you can't, double pole over it. Double poling increases stability, gives you more recovery options, and lets you unweight your skis to help you roll over the debris.

## **Best of Luck!**

You've made a smart investment in your V2 roller skis. Their performance is unequaled.

Now you have the advantage of enjoying Nordic skiing year round. Tour for fun or train for competition, your V2 roller skis will take you far.

Comments? Suggestions? If you think of other topics you would like added to this guide (or ones you think need expanding), please let me know. Or perhaps you have a photograph of the perfect roller ski moment or a short story to tell, love to hear from you.

Here's to the perfect second season on V2! -<u>Doug Garfield</u>

About Doug

Before earning his doctorate in exercise physiology from Syracuse University, Doug rowed for the University of Toronto and for the Canadian National Rowing Team, and in winter, ski raced for Toronto.

After college teaching and research in physiology, Doug joined Cybex and later co-founded two exercise-equipment ventures. Today, he coaches Nordic skiers and is in his 21st year of convincing his MBA students that statistics are a beautiful thing.

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