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3 465 Nordic Walking: So Easy—So Effective

4 Friday, April 26, 2013: 7:30 AM-8:30 AM

5 Convention Center: 217D

6 AAPAR/Fitness & Wellness Council

Speaker: Bill Connor, University of Montana Western, Dillon, MT

7 This informational and participatory session will focus on the tremendous potential of Nordic walking as a lifetime
8 fitness activity, which can be easily introduced in the school or recreational setting. The program will examine the
9 equipment and an easy-to-learn progression sequence, along with a quick overview of the multitude of
10 physiological and psychological benefits of the activity. Come learn about, and try, this great activity.



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13 **Casey Connor (Physical Education Major at Western Oregon University) Nordic Walking with his**
14 **grandmother, Ruth Connor**

15 **What is Nordic Walking?**

16 Nordic walking is an easy to do activity that has a multitude of health related fitness benefits. It is
17 simply walking with poles. It is closely related to Nordic skiing, which we know is an excellent aerobic
18 activity. Its historical roots, which go back to early twentieth century Scandinavia, lie in off season
19 training for competitive Nordic skiers. More recently, it has become a popular fitness activity for all ages,
20 particularly in Europe. It is truly a lifetime activity.

21 **Benefits of Nordic Walking**

22 Based on solid research as summarized by Downer (Downer, 2006), “Nordic walking has been shown to
23 provide many health and fitness benefits. This unique and increasingly popular form of exercise has
24 many advantages, both for healthy and fit individuals who want to increase their workouts and gain
25 additional cardiovascular benefits as well as for those with medical conditions that restrict them from
26 jogging or running.” Briefly, walking with poles adds physiological stress to regular walking in both fit
27 and less fit individuals. Walking with poles improves mainly aerobic fitness and muscular endurance.
28 Specifically Nordic walking is effective in increasing cardiovascular functionality, managing weight, and
29 providing upper body resistances which developmentally stresses muscles and bones which can aid in
30 preventing osteoporosis. Nordic walking also decreases neck-shoulder area disabilities and pain,
31 promotes mechanically sound walking mechanics, and can even have positive effects on mood state
32 (how do you walk when you are happy?).

33 The Cooper Institute in Texas compared Nordic walking with regular walking (Church, 2002). The caloric
34 expenditure and the oxygen consumption increase on an average was 20%, and the heart rate increase

35 with about 10 beats per minute when using the Nordic walking poles. Some individuals increased as
36 much as 46% in oxygen consumption and just about the same in caloric expenditure. The interesting
37 thing is that even through the body works harder using the poles, the RPE (rated perceived exertion)
38 was the same walking with or without poles. Increased caloric expenditure with no corresponding
39 increase in perceived exertion may have important public health applications. Individuals who poled
40 more intensely had higher oxygen consumption. There is potential for considerably more or less benefit
41 depending on the selection of poling intensity. This may have particular significance for individuals who
42 need to increase caloric expenditure but have walking speed limitations.

43 I was recently approached while Nordic walking in a mall by a physical therapist about the potential of
44 Nordic walking for elderly population physical activity and the devastating long term postural
45 orthopedic effects of “walkers”. I believe the use of Nordic walking poles is particularly promising for
46 elderly populations, as the poles provide the stability that can promote physical activity among older
47 individuals with gait, orthopedic and balance concerns.

48 **Equipment:**

49 Nordic walking poles are manufactured by a variety of distributors. The retail cost can range from
50 approximately twenty dollars to as high as two hundred dollars. For starters, a set of used ski poles can
51 be modified and utilized. Basically, you get what you pay for in quality, durability and ease of use. Poles
52 can be of fixed length or can be adjustable. There are obvious durability advantages to each type;
53 however, in a setting where the poles are used by multiple populations, adjustable poles eliminate the
54 sizing issue. Pole length should be just short of elbow height when the pole is gripped and planted
55 vertically.

56 Straps vary in quality and functionality from basic ski straps to far more effective, specialized
57 arrangements which cradle the hand. Straps are important as the grip on the pole is released during a

58 good part of the poling movement allowing circulation to occur. A variety of replaceable “feet” are
59 available to aid in traction on varied surfaces, as like automobile tires, they do wear out.

60 **Getting Started:**

61 Let’s get started. Here is a teaching progression for introducing Nordic Walking that has proved to be
62 effective.

63 1. Adjust or select a pole so that when it is held upright the forearm angles just slightly downward from
64 parallel with the ground. With the Nordic walking poles strapped on, the fingers loose (don’t squeeze
65 the pole grips), the arms relaxed and down at your side and the poles angled back – start walking
66 without moving your arms - let them hang straight down at your side. Let the pole tips drag along the
67 ground.

68 2. Now, start to gradually swing your arms just like you would while casually walking. Emphasize basic
69 walking technique using cues such as: arm swing, opposition, erect posture, heel- toe technique and
70 knee lock. Continue to let the pole tips drag. Keep the fingers loose.

71 3. Next, with poles angled back, start to push back on the poles – gripping then gradually releasing your
72 grip after the plant. Let your hands push down through the straps to help you push off the ground and
73 propel yourself along. Work for full extension of the elbow and adjust gait accordingly. Continue to drag
74 the pole tips on recovery to the plant position just ahead of the lead heel. You should feel the
75 developmental stress being applied to the shoulder girdle and arms.

76 4. Finally, continue to keep your fingers relaxed by not squeezing the poles after planting and stop
77 dragging the rubber tips on the ground. The lead pole tip never goes further ahead than the opposing
78 lead foot’s heel and the poles are angled slightly back. This is a crucial teaching point! The motion isn’t
79 out in front, except for balance when negotiating challenging terrain or a steep downhill. Intensity can

80 be added by punching the pole into the ground and pushing harder through the movement as the elbow
81 extends and/or by walking up hills.

82 **Some final thoughts:**

83 A traditional walking program requires supplemental upper body work in a well rounded fitness
84 program. Nordic walking adds an upper body dimension. Physiological response is compounded.

85 As mentioned, Nordic walking is extremely popular in Europe but needs to be promoted in North
86 America. It meets the criteria for lifetime physical activity, which include (Pangrazi, 2010): 1) potential
87 for participating at varied intensities 2) can be done alone or with others 3) does not require extensive
88 amounts of equipment 4) does not require a membership 5) does not require a specific playing field or
89 surface.

90 In my experience, the activity is well received by high school, college students and adults. They are
91 pleasantly surprised by the physiological response that this activity provides, as I was the first time I
92 tried it. The activity is developmentally appropriate for elementary children after mature walking form
93 is developed and mastered, and it gives an added dimension to school walking programs including those
94 using pedometers. It can be an activity of choice for overweight students starting at the upper
95 elementary and secondary level (Pangrazi, 2010).

96 Part of the attraction of walking and Nordic walking is in the variety of interesting locations it can be
97 practiced in, and the potential for collaboration with other academic areas in the school setting exists.

98 Well grounded walking programs are readily available for populations ranging from elementary to
99 mature populations (Pangrazi, 2010, www.walk4life.com, www.thewalkingsite.com), and the results can
100 certainly be enhanced through the use of Nordic walking poles. As the perceived exertion of the activity
101 is no greater than regular walking, durations of activity are similar. The benefits, however, are greatly

102 enhanced. There are numerous outstanding free online materials which you can use to gain further
103 information on this interesting topic (www.leki.com , www.nordicwalking.co.uk) www.skiwalking.com).

104 If you give Nordic Walking a try, you will probably be approached by passersby's with some smiles and
105 interesting queries like "Did you forget your skis?", or "Where's the snow?" Perhaps you can use this
106 opportunity to initiate a conversation about the benefits of this remarkable, easy to do, inexpensive,
107 readily accessible activity. Try it – you will like it! Pass it on!

108 References:

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