



# Step Conversions

Increasing frequency and duration of physical activity for improved health is the ultimate goal of a walking program. Some walking program participants may find distances (miles) covered to be fun and motivating. For distance-based walking programs where people track progress to a destination, we recommend using an average of 2,000 steps per mile for simplicity.

However, some people prefer a more accurate way to determine distances and or a way to count other non-walking physical activities. In these cases, the charts below may be helpful.

## Steps-to-Distance Conversion Chart

Below is an estimated steps-to-distance conversion. While distance varies for each individual depending on stride length, this chart uses an average 32" stride length.

STEPS	MILES	KM		STEPS	MILES	KM
500	.25	.40		5500	2.75	4.43
1000	.50	.80		6000	3.00	4.83
1500	.75	1.21		6500	3.25	5.23
2000	1.00	1.61		7000	3.50	5.63
2500	1.25	2.01		7500	3.75	6.03
3000	1.50	2.41		8000	4.00	6.44
3500	1.75	2.82		8500	4.25	6.84
4000	2.00	3.22		9000	4.50	7.24
4500	2.25	3.62		9500	4.75	7.64
5000	2.50	4.02		10000	5.00	8.05

Source: 10-K-A-Day Walking Incentives Pedometer Tips, Los Alamos National Laboratory Wellness Center, [www.wellness.lanl.gov/svc/motive/10k/pedtips.htm](http://www.wellness.lanl.gov/svc/motive/10k/pedtips.htm). Accessed March 15, 2004.

## Stride Length Conversions

The actual number of steps required for an individual to walk a mile varies by stride length. Stride length varies person to person and even with walking speed. To obtain an average stride length for an individual, try the *water dance*.

Find a sidewalk and puddle of water. Or make a small puddle by pouring water on the sidewalk. Get the bottom of your shoes wet. Walk 8 to 10 paces away from the puddle at a normal to brisk pace. While the footprints are still wet, measure from heel strike of one foot to the heel strike of the other foot. Take 3 to 4 measurements and average them.

### Converting Footsteps to Miles

Step Length	Number of Footsteps to Walk a Mile
18"	3520
21"	3017
24"	2640
27"	2347
30"	2112
33"	1920
36"	1760
39"	1625

Source: Sweetgall, Robert; *Pedometer Walking*; Clayton, Missouri: Creative Walking, Inc. 2001.

## Activity Conversions

If you are adding up steps and miles to better health, include a variety of activities in addition to walking. Below is a conversion chart from *Shape Up Across Colorado* based on Dr. Gunnar Borg's perceived exertion (RPE) scales. The intensity of the activity is key to determining into which category it will fall.

Lifestyle/Light Physical Activity: 30 minutes = 1 mile

baseball, canoeing, croquet, yard work, fishing, golf (with cart),  
gymnastics, table tennis (ping-pong), volleyball (recreational), gardening,  
housework

Moderate Intensity Physical Activity: 15 minutes = 1 mile

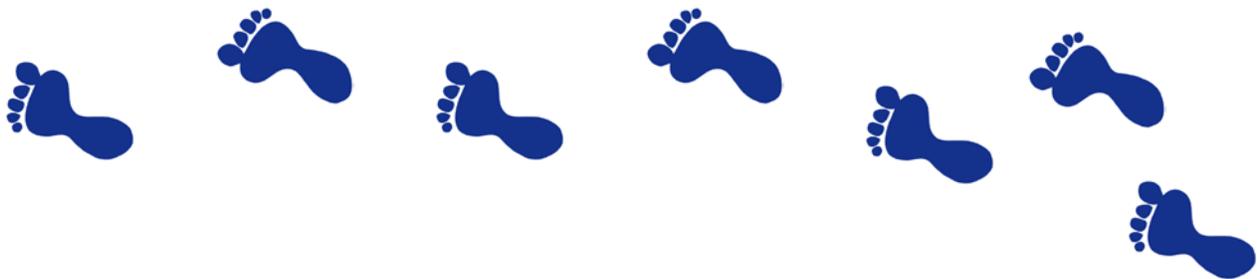
aerobic dancing, badminton, bowling, bicycling (leisure), calisthenics, canoeing (for speed), football, golf (no cart), hiking, horseback riding (general), jogging, rollerblading, skating (recreational), downhill skiing, tennis, walking (normal pace)

Vigorous Intensity Physical Activity: 15 minutes = 2 miles

aerobic exercise, basketball, bicycling (racing), circuit weight training, hiking (40 lb pack), horseback riding (galloping, jumping), ice/field hockey, rope skipping, racquet/paddle/handball, cross-country running, cross-country skiing, shoveling snow, speed skating, snowshoeing, soccer, squash, volleyball (power), walking (race), wheelchair (1 mile = 3 miles walking), stationary bicycle, stair stepping, chopping wood

Note: You can find many different ways to convert physical activities to steps. What is important is to find one conversion method and focus on the increase over time.

Source: Shape Up Across Colorado Activity Chart, 3/29/04.



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