



# VESTIBULAR REHABILITATION

## Beginner Level Exercises

### Medical Disclaimer

This content is provided for educational purposes only and is not a substitute for professional medical advice or treatment. Anyone seeking guidance about a specific condition should consult a medical provider before engaging in these exercises. The individual who performs these exercises is solely responsible for all outcomes of the use of this material.

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# INTRODUCTION

We have more power than we think to change our health. Throughout the vestibular rehabilitation process, giving yourself reassurance goes a long way toward improvement. Know that you are achieving the results that will make all the difference.

Vestibular rehabilitation exercises intentionally challenge the vestibular system in order to make it stronger and to decrease sensitivity to motion. Stimulation of the vestibular system causes a temporary increase in symptoms during and immediately following the exercises. This response is normal and expected during treatment. Although the temporary increase in symptoms may feel uncomfortable and possibly worrisome, this is not a sign of a worsening condition, and is actually an important part of healing and rehabilitation.

Here is one tip to help you get started: When you do ONE stimulating exercise and you feel imbalance...breathe deeply/reset and when stabilized, then CONTINUE onto the next exercise. Additional suggestions are included to help you manage the fluctuation in symptoms and perform the exercises at the most appropriate intensity level for you. By following these guidelines and resting as needed, vestibular rehabilitation will help you return to doing the things you love to do every single day.

## BEGINNER LEVEL

### EXERCISE LIST:

#### Seated:

1. Head Nod
2. Head Turn
3. Gaze Stabilization with Head Nod
4. Gaze Stabilization with Head Turn
5. VOR (Vestibulo-Ocular Reflex) Cancellation
6. Head Tilt with Eyes Open
7. Head Tilt with Eyes Closed

#### Standing Balance:

8. Standing with Feet Together
9. Standing on One Leg (Single-Leg Balance)
10. Tandem Stance (Heel-Toe Balance)

#### Walking Exercises:

11. Walking with Small Head Turn
12. Walking Gaze Stabilization with Small Head Turn
13. Walking VOR Cancellation with Small Head Turn

## BEGINNER LEVEL

Start all exercises with upright posture. Sit on a supportive surface with feet flat on the ground, pelvis and lumbar spine in a neutral position (not slouched and not arched). Lift chest and relax shoulders down and back. Finally, do a small cervical retraction/chin tuck, bringing head straight back.

The repetitions and frequency listed in each exercise are suggestions only. For best results, start with what can be done safely and what is tolerable. See tips at the end for more guidance.

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### 1. Head Nod

*20 repetitions, 1x daily*

#### Starting Position

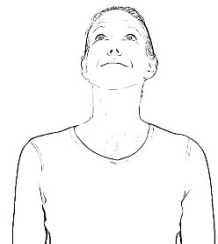
Sit upright. Look forward.

#### Movement

Lower your head, chin toward your chest. Then lift your head, chin up. Continue alternating lowering and lifting your head.

#### Tips

Move at a comfortable pace and do not focus your eyes on any particular object. Try matching your breath with each movement by exhaling as you lower your head and inhaling as you lift your head.



### 2. Head Turn

*20 repetitions, 1x daily*

#### Starting Position

Sit upright. Look forward.

#### Movement

Turn your head to the right, then turn your head to the left. Continue alternating right and left head turns.

#### Tips

Move at a comfortable pace and do not focus your eyes on any particular object. Try matching your breath with each movement by exhaling as you turn your head to the right and inhaling as you turn your head to the left. Or, exhale for one full turn to the right and left and then inhale on the next full turn to the right and left.



### 3. Gaze Stabilization with Head Nod

20 repetitions, 1-4x daily

#### Starting Position

Sit upright. Look forward. Hold one thumb or index finger in front of you with a straight arm. An alternate target can be a post-it note on the wall at eye level.

#### Movement

Keep your eyes focused on the target while you move your head up and down with a small amount of motion, no more than 20 degrees. Continue the small head nod while maintaining visual focus on the target.

#### Tips

Move your head at the fastest speed you can while keeping the target in focus. If the target begins to blur, slow the movement of your head.

If you wear glasses (except for bifocals), wear them while doing the exercises. When wearing bifocals, the image might jump during up and down head movement, making it difficult to maintain focus and *possibly* increasing dizziness; doing head nods without bifocals yields better results.

Continue breathing naturally throughout the movement.



### 4. Gaze Stabilization with Head Turn

20 repetitions, 1-4x daily

#### Starting Position

Sit upright. Look forward. Hold up one thumb or index finger in front of you with a straight arm. Alternate target: A post-it note on the wall at eye level. Focus your eyes on the target.

#### Movement

Keeping your eyes focused on your finger, turn your head slightly to the right, then to the left, no more than 20 degrees to each side. Continue the small head turn while focusing on your finger.

#### Tips

Move your head at the fastest speed you can while keeping the target in focus. If the target begins to blur, slow the movement of your head.

Continue breathing naturally throughout the movement.



## 5. VOR (Vestibulo-Ocular Reflex) Cancellation

20 repetitions, 1x daily

### Starting Position

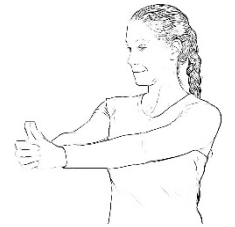
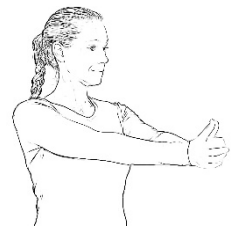
Sit upright. Look forward. Hold one thumb or both thumbs in front of you with a straight arm. Focus your eyes on your finger.

### Movement

Move your finger side to side and follow the movement with your head and eyes, so that your finger, head and eyes are moving together. Continue.

### Tips

Keep the side-to-side motion small to start and do not strain your shoulder or neck. Move at a comfortable speed, keeping the target in focus.



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## 6. Head Tilt with Eyes Open

20 repetitions, 1x daily

### Starting Position

Sit upright. Look forward.

### Movement

Tilt your head to the side, lowering your ear toward shoulder. Pause, then tilt your head to the other side. Continue alternating head tilts with smooth, steady motion.

### Tips

Do not focus your eyes on any particular object in front of you. Keep shoulders relaxed and keep the motion small and slow to avoid neck strain. Continue breathing naturally.



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## 7. Head Tilt with Eyes Closed

20 repetitions, 1x daily

### Starting Position

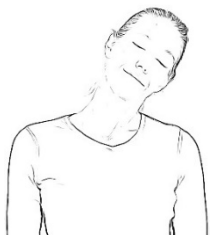
Sit upright.

### Movement

Close your eyes. Tilt your head to the side, lowering your ear toward shoulder. Then tilt your head to other side. Continue alternating head tilts with smooth, steady motion.

### Tips

Keep shoulders relaxed and keep the motion small and slow to avoid neck strain. Continue breathing naturally throughout the movement.



## STANDING BALANCE

### 8. Standing with Feet Together

*Hold 1 minute, 2 repetitions, 1x daily*

#### Starting Position

Stand upright next to a sturdy countertop, feet a comfortable distance apart.

#### Movement

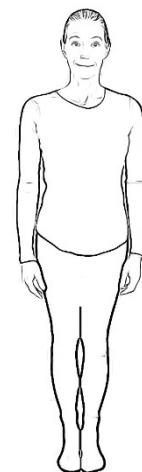
Touching the countertop for support as necessary, bring your feet as close together as possible. Hold this position and gradually decrease touch on the countertop as you are safely able. Step your feet apart and rest for a few seconds. Repeat.

#### Tips

Pay attention to your posture and notice where you feel the most weightbearing – under your heels or toes, left foot or right foot, inside or outside of your feet, or right in the middle. Notice how this might change as you practice balancing.

Engage your core muscles by tightening your abdominals (bring your navel toward your spine) and your gluteal muscles (squeeze your buttocks).

Continue breathing naturally.



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### 9. Standing on One Leg (Single-Leg Balance)

*Hold 30 seconds, 2 repetitions, 1x daily*

#### Starting Position

Stand upright next to countertop, feet a comfortable distance apart.

#### Movement

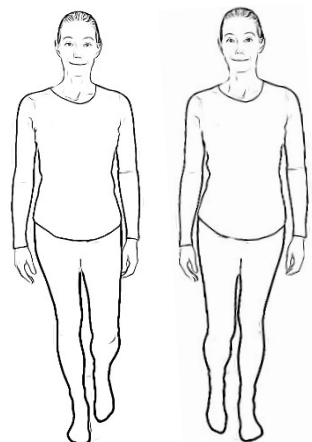
Touching the countertop for support as necessary, shift weight onto the right leg and lift the left foot a few inches off the ground. Hold this position and gradually decrease touch on the countertop as you are safely able. Lower the left foot, shift weight onto the left leg and lift right foot. After holding this position, lower foot and rest. Repeat, alternating legs.

#### Tips

Pay attention to your posture and notice where you feel the most weightbearing – under your heel or toes, inside or outside of your foot, or in the middle. Notice how this might change as you practice balancing.

Engage your core muscles by tightening your abdominals (bring your navel toward your spine) and your gluteal muscles (squeeze your buttocks).

Continue breathing naturally.



## 10. Tandem Stance (Heel-Toe Balance)

*Hold 20 seconds, 2 repetitions, 1x daily*

### Starting Position

Stand upright next to a countertop, feet a comfortable distance apart.

### Movement

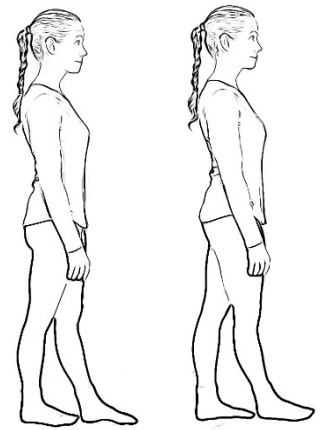
Touching the countertop for support as necessary, step one foot directly in front of the other, bringing your heel in front of the toes of the opposite foot. Hold this position and gradually decrease touch on the countertop as you are safely able. Step your feet apart and rest for a few seconds. Switch legs and repeat.

### Tips

Pay attention to your posture and where you feel the most weightbearing – under your heels or toes, left foot or right foot, inside or outside of your feet, or right in the middle. Notice how this might change as you practice balancing.

Engage your core muscles by tightening your abdominals (bring your navel toward your spine) and your gluteal muscles (squeeze your buttocks).

Continue breathing naturally.



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## WALKING EXERCISES

## 11. Walking with Small Head Turn

*100 feet (33 meters) walking distance total, 1x daily*

### Starting Position

Stand upright next to a countertop, feet a comfortable distance apart.

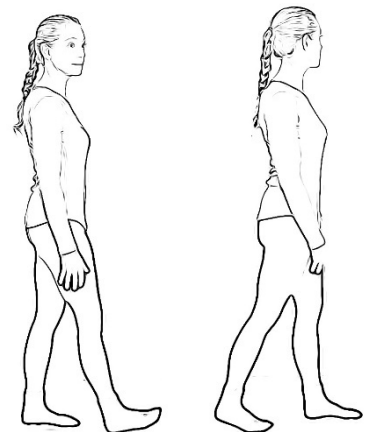
### Movement

Begin walking next to the countertop. Look right and turn your head to the right, then look left and turn your head to the left. Continue alternating right and left head turns. Do not focus on any particular object other than making sure your pathway is clear of tripping hazards.

### Tips

Start with small, slow, smooth head turns and a slow walking pace. Gradually increase speed as balance and confidence improve. If balance support is needed, run your fingers along the countertop. Decrease touch on the countertop as you are able, gradually progressing to walking in open space.

Continue breathing naturally.





## 12. Walking Gaze Stabilization with Small Head Turn

100 feet (33 meters) walking distance total, 1-4x daily

### Starting Position

Stand upright next to a countertop, feet a comfortable distance apart. Hold one thumb or index finger in front of you with a straight arm. Focus your eyes on the target.

### Movement

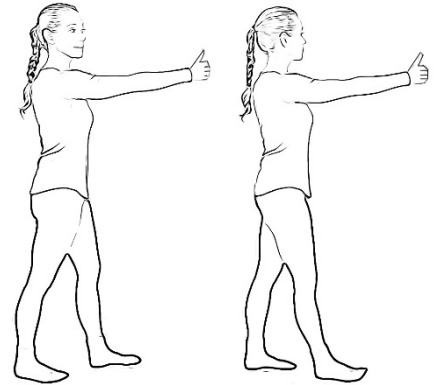
Keeping your eyes focused on your finger, begin walking and turn your head slightly to the right, then to the left. Continue the small head turn while focusing on your finger. Be sure your pathway is clear of tripping hazards.

### Tips

Keep head-turn movement small – no more than 20 degrees to each side.

Start with a comfortable walking pace and speed of head movement. Move your head at the fastest speed you can while keeping the target in focus. If the target begins to blur, slow the movement of your head. If balance support is needed, run your fingers along the countertop. Decrease touch on the countertop as you are able, gradually progressing to walking in open space.

Continue breathing naturally.



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## 13. Walking VOR Cancellation with Small Head Turn

100 feet (33 meters) walking distance total, 1x daily

### Starting Position

Stand upright next to a countertop, feet a comfortable distance apart. Hold one thumb or both thumbs in front of you with a straight arm. Focus your eyes on the target.

### Movement

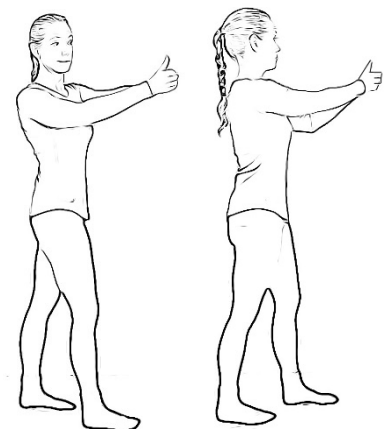
Keeping your eyes focused on your finger, begin walking and move your finger side to side, following the movement of your finger with your head and eyes, so that your finger, head and eyes are moving together. Continue with smooth, steady motion.

### Tips

Keep the head-turn movement small and do not strain your shoulder or neck.

Move at a comfortable speed, keeping the target in focus. If the target begins to blur, slow the movement of your finger, head and eyes. If balance support is needed, use only one thumb as your target and run your other hand along the countertop. Decrease touch on the countertop as you are able, gradually progressing to walking in open space away from the countertop.

Continue breathing naturally.



## OVERALL TIPS ON ACHIEVING THE BEST POSSIBLE OUTCOMES

### ***Repetitions***

The number of repetitions and times per day listed are suggestions only. Start with what you can do and gradually increase the number of repetitions as your confidence, comfort and condition improve.

### ***Recommended frequency***

For best results, start these exercises one time per day, either all at one time or broken up into multiple, shorter sessions. As tolerated, you might add a second session. As indicated above, the gaze stabilization exercises can be performed up to 4 times per day for optimal recovery. A reasonable goal for overall exercise time is 20 minutes per day. While results are best with daily performance, taking a day off once a week or so can be helpful to balance the intensity of the overall program so that it is tolerable long term. Typically, it takes about six weeks of daily exercise to notice improvement. This varies person to person; some individuals respond sooner and some individuals require more time. It can be helpful to take note of small changes along the way for ongoing motivation and encouragement.

### ***Speed of movement and range of motion***

Start with slow movement in a small range of motion. Pay attention to your body, especially head, neck and shoulders. Build up gradually as your confidence, comfort, balance and condition improve.

### ***Normal response and recovery guidelines***

Between each exercise, pause for a moment, relax your head and neck, and take a deep breath to reset your system before moving on to the next exercise. Increased motion sensitivity, feeling off balance, and fatigue are common during and immediately following the exercises. **Any increase in baseline symptoms should dissipate within 20 minutes of completing the session.** If the increase in symptoms lasts longer or causes substantial difficulty in performing daily activities, decrease the intensity of the exercises by decreasing the repetitions, number of exercises, speed of movement and/or range of motion until symptoms resolve within 20 minutes. This is just a guideline – listen to your body and do more or less based on what feels tolerable.

Mild stretch/use discomfort is normal and usually dissipates after a few days. If there is pain, numbness, tingling, or weakness, then rest and decrease the repetitions, speed of movement and/or range of motion until the symptoms resolve.

Give yourself credit for any activity that challenges your vestibular system. Be aware of daily activity and life events that might be provocative. Adjust to these demands by decreasing your vestibular exercises and/or daily activity that might overload the vestibular system and cause a flare-up. Be mindful of pacing the exercises, daily activity and special events to manage the overall recovery process.

### ***Breathe***

Be sure not to hold your breath! Matching breath to movement works well for some exercises and just breathing naturally works better for other exercises, depending on the speed of movement and your comfort level with the exercises. The most important thing is to keep breathing. Experimenting with your breathing pattern after becoming familiar with the exercise is a great way to improve recovery.

### **Surface**

Consider the surface when performing standing and walking exercises, especially the balance exercises. Balancing on a soft surface, such as carpet or foam, is more difficult than on a firm surface. Give yourself extra credit if you do balance exercises on a soft surface. It is normal to be able to maintain balance for less time when standing on a soft surface. When testing your balance, time yourself on a firm surface.

### **Progressions**

When you are ready to progress an exercise, choose one component to progress at a time. For example, do not increase speed and reps at the same time. If you increase one aspect of the exercise, keep the rest of the exercise the same. Next time you are ready to progress the exercise, increase a different aspect of the exercise. When an exercise is first progressed, stand next to a countertop for a few sessions (or more, as needed) to improve stability and build confidence, then gradually decrease the support as able.

### **Variety**

After you begin to feel comfortable with the exercises, consider varying the order session to session. You will benefit from doing different exercises when you are fresh and others when you begin to fatigue.

### **See a specialist...**

- Before starting these or any vestibular rehabilitation exercises.
- If you experience a severe increase in symptoms after completing the exercises that lasts for more than 20 minutes.
- If your daily function worsens, such as difficulty sleeping, completing daily tasks or moving around your home safely.
- If you have new symptoms since last seeing your healthcare provider.
- Some of the specialists involved with treating vestibular dysfunction include: Ear, Nose and Throat physician (ENT)/Otolaryngologist, audiologist, neurologist, neuro-ophthalmologist, osteopath, vestibular physical therapist, and more.
- To find a specialist in your area, see Vestibular Disorders Association's Healthcare Directory: <https://vestibular.org/healthcare-directory/>.

### **Complementary Interventions:**

- Nutrition consultation may be helpful to find the best food plan to match your individual needs.
- Sleep evaluation may be beneficial to identify and address possible sleep dysfunction.
- Mindfulness, meditation, relaxation and breathwork may be helpful in improving your sense of balance and knowing where you are in space, reorienting yourself to feeling upright and still when not moving, and increasing the connection between your body and physical environment.
- Cognitive Behavioral Therapy may be helpful to address emotional distress, limiting thoughts, and response to trauma, life stress, difficult relationships, and challenging life events.