

TROUBLESHOOTING PEDOMETER ISSUES

Steprek wants to make sure your pedometers perform satisfactorily. Many issues may be resolved by taking time to understand the correct operation, use, as well as the limitations of what pedometers can and cannot do. All Steptrek pedometers are tested prior to shipping. If you feel your pedometer is not working correctly, choose on the description below which best describes your issue.

TOPICS:

- 1. The step count does not match the number of steps I take, either fast or slow.**
- 2. The distance walked, calories burned, or other measurements are not accurate.**
- 3. The digital display does not show. The screen is blank.**
- 4. My pedometer keeps resetting to 0 or 00000.**
- 5. When I walk with someone, the step counts are different on each of our pedometers.**
- 6. My pedometer counts movement other than just steps I take.**
- 7. How do I test a pedometer for accuracy?**

1. The step count does not match the number of steps I take, either fast or slow.

Pedometers are designed to be worn on the waist and detect HIP MOVEMENT by use of a PENDULUM inside each pedometer. When the pedometer is used correctly, each time the pendulum makes contact with a sensor, a step is added to the digital display.

A. IS THE PEDOMETER PLACED CORRECTLY ON YOUR WAIST?

Pedometers must remain vertical and parallel to the body while walking. If the top of a pedometer is tilted outward (more common in heavier people or those wearing a pedometer low on the waistline) the pendulum may not swing freely, and may not count the number of steps taken. If the pedometer is tilted instead of horizontal on the waistline, the pendulum may not count the number of steps taken. It is easy to accidentally bump a pedometer with the inside of the arm while walking and not realize it. Walkers should occasionally check their pedometer to make sure it is in the correct position.

Additionally, moving a pedometer a few inches to the left or right on the waistline can affect the number of steps counted. Most people find a pedometer works best placed on the right side, over the hip bone, straight up from the knee. Others, because of the way their hips swing, find more accuracy with the pedometer out to the side, along the line where the arm falls straight down. Everyone has a unique stride, so each person must find the position that is most accurate for them.

B. ARE YOU WALKING A STEADY EVEN PACE?

For greater accuracy, walk at a comfortable, steady pace for a period of time without multiple starts, stops, abrupt turns, or other changes in stride. This is true with any pedometer model. (More expensive models may claim to be able to distinguish actual steps vs unintended movement, but the reliability is questionable.) The numbers on your pedometer display may not always match the number of steps you've actually taken if you make these kinds of movements, but your pedometer will still be very close to the actual number of steps you've taken. Just as the clearer you speak, the easier it is for people to understand you, the clearer your movements are when walking, the easier it is for your pedometer to correctly count each step you take. TIP: Pedometers studied have been shown to be more accurate walking at about 3.5 mph than a slower pace of 2.5 mph.

C. ARE YOU WEARING THE RIGHT KIND OF CLOTHING?

Clothing material that is too thin may cause a pedometer to tilt or move and count inaccurately, or fall off the waistband more easily. Do not attach to loose or hanging clothing, or parts of the clothing that shift or slide when you step. A pedometer is most accurate when placed at the widest part of the waist, where it will hang vertically. Low hanging pants may cause the pedometer to tilt, leading to inaccurate readings.

D. ARE YOU WEARING YOUR PEDOMETER WHEN YOU'RE NOT WALKING?

All pedometer models are accurate counting the number of steps taken over an entire day, such as for 10,000 step programs. For greater accuracy and longer pedometer life, we recommend using your pedometer as a measuring tool to be used when engaged in the activity of walking, and removed while not walking.

Although you may choose to wear your pedometer all day, here are 3 reasons we recommend removing a pedometer when you're not walking.

GREATER ACCURACY. Other types of movement, such as sitting and standing, wiggling around in a chair, shuffling in place, etc. may / may not be detected by the pedometer and could result in inaccurate count totals.

LONGER CLIP LIFE. Frequent bending or turning at the waist, such as sitting and standing, can put added stress on the pedometer clip. This may cause the clip to stretch at the point where it attaches to the pedometer, and eventually break.

LONGER PEDOMETER LIFE. A pedometer is more likely to accidentally fall off or be bumped off during non-walking activities, ie: table edges or arms on office chairs can knock a pedometer off the waist. Remember, pedometers contain sensitive electronics, which may be affected by the shock of bumping or dropping. Steptrek is not liable for pedometers broken from falling. Since examples like these are more likely to occur during non-walking activities, it is generally recommended pedometers are removed when not walking. Additionally, if the function buttons are on the face of your pedometer, some of these movements may inadvertently cause the user to press the reset or other buttons.

E. ARE YOU READING THE CORRECT DISPLAY MODE? (MULTIFUNCTION MODELS)

Depending on the model, multifunction models have some type of indicator to let the walker know which MODE the pedometer is displaying (such as STEPS, DISTANCE, CALORIES) Some models display those names, or an abbreviation. Others will show arrows pointing to the word. Be sure the pedometer is in STEPS mode.

If, while wearing the pedometer correctly, the display goes up multiple numbers with a single step, or counts slowly, then the pedometer is not working correctly and is considered defective.

2. The distance walked, calories burned, or other measurements are not accurate.

If your pedometer is a multifunction model, the distance walked, calories burned, and other measurements are calculated based on the number of steps taken. Some, but not all multifunction models allow you to program your individual stride and/or weight for more accurate measurements such as distance walked and calories burned. All multifunction models have built-in DEFAULT measurements if custom measurements are not programmed into the pedometer, giving the user a general estimate of those measurements.

3. The digital display does not show. The screen is blank.

A. DOES YOUR PEDOMETER HAVE A SLEEP FUNCTION?

Some pedometer models have a sleep function to save battery power. The sleep function also acts as a way to keep the pedometer from counting while the user is sitting or standing still. When no movement is detected, usually about a minute, the display shuts off. When movement is detected, the pedometer display will come back on and continue to count steps. The display may not wake up instantly depending on model. **DO NOT PRESS THE RESET BUTTON TO WAKE THE PEDOMETER UNLESS YOU ALSO WANT TO SET DISPLAY TO 0.** If the pedometer does not wake up, tap the side of the side of the case with your finger, and the display will show.

B. DOES THE PEDOMETER HAVE A BATTERY TAB?

If your pedometer model came with a tab under the battery, it may not have been removed. Check for a small piece of plastic sticking out of the side of the case. If the tab was removed and the display does not show, a piece of the tab may still be under the battery. Depending on your model, you may be able to remove a panel or battery door and remove the battery. Some models require a small phillips screwdriver to access the battery.

C. DID THE PEDOMETER GET COLD OR HOT?

Exposing the display to extreme heat and direct sunlight, such as on the dashboard of a car, may cause the display to go out. The display will return to normal once cooled. In extremely cold weather, the pedometer display may also go out. Allow the pedometer to warm up to room temperature before using again. If your pedometer display doesn't show numbers or is frozen, remove the battery from the pedometer and re-insert. Make sure the plus side (+) of the battery is facing upward. Depending on the model and features, you may have to re-program your custom measurements into the memory. See the instruction manual for your pedometer.

Some pedometer models may have a RESET button on the front or back of the pedometer. The RESET button is usually recessed to prevent accidental reset. Use a pencil tip, paper clip or similar device to press the button.

IF NOTHING ELSE WORKS, THE BATTERY IS PROBABLY DEPLETED.

Pedometer batteries typically last 1 year or longer. In rare instances a new battery may become discharged. Replace with the same battery and recycle the old one.

4. My pedometers keep resetting to 0 OR 00000.

A. DOES YOUR PEDOMETER HAVE A "SLEEP" FUNCTION?

To let the pedometer battery last as long as possible, some models have a "sleep" function. The display will go blank on purpose. If you press the button to make the display appear, it will also reset your count to 0. DO NOT PRESS BUTTONS to wake a pedometer unless you want to reset the display. To make the display appear, simply start walking. Or, if you are holding the pedometer in your hand, shake it gently to wake it up.

B. ARE YOU INADVERTENTLY PRESSING THE RESET BUTTON WHILE WALKING?

Depending on the position of the pedometer on your waist, the location of the buttons on the pedometer, and how you swing your arms when you walk, it's possible to inadvertently bump the RESET or other button on some pedometer models. This is less likely to happen with clamshell style pedometers, as the buttons are covered while walking.

C. IS ANY CLOTHING RUBBING OR PRESSING AGAINST THE PEDOMETER?

Coats, jackets, heavy clothing pressed against a pedometer's buttons may cause it to reset.

D. COULD YOU BE PRESSING BUTTONS WHILE YOU ARE NOT WALKING?

Buttons may also be accidentally pressed in certain situations while not walking. Here are several examples: Leaning over while taking a seat, or bending over to tie a shoelace can press the pedometer against the thigh, accidentally pressing the button. A person who wears their pedometer closer to the front of their body than the side may be more likely to press a button this way. The pedometer may also be pressed against a steering wheel or seat belt if worn in a vehicle. The more overweight a person is, the more likely this could also happen. Children tend to lean against table edges, counters, etc, and are more likely to lay on their stomach or side. This may cause the pedometer to reset.

For these reasons, we always recommend a pedometer be used as a tool to be worn while you are walking, and taken off when you are not.

5. When I walk with someone, the step counts are different on our pedometers.

Two different people, walking an identical distance, typically will have two different step counts on the pedometer display. There are several reasons for this:

A. DIFFERENT PEOPLE HAVE DIFFERENT STRIDE LENGTHS.

The shorter your stride length, the more steps it will take to cover the same distance as someone with a longer stride length. It is unlikely two people walking the same distance will have the same number of steps.

B. DIFFERENT PEOPLE HAVE DIFFERENT WALKING STYLES.

Some people start out more slowly or quickly than others. First and last step(s) may or may not be counted depending on how quickly they start or stop. Some people, especially children, tend to move more while standing in place, which could add to the step count.

C. DIFFERENT PEOPLE SIT DIFFERENTLY, AND THE PEDOMETER MAY OR MAY NOT COUNT.

Two different pedometers may not count the same while sitting or engaging in other non-walking activities. Some models may interpret certain movements as a step, others may not. The comparative body shapes of the two people has a factor in this also, as well as each person's posture. A pedometer may not be accurate if it is tilted at an angle, or if the case leans forward. If you are comparing two different kinds of pedometers, each model may have slightly different sensitivity tolerances, causing one model to count when sitting compared to another model.

D. PEDOMETERS HAVE A RANGE OF ACCURACY.

Most pedometers have a range of accuracy, typically + or - 5%. That is, in taking 100 steps, the display should read from between 95 to 105 steps. Most pedometers fit this tolerance range.

If you want to compare two different pedometers for accuracy, the most accurate way is for one person to test both of them. See below on HOW TO TEST YOUR PEDOMETER FOR ACCURACY.

6. When I walk on a treadmill or elliptical, the step counts don't match those on the pedometer.

Comparing counts on a treadmill or elliptical is not a reliable way to check for pedometer accuracy. Pedometers use a pendulum to detect hip movement caused by foot contact with the ground. Treadmills measure steps by one of several methods. A programmable treadmill lets you enter stride length. When

you walk, the treadmill counts wheel rotations and calculates the total based on stride length programmed in. While this is fairly accurate, a walker's steps vary with each step and may not all be the same length over time. Also, as an example, say the walker programs in a stride of 25" but their typical stride length is actually 30" on a treadmill, for every six steps, the counter will estimate only 5 steps were taken.

A treadmill is also a moving surface. A pedometer may or may not detect hip movement compared to walking on a non-moving surface. Some treadmills are cushioned to reduce impact on the feet, which may also affect step counts on a pedometer.

Elipticals may not read the correct step counts either. Pedometers are calibrated to measure the specific motion of walking. Movement in an elliptical manner is a different type of movement than walking, and may or may not count on a pedometer. This is also why pedometers are generally not accurate while riding a bicycle.

Treadmills, ellipticals and other devices also need to be recalibrated occasionally for accuracy. Home equipment is not likely to be maintained in this way. Commercial fitness equipment may be more likely to be checked for accuracy.

7. My pedometer counts movement other than steps.

A pedometer is designed to detect hip movement while walking. However, it may also count other types of movement.

A. IT COUNTS WHILE I STAND IN PLACE.

Depending on how a person stands, their movements may be interpreted as a step, such as bouncing up and down, twisting or turning, rocking back and forth. This is more likely in school age children. This type of movement burns a similar amount of calories that each step will, so if someone is making enough of a movement while standing in place to get the pedometer to count the movement, it is equal to taking the same number of steps.

B. SHAKING A PEDOMETER

If you shake a pedometer in your hand, it will count. Some models claim to only count steps, but all models, from the least to most expensive, will add to the step count if shaken in a way that imitates hip movement. Pedometers have computer chips in them, but they aren't smart enough to tell if someone is trying to cheat. If someone chooses to cheat by shaking the pedometer, this is not a pedometer-based issue, but a user-based issue, and happens from time to time. We hear this more often from schools, and we always recommend users walk in pairs or groups if cheating is an issue.

8. My pedometer resets to zero.

A. ARE YOU WEARING THE PEDOMETER CORRECTLY?

Sometimes users will discover their pedometer display appears to have "reset itself". However, a pedometer does not have the ability to reset itself. Walkers inexperienced with a particular model are more likely to report resetting of their pedometers. Make sure the buttons of the pedometer are not being pressed by clothing, jewelry, or accidentally bumping with the hand.

Unless a pedometer is specifically a 3-D accelerometer, it is not recommended to wear in the pocket. Wearing a pedometer in the pocket may accidentally rest the display. Pendulum-based pedometers are designed to be worn on the hip and must be positioned properly to count correctly. See your pedometer instructions for proper pedometer positioning.

B. ARE YOU WEARING THE PEDOMETER WHEN YOU ARE NOT WALKING?

Although designed to be worn while not engaged in walking activity, some pedometer models are more prone to accidental resetting. Pedometers which have exposed buttons on the face or on a side can be accidentally bumped while sitting. Similarly, the buttons can be accidentally pressed against arms on chairs, your elbow or hand, or leaning over while sitting.

Depending on individual body shape and weight, the pedometer design, and how the pedometer is worn on clothing, pedometer buttons can be pressed by the underside of the stomach or against the thigh while a person is seated.

C. ARE YOU PRESSING ON THE PEDOMETER WITH EXCESSIVE PRESSURE?

There are many different pedometer designs with differently designed electronics. Depending on the model,

pressing hard on the face of the pedometer, or squeezing the pedometer can cause the electronics to malfunction or the battery leads to separate. When the pressure is stopped, the battery will engage the battery leads, and the display will be reset to zero. Remember, pedometers are sensitive electronic instruments. Avoid excessive pressure on the face or sides of your pedometer.

D. It's possible there is a malfunction in an individual pedometer, but pedometers generally should not reset by themselves.

9. How to test your pedometer for accuracy.

The proper way to check on the step count accuracy of any model pedometer: 1) Put the pedometer on and make sure it is adjusted properly according to instructions. 2) Press the reset button to set the display to 0 (or 00000).3) Take 25 evenly paced, steady steps. If the display reads more than 26 or below 24 steps, move the pedometer to the left or right on the waist a few inches. This changes the sensitivity of the pendulum slightly. Make certain your pedometer is also level horizontally. Then take 25 steps again to re-test.

Note that depending on your individual gait, the pedometer may or may not read your first or last step when starting up or stopping. Your pedometer may not record sharp turns or abrupt movements. It may record exaggerated movements as more than one step. Pedometers always work best while walking at a steady, even pace. It is a good idea to recheck the position of your pedometer regularly to ensure it is level horizontally.

COMPARING TWO OR MORE PEDOMETERS.

Comparing two different models on two different people is not an accurate way of comparing pedometer accuracy. To compare one model to another model, the same person should repeat the same steps with both models, walking at the same pace, and adjusting each until most accurate. Because the stride, weight, gait and body shape of each person is unique, each pedometer has to be adjusted to fit the individual, and continually checked to make sure it is always level.

All other pedometer measurements on multifunction pedometers are based on step counts. If other measurements, such as distance walked and / or calories burned are different on two different multifunction pedometers, the custom measurements which have been programmed into each model may be different. This will give different results, even if worn by the same person.