I enjoy outdoor activities much more than going to a fitness center. As a below-knee amputee, for many years cross-country skiing was my favorite sport for burning calories and building cardiovascular fitness.

Jogging was the summer equivalent to cross-country skiing until researchers discovered that routine jogging can gradually damage your joints when doing it on a lifelong basis. Walking became the new fitness trend because it created less stress on the joints and back. Although I preferred jogging over walking as a summer sport, I started to feel the impact on my residual limb and other joints when I jogged on a regular schedule. But walking was never enough of a workout for me and it involved more time than I wanted to spend on a daily basis. Now I Nordic walk, and I love it!

I first learned about Nordic walking during a family visit to Germany 5 years ago. Most of my running buddies had converted to this new fitness trend, but I teased them about walking with two sticks, claiming it was a great exercise. However, wanting to be fair, I decided to try it for myself.

After my first lesson, I was so surprised about how much technique and skill this sport required that I decided to learn more about it. I started to use Nordic walking poles on hikes with my husband. It soon became obvious to us that this is a very engaging sport for anyone. And I discovered an unexpected benefit of Nordic walking for an amputee – suddenly, I could almost keep up with my husband, who is a strong and fast hiker. Since then, I have become an American Nordic Walking Association (ANWA) certified Nordic walking instructor, and I am very excited to share this new activity with any other amputees who are looking for a fun, complete body workout with little stress on their joints!

What Is Nordic Walking?
Nordic walking (also called ski walking or pole walking) has been called the fastest-growing outdoor fitness activity in the world. Today, about 5 million people in Europe use Nordic walking as their regular fitness activity (at least once a week), and the numbers are rising.

There are many reasons why Nordic walking is so popular and why it is an excellent fitness exercise and fun sport for people with lower-limb disabilities, particularly lower-limb loss.

Nordic walking is designed to fit the requirements of everyday life. It is a low-impact, high fat-burning, efficient, total body workout that can be enjoyed anytime, anywhere. It can use up to 40 percent more calories than just walking.

The primary difference between Nordic walking and other sports is that it involves as many muscles as possible, with the goal to burn as many calories as possible, with
less wear and tear on knee and hip joints.

Nordic walking is done with specially designed poles that have a unique wrist strap system attached to the pole. The poles are ideal workout tools for people with impaired balance, such as new amputees. They are used to push the body forward, which can, but doesn’t have to, increase the speed of the walk. This adds a significant upper-body and core workout to your walking exercise and lessens the pressure on your back, hips and legs. As a whole body workout, Nordic walking involves 90 percent of all body muscles. Most people have a smile on their face after the first few steps. In those moments, there are definitely more than 90 percent of all muscles involved!

**Technique**
Nordic walking requires much more practice than it might seem at first. To learn the technique, it’s best to start by walking normally, just carrying the poles. While ignoring the poles in your hands, you should swing your arms freely in the same diagonal move (opposite the feet), as in a normal walk. Like walking, every step should begin with the heel touching the ground first and then rolling forward to the ball and toe. As you walk with the poles in your hands, push off the opposite pole to propel yourself forward. To maximize the push and length of the pole, you need to open the hand as the hand is passing the hip. The push will stop when the arm is completely extended straight back.

The basics of Nordic walking technique are:
- Diagonal strides with legs and arms in a counterswing motion
- The upper body leaning slightly forward
- Longer strides with feet rolling from heel to toe
- Hands maintaining a “grip ‘n’ go” motion.
Equipment
Low cost is another compelling reason to choose Nordic walking as a regular fitness activity instead of a membership in a gym. Nordic walking poles are basically the only equipment you need. The poles come in either fixed or adjustable length. Fixed-length poles are generally lighter. The material can be either aluminum or different grades of composite material. Whichever poles you choose, for maximum benefit, they should be approximately 66 percent of your height. Adjustable poles can help you adapt to changes in terrain, your level of activity, and your height, which decreases slightly between morning and evening as gravity compresses your spinal discs.

The most distinctive differences from regular cross-country poles are the straps and the tips. The straps are designed to be used without gloves; some straps have unique features to fit different requirements. The tips on Nordic walking poles are shorter between the tip and basket (i.e., the removable disk used to keep the poles from sinking into sand, soft soil or snow), and the tips are wider to assist traction. The rubber tips, designed to absorb the shock when walking on stone or pavement, are removable. One German pole manufacturer includes a silent spike pad with miniature spikes in the small, detachable rubber tip for better grip and little noise. I recently started to use a pole that has these pads and is made out of modular carbon fiber with two telescopic adjustments for traveling.

Several sports shoe manufacturers produce shoes made specifically for Nordic walking, but for beginners on a budget, a decent running shoe with a good tread will do. Other equipment (such as clothes, water bottle, sunscreen or a heart rate monitor) is comparable to standard walking and hiking equipment.

Health Benefits
The fact that the health insurance system in Germany covers Nordic walking lessons as part of its preventive health plan supports the health benefits of Nordic walking for the average person. But the benefits for people with disabilities are outstanding!

People with lower-limb disabilities will profit tremendously from this new sport. The extra push with the poles helps to prevent overuse of the residual limb, and each step can be adjusted to a more equal gait. Because of the “four-wheel drive” mode, people feel more stable and balanced. The result is a more upright posture and a more normal gait pattern. By transferring weight to the poles, many large core and upper-body muscles get a perfect workout. My experience is that the ability to walk a longer distance or with a faster stride improves by about 30 percent. The psychological benefits are also obvious and no less important. Walking with Nordic walking poles is a fun activity that people can enjoy with friends and family, whereas the stigma of walking with a cane or crutches can be depressing and cumbersome for many people.

The complexity of Nordic walking should not be underestimated. It is highly recommended to take at least five to seven lessons from certified instructors to learn the proper technique and related strengthening, stretching and coordination exercises. Many variations of the technique are possible. Participants with different abilities can walk together with the same speed and still reach individual levels of intensity. They can also reach higher heart rate zones by choosing a more intense technique. Whether you’re alone, with a partner or in a group, it’s fun to go Nordic walking in the great outdoors!

Related Resource
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Reinhild Moeller has a Master’s Degree in Sports Science and Adapted PE from the University of Heidelberg. A native of Germany, she competed in seven Winter Paralympics and two Summer Paralympics, winning a total of 19 Paralympic gold medals. She and her husband Reed Robinson, a former U.S. Disabled Ski Team member and Paralympic medalist, enjoy outdoor adventures such as mountain biking, landsailing, motorcycling, skiing, hiking and, of course, Nordic walking.

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