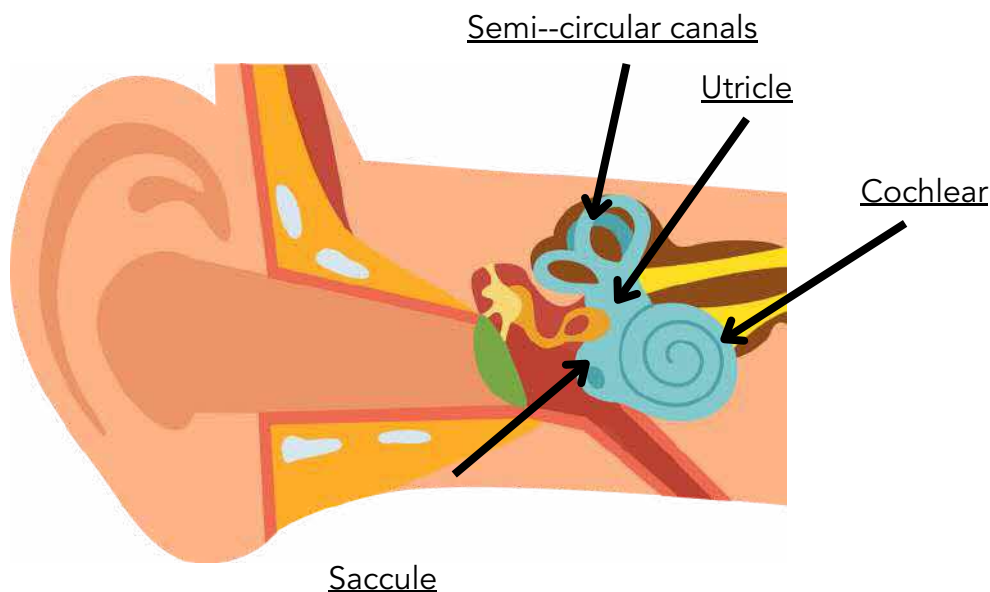


Exercises for Vestibular Hypofunction

The information in this handout provides a reference for exercises designed to address vestibular hypofunction. You should only perform exercises that are prescribed to you by a healthcare professional. If you or your family members have questions, please contact your therapist-in-charge.

What is the Vestibular System?

Vestibular system is located in the inner ear, and includes the cochlea, a snail-like organ responsible for hearing, as well as the utricle, saccule and three semi-circular canals, which are the organs that help maintain balance. They are connected by inner ear fluid (endolymph) and have tiny hair cells at the end area.



What is the Function of the Vestibular System?

The vestibular system detects head movements, which sends this sensory information to the brain via nerve signal. The brain then sends this information to other organs such as the eyes, muscles and joints to maintain our balance and vision while we are moving.

What is Vestibular Hypofunction?

Vestibular hypofunction is when there is a decrease or loss of function of one (unilateral) or both (bilateral) vestibular system in the inner ears.

Symptoms may include:

- Vertigo (spinning sensation) or dizziness
- Poor balance particularly with head movements
- Blurred vision particularly with head movements
- Vomiting or nausea in some cases

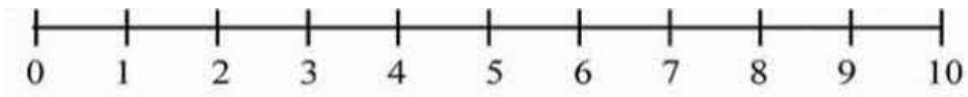
What is Vestibular Rehabilitation?

Vestibular rehabilitation is an individualised exercise-based approach to manage to dizziness and balance issues caused by vestibular condition(s).

It requires active participation from the affected individual to improve visual stability, maximise balance in standing/walking and reduce dizziness associated with movement.

Important Considerations Before Doing Vestibular Exercises

It is normal to encounter some dizziness/nausea during the prescribed exercises. You can rate your dizziness on a scale from 0 to 10 (0 being no dizziness and 10 being intense dizziness).



Keep the dizziness intensity below 4 on this scale to prevent overstimulation. Slow down if the dizziness intensity exceeds 4.



If dizziness/nausea persists for more than 30 minutes, you should stop exercising.

Gaze Stabilisation Exercises

Vestibular Ocular Reflex (VOR) x1 (Horizontal)

1. Mark a small 'X' on an empty piece of paper as a target. Paste the target on a plain wall, at eye level.
2. Sit or stand one arm's distance away from the target (~1 metre away).
3. Focus your eyes on the target.
4. Turn your head left and right as quickly as possible. Ensure that the target is clear and in focus.
5. Do _____ repetitions, _____ times a day.
6. Do this exercise in _____ (position).



Gaze Stabilisation Exercises

Vestibular Ocular Reflex (VOR) x1 (Vertical)

1. Mark a small 'X' on an empty piece of paper as a target. Paste the target on a plain wall, at eye level.
2. Sit or stand 1 arm's distance away from the target (~1 metre away).
3. Focus your eyes on the target.
4. Tilt your head up and down as quickly as possible. Ensure that the target is clear and in focus.
5. Do _____ repetitions, _____ times a day.
6. Do this exercise in _____ (position).



Gaze Stabilisation Exercises

Vestibular Ocular Reflex (VOR) x2 (Horizontal)

1. Mark a small 'X' on an empty piece of paper as a target. Keep the target at one arm's distance away from you.
2. Move the card 30 degrees to the left while turning your head 30 degrees to the right.
3. Move the card 30 degrees to the right while turning your head 30 degrees to the left.
4. Target must be focused and clear.
5. Do _____ repetitions, _____ times a day.
6. Do this exercise in _____ (position).



Gaze Stabilisation Exercises

Vestibular Ocular Reflex (VOR) x2 (Horizontal)

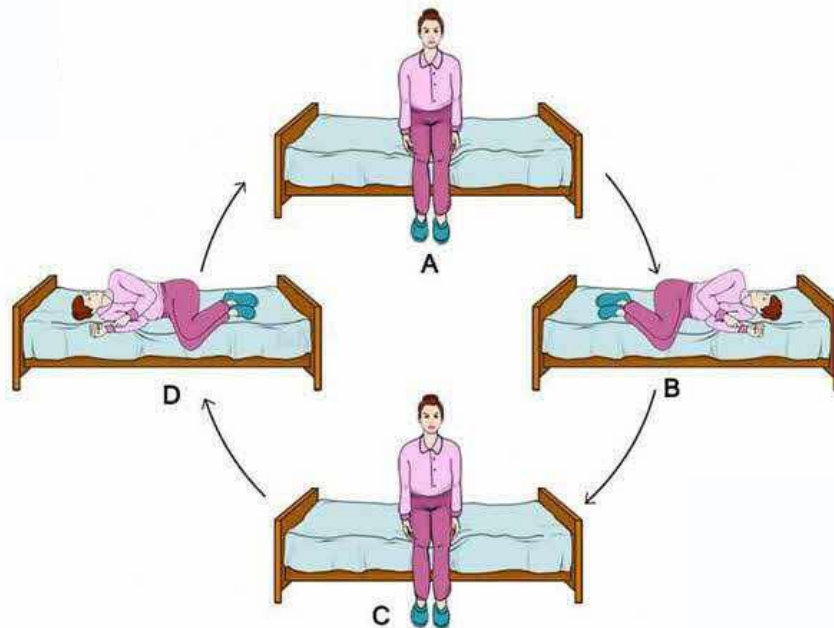
1. Mark a small 'X' on an empty piece of paper as a target. Keep the target at one arm's distance away from you.
2. Move the card down while tilting your head up.
3. Move the card up while tilting your head down.
4. Target must be focused and clear.
5. Do _____ repetitions, _____ times a day.
6. Do this exercise in _____ (position).



Habituation

Brandt Daroff Exercises

1. Sit on the edge of your bed, turn your head about 45 degrees to the left.
2. While maintaining this head position, lie down quickly on your right side so that the back of your head is resting on the bed. (B)
3. After dizziness resolves, wait another 30 seconds before sitting up. If there is no dizziness, just wait 30 seconds before sitting back up. (C)
4. Turn your head slightly to the right and repeat the sequence in the opposite direction. (D)
5. Do 3 to 5 repetitions on each side, 3 times per day.



Source: <https://www.anwar-ent.com/wp-content/uploads/brandt-daroff-exercises-.pdf>

Substitution Exercises

Active Eye Movements Between Two Targets

1. Paste two targets on the wall or hold them on your hands, shoulder width apart
2. Keep them at one arm's distance away from you (Targets A and B). Look forward.
3. Focus your eyes on Target A without turning your head.
4. Turn head towards Target A, ensuring that your head is in line with your focus).
5. Focus your eyes on Target B, then turn your head towards it.
6. Increase the speed slowly.
7. Do _____ repetitions, _____ times a day.
8. Do this exercise in _____ (position).



Exercises

Imaginary Targets

1. Paste the target on the wall, at one arm's distance away from you.
2. Face the wall and look at the target.
3. Close your eyes and turn your head to the left while imagining that you are still looking at the target.
4. Open your eyes to see if your focus is still on the target.
5. Repeat the above in the opposite direction.
6. Increase the speed slowly.
7. Do _____ repetitions, _____ times a day.
8. Do this exercise in _____ (position).



Contact Us

- Please consult a vestibular therapist if your symptoms persist or are aggravated with the exercises.
- If you receive an open appointment date for vestibular physiotherapy, it will be valid for 3 months.
- For enquiries or appointment-related matters, please call the hotline at 6363 8000 or email to appt@wh.com.sg.



If you experience dizziness with any stroke symptoms such as loss of sensation, speech, strength, facial droop and/or double vision, please seek medical attention immediately.

