

# the **CrossFit** JOURNAL ARTICLES

## Cartwheel - An In-Depth Discussion

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The cartwheel is a foundational movement critical for gymnastics development. For non-gymnasts as well, practicing cartwheels develops kinesthetic awareness and flexibility, as well as strength and stability in hand support. Learning a cartwheel can be difficult for some, but the progressions below can be used by anyone, including the young and the not so young, to work toward a cartwheel.

### Definitions

A “right” cartwheel begins with the right leg forward, with the right hand the first to contact the ground. A “left” cartwheel leads with left the foot, with the left hand contacting the ground first. (Note that a “right” cartwheel is a left-twisting skill. A left twist is one in

which the left shoulder travels backward relative to the body in motion.)

### First Drill

This drill teaches the basic movement of a cartwheel and helps mitigate many common beginners’ mistakes. Place a folded panel mat or other stable object in the tumbling area. Stand in a straddle at the end of the panel mat and place both hands on the panel mat. Jump from one foot to the other, keeping weight on your hands. As you feel more comfortable, kick the jump higher and pass through a straddled handstand. Ensure that your shoulders remain open and your head stays neutral throughout this exercise.



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### Second Drill

At the end of the panel mat, begin in a lunge so that the line of your movement will be perpendicular to the panel mat and the foot closest to the panel mat is forward. Perform a cartwheel over the panel mat. This drill gives visual cues for hand and foot placement. It also makes the overall motion easier by giving you a higher platform to stand up from. Be sure to practice both right and

left cartwheels. One side will feel more comfortable and natural, but it is important to be competent on both sides.



### Side Cartwheel

Start this drill by standing in a straddle with your hips and shoulders in line with your intended travel direction. Lift both arms above your head. Turn your hands inward so that if you were to bring them together your thumbs and index fingers would form a diamond. Your feet should be turned out slightly. Execute a cartwheel by first bending your lead leg. Then, while reaching for the floor, kick your trailing leg as your lead leg leaves the ground. Do not swing, circle or otherwise flail your trailing arm; simply reach into the cartwheel. All of the power of the initiation comes from your legs. As the cartwheel completes, do not lift your hands off the floor; instead, push the floor away from your hands.

This is an important distinction for the development of a powerful and functional cartwheel.

Once your side cartwheel is consistent you can perform a series of side cartwheels across the floor. Bend your knees and pass through a wide stance partial squat in between each cartwheel to maximize turnover and speed. As you develop competence, you will be able to accelerate across the floor.





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### Lunge-to-Lunge Cartwheel

Start this drill in a forward lunge so that your hips and shoulders are perpendicular to your intended travel direction. Your arms should begin this drill extended overhead and positioned by your ears, with your shoulders completely open. Hands will again be turned in as they were for the side cartwheel. Kick into the cartwheel while reaching forward. Be sure that your hands contact the floor separately, one at a time. The line between your wrists and your rear leg should remain as straight as possible. Your cartwheel will finish in the opposite lunge from your start position, and you will be facing the direction that you came from. Your arms will finish by your ears as they were initially.

In the lunge-to-lunge cartwheel both hands will leave the ground at the same time. This will help to develop a proper round-off. Again, the action is pushing the floor away, not just lifting your hands off the floor.



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### One-Armed Cartwheel

Practice one-armed cartwheels only after your side and lunge-to-lunge cartwheels are consistent and solid on both left and right sides. There are actually four different ways to do a one-armed cartwheel: A “near-arm” cartwheel uses the lead hand. For example, a right near-arm cartwheel starts with your right leg in front, and only your right hand contacts the ground. A “far-arm” cartwheel uses the trailing hand. For example, a right far-arm cartwheel starts with your right leg forward, and only your left hand contacts the ground. Practice near-arm and far-arm cartwheels on both sides.

### Lunge-to-Hollow Cartwheel

Initiate the cartwheel like a lunge-to-lunge cartwheel, but near the end bring your trailing leg down to meet your lead leg. You should finish standing in a hollow position with both feet slightly in front of you and your arms extended overhead. Walking backward out of this skill will be necessary to prevent falling over. This will help develop proper positioning for a round off if performed properly.



### Cartwheel Block-Out

Perform a lunge-to-lunge cartwheel but “block” off of the floor by pushing your shoulders upward aggressively as your second hand contacts the floor. This should lift your upper body off the floor before your first foot contacts the floor.





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### Round-off

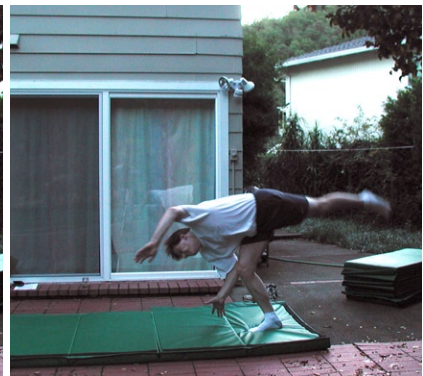
A round-off initiates like a lunge-to-lunge cartwheel, but at inversion your legs will come together and then both hands will block off the floor so that you land standing in a tight hollow position facing the direction you came. You should land with your feet well in front

of your body so the motion drives you backward. Falling over backward at the end of your round-off is a good sign. A proper round-off will have an aggressive block as described for the cartwheel block-out. This will propel your upper body upward as your feet snap down.



### Dive Cartwheel

Set up folded panel mats or another cushioned barrier and execute cartwheels over the barrier. Your feet will leave the ground well before your hands contact the floor. Both hands will contact the floor simultaneously. The lift will come from swinging your arms upward as you kick your rear leg. As this skill develops, you will find yourself placing your hands on the floor just before your feet land.



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### Aerial Cartwheel

An aerial cartwheel is a no-handed cartwheel. Once you find that you just barely need to touch your hands on a dive cartwheel, an aerial cartwheel is within reach. Set up a folded panel mat or other raised platform and place a soft landing mat at the end. Practice aerial cartwheels off the platform to allow for a little more time in the air. An aggressive kick of your rear leg and strong push off your lead leg is necessary to make the aerial. Good hip flexibility and fast legs are required to complete the motion.

A spotter can assist this skill by standing so that the gymnast's back will be to the spotter during the aerial cartwheel. For example, during a left aerial cartwheel the spotter will stand to the left of the gymnast in his line of travel. As the gymnast performs the aerial the spotter will place his right hand on the gymnast's left hip, then catch the gymnast's right hip with his left hand as the aerial completes.

### Common mistakes in learning the cartwheel include:

1. Heels contacting the ground first. This is a result of turning the hips out too much and makes it very difficult to stand up out of the cartwheel. It is important that the toes are the first part of the foot to contact the floor. Your foot will be pointing toward the place you began your cartwheel. Tape lines can be placed on the floor to indicate proper foot and hand placement.
2. Lifting the hands off the floor rather than pushing the floor away. As the hands leave the floor, there should be a distinct push through the shoulders and fingers. If you see a trainee pull her elbows in as she finishes her cartwheel, she is likely lifting her hands rather than pushing the floor away.
3. Kicking the cartwheel around the side. The kick should go straight over the top, with no bend in the torso. A good cartwheel can be done between two mats standing upright about eight inches apart.
4. Reaching down to the floor by closing the shoulder angle. The shoulder angle should be kept open throughout the cartwheel. Reaching down and letting the head come out will negatively impact the alignment of the cartwheel.



Roger Harrell is a former competitive gymnast with twenty years of experience in the sport. He has continued to train in the sport well beyond his competitive years. He has run several competitive gymnastics training programs and currently focuses on coaching adults and bringing the benefits of gymnastics to those outside the usual community. He is the developer, designer, and webmaster of [www.DrillsAndSkills.com](http://www.DrillsAndSkills.com).

