

MOTOR COORDINATION ACTIVITIES: INTEGRATED MOVEMENTS

WALK THE LINE

Walk the Line is a series of activities that involve lines on the floor in patterns that particularly improve lateral balance. Some of the activities will work easily in groups with just a single piece of tape behind each person's chair. For other activities, participants need to be up and away from their chairs. For those activities, participants should take turns.

Benefits »

- ⊙ Improves lateral (side-to-side) balance.
- ⊙ Increases abductor and adductor strength.
- ⊙ Uses narrow base of support.
- ⊙ Teaches visual targeting.

Set It Up »

You will need several rolls of masking tape, in wide and narrow sizes and in various colors, if available. In lieu of creating lines, sometimes you can find lines in the design of the carpet or flooring in your classroom. If you can have class outside, consider using sidewalk chalk. It is bright and fun. Whatever you use, have the lines ready for participants ahead of time.

How to Do It »

Over and Back

Place a line about 18 inches (46 centimeters) long behind each chair, perpendicular to the chair back. When you put the tape down, put a tab on each piece of tape (roll over a small piece at the end). This makes it much easier to take it back up.

This is a lateral stepping activity that can be used to practice everyday stepping skills as well as to strengthen hip abductors. Participants stand on one side of the line, facing the chair. They should lightly hold on to the back of their chair with both hands to start. Use these cues.

- ⊙ Stabilize your torso—shoulder blades back and down, abs in, knees soft.
- ⊙ Step over the line with both feet.
- ⊙ Step back.
- ⊙ Keep going.
- ⊙ Is your torso still stabilized? Are your knees still soft?
- ⊙ Imagine the tape is 4 inches (10 centimeters) high.
 - Lift your knees a little higher.
 - Step over, stop. Step back, stop. (The stop lets them find their balance between steps.)
 - Repeat a few times.

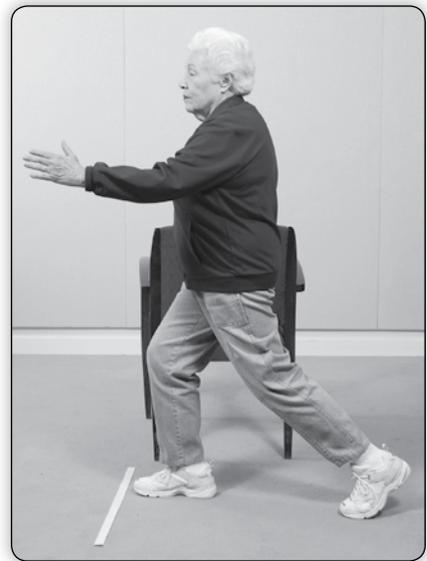
You can increase the balance challenge by doing the following:

- ⊙ Take wider steps.
- ⊙ Follow a rhythm. (Count in sets of 4 or 8 and participants try to keep time with your count.)
- ⊙ Hold the chair less tightly.
- ⊙ Hold the chair with just one hand.
- ⊙ Put hands on hips (advanced).

Big Steps

This activity increases stride length, practices everyday transitions, and requires planning. Participants must estimate how big of a step they think they can take. Turning around to take the next big step is an everyday mobility skill, too. This activity done behind chairs uses same piece of tape as Over and Back, above.

- Participants stand facing the line behind their chair, one hand on the chair back.
- Invite participants to step back from the tape as far as they estimate they can take one big step. Use these cues:
 - Stabilize your torso—shoulder blades back and down, abs in.
 - Keep one hand on your chair.
 - Take the step! Land it and bring the other foot beside it.
- Have participants turn around carefully and set up to take their big step again.
- Once they've done a few big steps successfully, cue them to use bigger knee lifts and a heel-toe motion or add an arm swing.
 - Lift your knee as you get ready to step.
 - Use that knee height to help get your heel out across the line.
 - Can you land heel-toe?
 - Do it again.
 - Knee lift, heel-toe.
 - Follow the foot out there (think Belly Steps, page 242) and move your torso toward that line, too.



Step-Ball-Change

This intermediate activity practices a crossover stepping pattern. It lets participants practice balancing over a narrow base of support, strengthens hip abductors and adductors, and requires weight shifts. This activity done behind chairs uses same piece of tape as Over and Back, above.



- ⊙ Participants stand an arm's length from the back of their chairs, with both feet on the right side of their taped line. Torso is stable and knees are soft.
- ⊙ Their job is to do a step-ball-change across the line. (It's a crossover step forward, then back.)
- ⊙ For balance safety, when one foot crosses the line the same-side hand can touch the chair.
- ⊙ Use the following cues:
 - Right foot steps across the line.
 - Transfer your weight to it.
 - Step back to the starting position. That's one step-ball-change.

Do six to eight repetitions with one leg, and then change sides.

You can increase the balance challenge of this activity by adding the following:

- ⊙ A complete weight shift, such that the unweighted foot lifts slightly.
- ⊙ A cadence or count
- ⊙ Music

Watch for signs of wobbliness with this activity. Participants who use a walker should use it for this one. Participants who have had recent hip surgery should not do this activity. Take it slow and easy, especially at first.

Pendulum Legs on a Tandem Line

This intermediate activity is essentially a leg lift from back to front that ends up looking like the movement of a pendulum. It lets participants practice static balance over a narrow base of support, strengthens hip abductors, and uses weight shifts. To set this one up, the taped line should run parallel to the back of the chair, about a yard (meter) long.

- ⊙ Participants stand on the line behind their chair, one hand on their balance support and knees soft.
- ⊙ Cue them for proper posture: tall standing, abs in, ribs lifted.
- ⊙ Participants swing the outside leg forward and transfer most of their weight to it.
- ⊙ Participants swing same leg back again and put most of their weight on it.
- ⊙ Repeat 8 to 12 times.
- ⊙ Change legs.



You can increase the balance challenge of this activity by having participants transfer all their weight to the new forward leg. When it lands lift the rear heel off the line. When the leg swings back again, they should put all their weight on that leg and lift the now forward knee.

The Straight and Narrow

This is the first Walk the Line Activity away from chairs; plan on participants taking turns. Participants will practice walking (dynamic balance) over a narrow base of support to strengthen their hip abductors and to practice visual targeting skills. They can pick either the straight or the narrow challenge.

- ⦿ You'll use three 12-foot (4 meter) lengths of masking tape to create this three-line walking path. Two lines should be laid down 10 to 12 inches (25-30 centimeters) apart to form the outside dimensions of the path. The third line will run down the middle. To make the lines distinctive, use a wider width and a different color for the middle line. Place the path an arm's-length from a handrail or be available yourself for balance support.
- ⦿ On the first pass, give participants a choice. They can walk this path either by staying between the two narrow lines or walking on the wide center line. They can try it a couple of times if they like.
- ⦿ On the second pass, they should walk it with the abs braced and shoulder blades back and down.
- ⦿ Ask them if walking tall and more upright helps.
- ⦿ On the third pass, have them keep their knees soft and put their arms out to the side.
- ⦿ Ask if those changes made a difference.
- ⦿ On the fourth and fifth passes, have them experiment with slow and fast walking speeds and see which is easier.
- ⦿ By now, they know this path pretty well. This time ask them to walk their chosen path with these skills together: good posture, soft knees, arms out to the side, and reasonably quickly, plus one more.
- ⦿ Stand at the end of the path and provide a horizon-level, visual target (it can be a picture, a spot on the wall, or your hand). You want them to walk the line without looking down.
- ⦿ Remind them that their brain knows what their feet are doing, even without seeing the feet. Ask participants to look directly at the target, not down and at the line. If this is too difficult, get them at least to look toward the end of the line. Brace their abs, soften their knees, hands to the side, Go! You can use the following cues as they are needed.
 - Only look ahead at horizon level.
 - Torso braced, shoulder blades back and down, ribs lifted.
 - Knees soft, arms out to the side.
 - Gaze ahead at the horizon.
 - Walk quickly along the Narrow path.
 - What changed when you used the visual target for guidance? (Makes it easier to stay on the path.)



You can give this activity more balance challenge by doing the following:

- ⦿ Challenge them to try walking the center line, the Straight path.
- ⦿ Encourage them to use less support from the handrail.
- ⦿ Try it with music. “New York, New York” is a great one.
- ⦿ They can carry a glass of water with both hands. No spilling!

Walk and Waddle

The task of this activity is to walk along two widely set lines. Left line, right line, left line, right line—each step is a transition from side to side. The resultant big sways create a lumbering gait, a kind of walk and waddle.

- ⦿ Put down two tape lines that are 8 to 12 feet (3 to 4 meters) long and 12 to 24 inches (30-61 centimeters) apart, depending on participants' ability. Place the lines near a handrail or row of chairs for balance safety.

- ⦿ Have participants practice Walk and Waddle beside their chairs.
 - First practice wide lateral swaying from one foot to the other.
 - Then practice waddling steps (big, wide stepping motions) from side to side, near their chairs. You want them to get a feel for the side-to-side swaying, before they get out on the floor.
- ⦿ Head to the lines, stay near them, and take turns. You can use the following cues.
- ⦿ First pass.
 - Step on the right line.
 - Transfer your weight to that leg and then push off from there so you can land on the left line.
 - Move along, allowing yourself to lumber from side to side.
 - Feel your legs push you back to center.
 - Lean right. Push left.
 - Lean left. Push right.
- ⦿ Add arms, on the second pass, if you think they are ready.
 - As you lean right, reach your right arm left. Then vice versa (lean left, reach right).
 - The arms help correct the sideways movement.
 - Arm swings give momentum that helps bring you back to center. Can you feel that?
- ⦿ Add music.
 - Try to walk and waddle to music.
 - See if the music can help you make your movements bigger, more like diagonal lunges.
 - Can you step to the right and reach an arm over to the left and vice versa?

Holiday Lines

Curved or complex lines add a change in direction to straight-line activities. They are just a little more difficult but probably won't seem so because they are more engaging and fun. This activity lets participants practice dynamic balance over a narrow and ever-changing base of support. The activity lets them practice changes in direction, strengthen hip adductors and abductors, and use visual targeting skills.

- ⦿ Pick a theme and make a masking tape image on the floor for them to follow. Examples might be a heart, shamrock, Easter egg, bunny, chick, flower, flag, fireworks, ship, airplane, rocket, Christmas tree, Star of David, cloud, autumn leaf, basketball, football, baseball bat, race car, covered wagon, stop sign . . . or just a simple wavy line.
- ⦿ Participants walk along the outline of the image.
- ⦿ Cue them like other Walk the Line activities to keep the abs in, ribs lifted, and shoulder blades back and down. Knees soft and arms out to the side. Gaze ahead at next turn.
- ⦿ For more challenge dim the room, give a dual task, or try sunglasses or heads-up glasses.



H-Lines

Maintaining standing balance with offset feet or tandem feet is difficult. Bracing the core muscles, imagining yourself glued to the floor, and establishing a visual target are all techniques that will help with this task. This activity lets participants practice static balance over a narrow base of support, improves kinesis, and refreshes earlier concepts (When Push Comes to Shove and visual targeting).

- ◎ Before class, make an H-line out of masking tape for each person. Simply tape down a big letter *H*. Make the parallel lines 8 to 10 inches (20-25 centimeters) apart. Be sure to tab each piece of tape so it pulls off quickly when you are done.
- ◎ Appropriate balance support may include using walkers with a chair behind or placing chairs on three sides of the participant.
- ◎ H-line Challenge 1 is standing with parallel feet. Participants stand with feet side by side on the parallel sides of their H-line, toes behind the crossbar. Use the following cues.
 - Place your feet on the parallel lines and look directly ahead. Take a deep breath.
 - Exhale, blow out all your air, and draw your shoulder blades back and down. Brace your core muscles.
 - Push down with the palms of your hands and mentally glue yourself to the ground.
 - Don't just place your feet there; plant your whole self there (as learned in When Push Comes to Shove).
 - Keep shoulder blades back and down, knees soft.
 - Hold the position 10 to 20 seconds, breathing normally.
- ◎ H-line Challenge 2 is standing with offset feet. Participants stand on parallel lines with feet offset, the preferred foot in front of the crossbar. Give them a few tries to figure out which foot they prefer to have forward (kinesthetic learning). Their task is to practice the When Push Comes to Shove stance in an offset position. Use these cues.
 - Inhale, exhale, look directly ahead, and bend your knees slightly.
 - Push your shoulders down and glue yourself to the floor.
 - Keep most of your weight over the back foot.
 - Hold steady for 5 to 10 seconds, if possible.
 - Step off your lines and take a break.
 - Try it with the other foot forward.



- ⦿ H-line Challenge 3 is standing with tandem feet. After a brief rest, invite those who are willing to step on the H-line, tandem style. Not everyone will be willing or able to do this one. Those that aren't up to this challenge can do Challenges 1 or 2 again. Monitor participants closely and provide extra balance support.
- ⦿ Once your participants are on their marks, use the following cues.
 - Bend your knees a little.
 - Transfer most of your weight to the back foot.
 - Look straight ahead; find a visual target at horizon level.
 - Inhale, exhale, brace your core muscles, and glue yourself down.



You can give any of these three foot positions more balance challenge with the following:

- ⦿ Lift an arm up.
- ⦿ Lift arms out to side.
- ⦿ Close one eye.
- ⦿ Do arm swings, while holding the position.
- ⦿ Recite or read a poem.
- ⦿ Tell a joke.
- ⦿ Get them to laugh at one of your jokes.

Live It »

There are all kinds of line challenges. Most are about maintaining balance over a narrow base of support. The narrowed base means more balance is required, particularly lateral balance. Lateral balance helps prevent falls. These activities especially strengthen the inner and outer thighs, which are critical to preventing falls to the side. Visual targeting is also an important aspect of walking the straight and narrow situations in life.