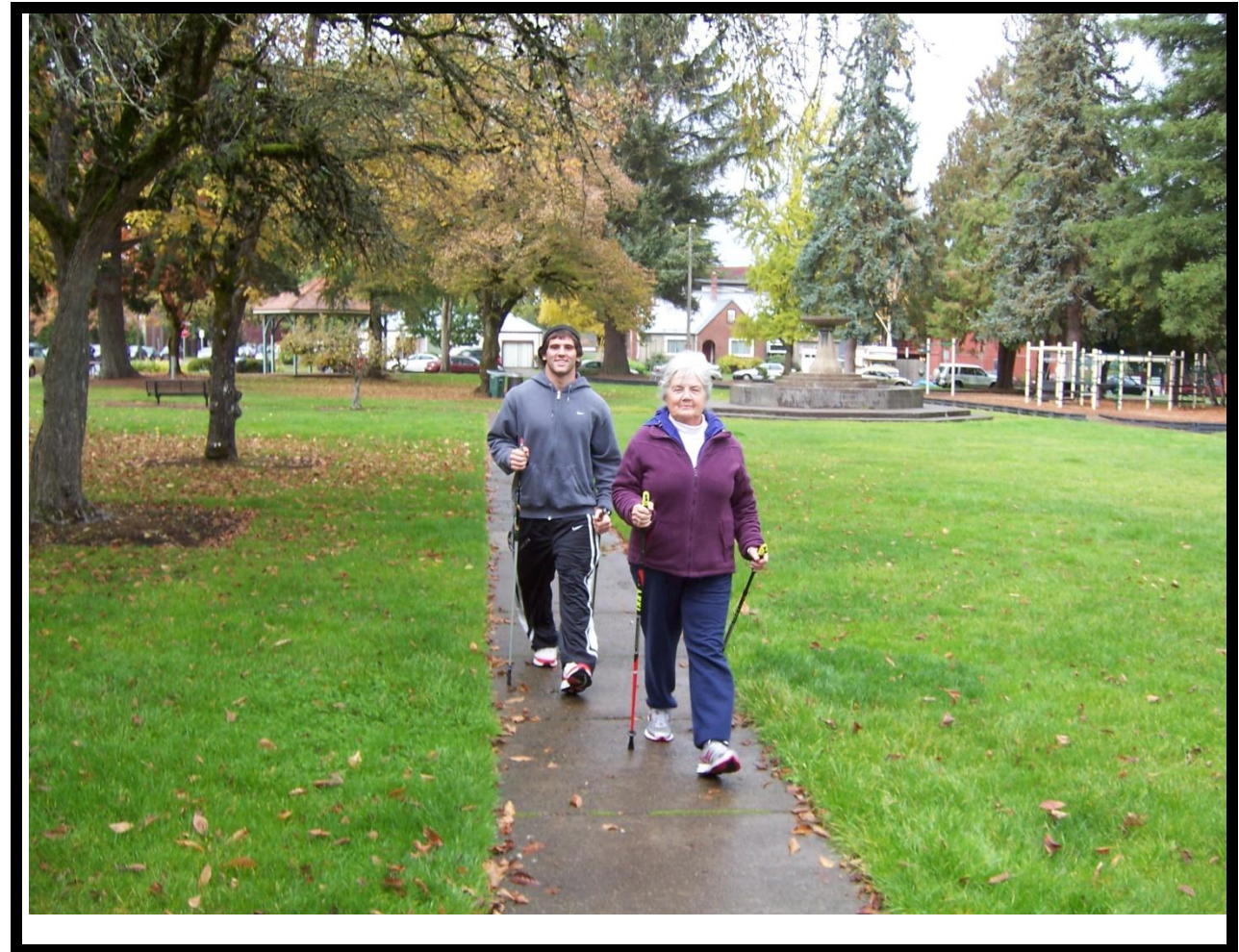


Nordic Walking: Four Wheel Drive to Fitness

SHAPE Convention Presentation - Seattle, WA; March, 2015



personal fitness trainer Casey Connor and his grandmother Ruth Connor

The most popular physical activity is walking . OK - so what is Nordic Walking? It is simply walking with poles. It is closely related to Nordic skiing, which as we know is an excellent aerobic activity. Nordic walking puts your body in four wheel drive rather than two. It is a simple way to overall health related fitness. It is your gym on the go – two poles and countless benefits. It is truly a lifetime activity.

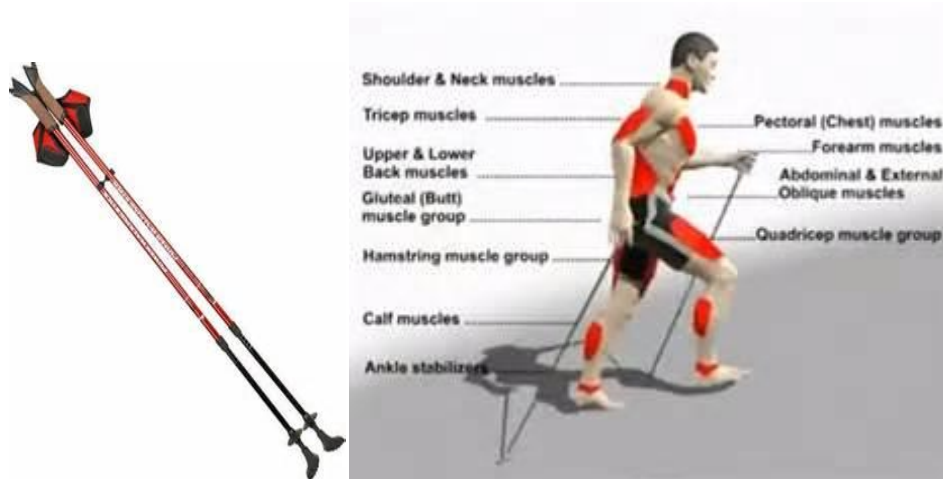
Benefits of Nordic Walking

Walking with poles adds physiological strain to regular walking in both fit and less fit individuals. The benefits of this easy to do activity include lowering LDL (bad) cholesterol, raising HDL (good) cholesterol, helping prevent type 2 diabetes, lowering blood pressure, increasing cardiovascular functionality, managing weight, and providing upper body resistances which developmentally stresses bones which can aid in preventing osteoporosis. With Nordic Walking you use 90% of your

body's muscles while increasing your heart rate significantly. Walking with poles improves mainly aerobic fitness and muscular endurance. It also decreases neck-shoulder area disabilities and pain, promotes mechanically sound walking mechanics, and can even have positive effects on mood state (how do you walk when you are happy?). Interesting stuff! (3,4)

In order to improve muscle power, uphill walking can be incorporated. That is readily accomplished as gains in fitness are garnered. According to research conducted at the Cooper Institute, "individuals who poled more intensely had higher oxygen consumption. There is potential for considerably more or less benefit depending on the selection of poling intensity. Nordic Walking will burn more calories, increase oxygen consumption, and can be up to 46% more effective than normal walking. This may have particular significance for individuals who need to increase caloric expenditure but have walking speed limitations. Increased caloric expenditure with no corresponding increase in perceived exertion (*interesting phenomena*) during Nordic walking may have important public health applications. The use of Nordic walking poles is particularly promising, as the poles provide stability that may promote physical activity among older individuals and those with orthopedic and balance concerns." (1)

The devastating long term postural orthopedic effects of "walkers" and the potential of Nordic walking for elderly population physical activity is currently being studied. The effect of this activity on gait retention (2) and improvement is also being studied.. So what are we waiting for? Nordic walking – so easy, so effective! **Shift to four wheel drive!**



Equipment:

Nordic walking poles are manufactured by a variety of distributors. Internet sources are readily available. The retail cost can range from approximately twenty dollars to as high two hundred dollars. For starters, a set of used ski poles can be modified and utilized. Basically, you get what you pay for in quality, durability and ease of use. Poles can be of fixed length or can be adjustable. There are obvious advantages each type. Straps vary in quality and functionality from basic ski straps to more effective, specialized arrangements which cradle the hand. Straps are important as the grip on the pole is released during a good part of the poling movement allowing circulation to occur. A variety of replaceable "feet" are available to aid in traction on varied surfaces, as like automobile tires, they do wear out.

Getting Started:

Let's get started! Here is a **Teaching Progression for Introducing Nordic Walking**.

1. Adjust or select a pole so that when it is held upright the forearm angles just slightly downward from parallel with the ground. With the Nordic walking poles strapped on, the fingers loose (don't squeeze the pole grips), the arms relaxed and down at your side and the poles angled back – start walking without moving your arms - let them hang straight down at your side. Let the pole tips drag along the ground.
2. Now, start to gradually swing your arms in opposition just like you would while casually walking. Continue to let the pole tips drag. Keep the fingers loose.
3. Next, with poles angled back, start to push back on the poles entirely by using the strap – gradually release your grip after the plant. Let your hands push down through the straps to help you push off the ground and propel yourself along. Feel the pressure of the strap on the heel of your hand. Work for full extension of the elbow and adjust gait accordingly. Continue to drag the pole tips on recovery to the plant position. You should feel the developmental stress being applied to the shoulder girdle and arms.
4. Finally, continue to keep your fingers relaxed by not squeezing the poles tightly after planting and stop dragging the rubber tips on the ground. The lead pole tip never goes further ahead than the opposing lead foot's heel and the poles are slightly angled back. ***This is a crucial teaching point!*** The motion isn't out in front, except for balance when negotiating challenging terrain or a steep downhill. Intensity can be added by pushing the pole into the ground and pushing harder through the movement as the elbow extends and/or by walking up hills. (3,4)

Some final thoughts:

A traditional walking program requires supplemental upper body work in a well rounded fitness program. Nordic walking adds an upper body dimension by shifting from two wheel to four wheel drive. Physiological response is compounded!

Nordic Walking is extremely popular in Europe and **needs to be promoted** in North America. There are numerous outstanding free online materials which you can use to gain further information on this interesting topic. In the author's experience, the activity is well received by high school and college students, at least at the exposure level. They are pleasantly surprised by the physiological response that this activity provides. The activity, in advanced forms (which are available on the internet), is also utilized in the off season training of elite Nordic skiers and I feel has great potential in training track athletes.

Give Nordic Walking a try, you will probably be approached by passersby's with some smiles and occasionally interesting queries like "Did you forget your skis?", or "Where's the snow?" Perhaps you can use this opportunity, as I do, to initiate a conversation about the benefits of this remarkable, easy to do, inexpensive, readily accessible activity.

1. T. Church, C. Earnest, G. Morss at The Cooper Institute, RQES, vol 73, No.3, pp. 296-300, September 2002
2. S Figueiredo, L Finch, M Jiali, S Ahmed, A Huang, and NE Mayo (Canadian Physiotherapy Association), Nordic walking for geriatric rehabilitation: A randomized pilot trial, May 2010
3. www.leki.com
4. www.skiwalking.com



Why Not Four Wheel Drive?