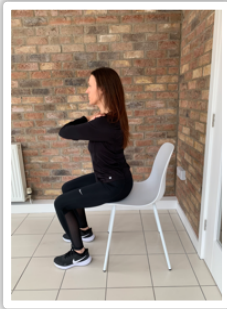


## Top 10 Resistance Exercises for Hillwalkers

- Always warmup for about 5 minutes before you start, with some light cardio and movement of your body
- Aim for 1 set of 15 repetitions for each exercise (unless otherwise stated). As your strength builds add a second set.
- Adopt a 2/2 pattern: 2 seconds for first half of the movement, 2 seconds for second half of the movement, e.g. calf raise: 2s to raise heels off floor and 2s to lower back to the floor.
- Options have been provided for each exercise to make it easier / harder.
- Technique is key, be precise and don't forgo technique to increase your number of repetitions.
- You should maintain a 'neutral spine' for all these exercises, i.e. the natural position for your spine where it is long with its curves at the neck, upper and lower back, not swaying from side-to-side or curving excessively in any direction.
- Don't forget to do both sides!



### 1. Chair Squat

Works: Upper legs and bum

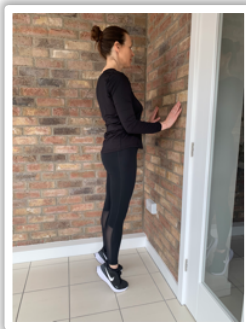
- Feet shoulder width apart
  - Bend knees and hips to angle of 90 degrees / sit on seat
  - Push back up through mid foot and heel
  - Return to start position
  - Hold chest and head up throughout & hold shoulder blades together
- Make it easier: use hands to help get on/off seat*  
*Make it harder: do not sit down fully (let bum just touch seat briefly), full squat, add weights to full squat*



### 2. Reverse Lunge

Works: Upper legs and bum

- Stand with arms at side, take a large step backwards (approx 1 metre between front & back foot & feet hip distance apart)
  - Bend both knees to c. 90 degrees, front knee above ankle, back knee one fist distance from ground
  - Do not let front knee pass in front of ankle
  - Keep neutral spine and chest lifted
  - Return to upright posture & repeat on opposite side
- Make it easier: hold the back of chair for support, reduce depth*  
*Make it harder: do full set on one leg then other, raise knee at top of movement*



### 3. Calf Raise

Works: back of lower leg

- Stand facing a wall with your feet hip width apart
  - Keeping spine long, lift both heels off the floor and raise to the balls of your feet, then slowly drop heels back to the floor.
  - Try to initiate the lift from the crease at the bottom of your bum, lift through your spine, keep the big toe joint on the floor.
- Make it easier: smaller raise*  
*Make it harder: take hands away from wall, single leg calf raise and/or add weights*



### 4. Bird/Dog

Works: Core, hips & back

- Start on all fours with hands beneath shoulders, knees beneath hips (start position)
  - Extend opposite arm and leg as far as possible without losing neutral spine or balance
  - Pause for a second in extended position
  - Return to start position & repeat with other side. During transition from one side to other minimise swaying side-to-side
- Make it easier: Reduce height raised, do legs or arms only*  
*Make it harder: Slow down the movement*



## 5. Deadbug

Works: Core

- Lie on back, arms at sides and feet on floor, head and shoulders rest flat on floor
- Lift legs so knees are above hips bent at 90 degrees
- Lift arms straight to ceiling, directly above shoulders (start position)
- Without arcing lower back, lower left arm towards floor, at same time lower right leg towards floor (not touching floor)
- Return to start position & repeat on other side

*Make it easier: do legs only*

*Make it harder: slow down the movement*



## 6. Shoulder Bridge

Works: Back of legs, bum, core

- Lie on back, knees bent arms flat on floor with finger tips able to touch heels
- Tilt pelvis, push through feet and lift back off the floor, one vertebrae at a time, until you reach middle of shoulder blades
- At top of movement gently push with bottom to open up hips and keep spine in neutral
- Roll back down through spine to start position

*Make it easier: don't rise as high*

*Make it harder: Raise heels off floor, raise arms above shoulders, lift one foot off floor*



## 7. Clam

Works: Bum and outside of hip/thigh

- Lie on side with neutral spine, hips stacked, both legs bent
- Aim for feet to be in line with hips, rest head on upper arm, place other arm in front for support
- Rotate upper leg in hip joint to open knee towards ceiling, keep feet touching and try not to sway hips backwards and forwards

*Make it easier: do not open as wide*

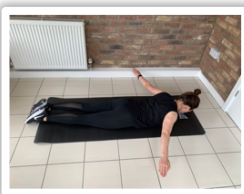
*Make it harder: lift feet off floor when legs are open, extend top leg*



## 8. Side Plank (on knees)

Works: side of the torso, shoulder, side of lower leg

- Lie on your side, put your bottom forearm on the floor with your elbow in line with your shoulder. Bend your knees and keep your feet, bum and shoulders in a straight line.
  - Lift your ribs away from the floor so you are not sinking into your left shoulder (start position).
  - Push weight through knees and lift hips off the floor and then lower.
- Make it easier: smaller lift of the hips, or practice lifting the ribs without the hip raise*
- Make it harder: straighten legs and lift hips from this position, so only forearm and feet stay in contact with the ground and/or lift top leg*



## 9. Reverse Snow Angels

Works: Core, back, shoulders

- Lie on floor face down, with arms extended above the head
  - Keeping a neutral spine, hover face and arms off the floor (start position)
  - Arc arms down towards your thighs in the motion of a snow angel, touch side of legs and bring hands back to start position
  - Remain in hovered position facing the mat throughout the exercise
- Make it easier: Keep face on floor (rest forehead on small towel)*
- Make it harder: Slow down the movement*





## 10. Mountain Climbers

Works: Core, chest, shoulders & legs

-THIS EXERCISE SHOULD BE DONE FOR 30 SECONDS AND BUILD TO 45 SECONDS, USE A 1/1 RHYTHM – 1s FORWARD, 1s BACK

-Start in a high plank position, with shoulders over wrists

-Alternating legs, drive each knee towards your chest

-The foot that is being pushed forward should not touch the floor

-Keep spine in a neutral position and don't raise or drop the bum

*Make it easier: Let foot touch floor as it comes forward, do for less time*

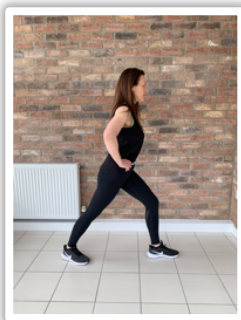
*Make it harder: do for longer, add knee diagonals towards opposite hand*

## Top Stretches for Hillwalkers

- You should feel mild tension when the muscle is stretched, but not pain.
- Hold each stretch for 10-15 seconds and do this twice.
- Make sure you do both sides

### Back of lower leg

- Take large step forward, keep rear leg straight and front leg bent
- Ensure front knee does not pass over ankle
- Gently lean forward from the hips, keeping both feet facing forward



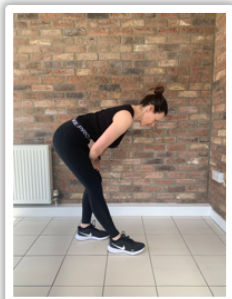
### Front of thigh

- Bend right knee and grip foot over shoelaces, keep supporting knee soft
- Hold onto a wall for balance if needed
- Keep shoulders and hips square and knees together
- Push open the hips by pushing pubic bone forward



### Back of upper leg

- Standing with feet hip width, take the right foot forward so the heel of the right foot is horizontally in line with the top of the big toe of the left foot (but still hip width)
- Support the weight on the left leg, lifting the hips up and back
- Keep front foot flat on the ground



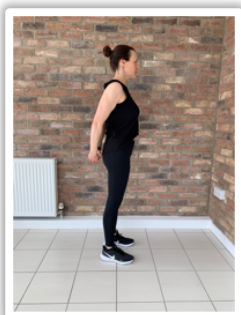
### Bum

- Sit on a chair or sideways on your car seat with door open
- Cross your right leg over your left leg just above the knee
- Lean your chest forward towards your legs and apply a small amount of pressure just above the right knee, pushing it away from you



### Chest

- Clasp hands behind the body and raise the arms without leaning forward
- Keep elbows slightly bent and chest upwards, inhale deep to maximise the stretch



### Upper back

- Clasp hands in front of the body and pull forwards
- Keep elbows slightly bent & push through shoulders
- Drop head to maximise the stretch

