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EXERCISES FOR BALANCE RESTORATION and VESTIBULAR REHABILITATION

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1. Sit down and rotate the head from side to side and up and down for 1-2 minutes



2. Bend forward as if to pick an object from the ground. Perform this in sitting posture initially and then try it in erect posture if you can.

3. Sit and rotate the head and trunk alternately to the right and left sides for 10-15 times.



4. Sit and rotate / shurg shoulders forwards and backwards 10-15 times.

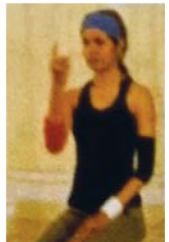


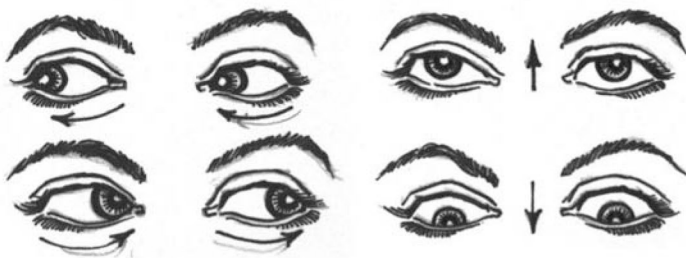
5. Hold a board with some letters written on it 18 inches in front of the eyes and then keeping a word/letter in focus rotate the head from side to side 20 times. Rotate only the head, not the board and keep the eyes fixed on the letters while rotating the head.



6. After about a week, try to keep the head fixed, focus on the letters and move the board from side to side.

7. Hold index finger 3 feet in front of the eyes and keeping eyes focused on the tip of the index finger bring the finger to 4 inches in front of the nose. Again take it 3 feet away and bring it back. Repeat this 10 times always keeping the eyes focused on the tip of the finger.





8. The seated patient should move the eyes side to side across the entire visual field horizontally 15 times and vertically 15 times. There should be no movement of the head at all and only the eyes should move. This exercise may start from day-I. The eye movement should be done slowly in the initial stages, and after a week or so, the speed of eye movement should be gradually increased.

9. The patient sits on a stool or a chair without armrests, and then stands up, keeping the eyes open and fixed to a particular object in front of the eyes and then again sits on the stool. The feet should be kept close together while standing and sitting. This, the patient repeats ten times and subsequently carries out the same task keeping the eyes closed. Within the first 7 days, the patient should not attempt this with eyes closed.



10. Stand erect with arms folded, in front of the chest and then put one foot in front of the other. Stand like this for 1 minute/

11 (a). Throw a small rubber ball from one hand to another above the head and track the movement of the ball with the eyes as it passes from one hand to another.



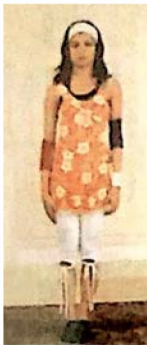
11 (b). Throw the ball to the wall and catch it repeatedly for 15-20 times tracking the movement of the ball visually.



11 (c). Pass the ball from hand to hand under the knee keeping the eyes focused on the ball as much as possible.



11(d). Walk forward, throwing the ball up and catching it keeping the eyes focused on the moving ball while walking.



12. After the patient is stable enough to walk about independently, the patient should walk straight ahead moving the head from side to side. About three minutes or so of walking like this should suffice.



13. Stand 1 feet in front of wall with your back towards the wall. Move the hip backwards towards the wall, touch it with your hips and then return back to erect posture. Do this repeatedly 8 10 times.

14. Walk in a circle 10 times clockwise and 10 times anticlockwise with eyes open. After Practicing this for 10-15 day try this once or twice even with eyes closed but have an adult attendant beside you to prevent a fall.

15. Walk around (with eyes open) 3 4 obstacles placed in room 10-12 times.

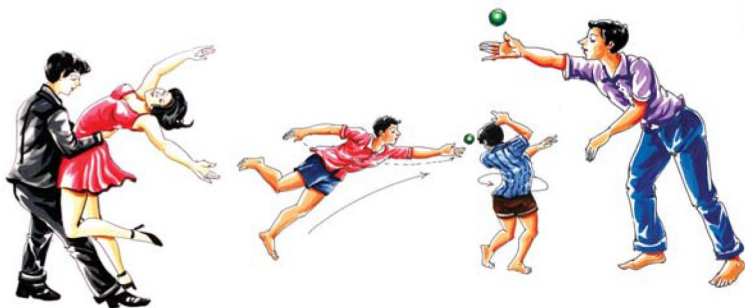


16. Walk up and down a flight of stairs with eyes open, first few days holding the railing and then without holding it.



17. Stand on a pillow, eyes open and rotate head and torso from side to side. Initially just turn to the sides. After a few days of practice, try to look backwards towards the area behind your left foot and then behind your right foot.

Activities like dancing especially games like golf & other ball games help to restore the deranged balance function.



YOGIC ASANAS FOR BALANCE DISORDER PATIENTS

Asanas are yogic posture which help to develop agility, vitality, balance, endurance and relieves stress. All of these are very important for improving balance function. The simple asanas depicted below are recommended. It's always helpful to seek the guidance of a Yoga teacher or a physical instructor for learning asanas. Some pranayams like Ujjaya Pranayam, Nadi Sodhana Pranayam, Bhastrika Pranayam, Sitali Pranayam are also recommended. For detailed methodology on the asanas and pranayams seek the guidance of a trained physical instructor.

Some recommended asanas...



PADMASANA



VRIKSHASANA

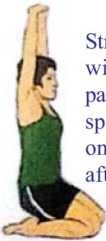


BHUJANGASANA



PASCHIMOTTANASANA

PARVATASANA :



Stretch your arms upwards over the head without bending your elbows so that the palms touch each other. Ensure that your spine is erect. Practice Parvatasana for only 10-15 seconds in the initial stages, after a few days take it up to 1 minute.

SHALABHASANA :



Lie on your stomach with the chin touching the ground. Slowly bring your hands under the legs to support them. Inhale slowly and deeply and lift both the legs together upwards, without bending the knees, as much as you can and without straining. Maintain this position for half a minute. Then slowly bring down the legs back to the starting position. Exhale slowly during this process. Rest for few seconds and breathe normally and deeply. Repeat 3-4 times.

SULABHA NAUKASANA :



Lie on your stomach with your feet together and arms beside your body. Take a deep breath in. Now exhale and lift your chest and feet off the ground with the support of folded

hands. Your eyes, fingers and toes should be in a straight line. While exhaling, come back to the ground slowly and relax.

NOTE : Do not practice this yoga if you have some diseases like asthma / heart disease / any spinal disorders.

SULABHA BHUJANGASANA :



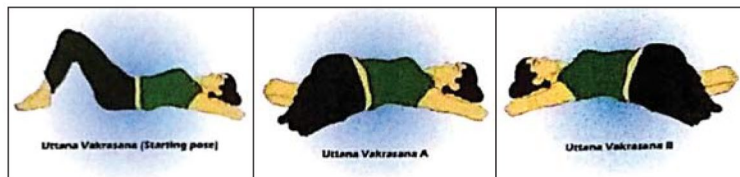
Lie straight on your stomach, keep the palms on the floor, below the shoulder blades, Now elbows to touch the middle part of the body, bend the head and neck backward. Inhale and raise the head and chest, above the naval area, upwards. Tighten the legs all over from the waist down to the toes. Hold your breath and retain the position for about 6 seconds. Exhale and gradually lower the head towards the floor. Relax your body and rest with your right or left cheek on the floor for about 6 seconds. Repeat the process 8-10 times.

TRIKONASANA :



Stand straight. Separate your feet wide apart as much as you comfortably can. Turn your right foot out 90 degrees and left foot inwards by 15 degrees. Now align your centre of right heel with the centre of your arch of left foot. Inhale deeply and as you exhale, bend your body to the right, downward from the hips, keeping the waist straight, allowing your left hand to come up in the air while your right hand comes down towards floor. Keep both arms in straight line, stretch maximum and be steady. With each exhalation, relax the body more and more. Now inhale, come up, bring your arms down to your sides, and straighten your feet. Repeat the same on the other side. **NOTE :** Do not practice this yoga if you suffer from any spinal disorders.

UTTANA VAKRASANA :



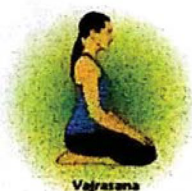
Lie down on the back with the face up keeping the legs apart and hands by the side of the body. Fold the knees. Interlock the palms of both the hands and keep it below the head. In this position, take both the folded knees on the right side and neck opposite side of the knees. Be sure that knees are kept together and foot over the foot. Now take both the legs straight and take it on the other side in the similar way.

UTTHITA DWI PADASANA :



First, lie down on your back in the relaxed posture. Keep both the legs 10 to 12 inches apart and hands by the side of the body little distance apart, palms half open half closed. Now bring both the legs together with the toes slightly stretched. Raise both the legs slowly and steadily to progressively make angles of 30, 60 and 90 degrees. These postures should be attained without taking support of the hands and without holding the breath. Return to the original posture slowly and progressively making angle of 60, 30 and finally to the ground.

VAJRASANA :



Place the thighs on the legs one over the other and the soles on the buttocks. The part from the toe to the knee should touch the ground. The whole burden of the body is put on the knees and ankles. Put both the hands straight on the knees. Sit like this, keep the trunk, neck and head in one straight line. Now start to inhale slowly then exhale. Repeat these steps for 5 minutes and gradually increase time to 15 minutes.

DISCLAIMER

This booklet is only for balance disorder patients who have consulted Dr. Anirban Biswas, Neurotologist and not for others. The exercises and asanas described herein are physically demonstrated to the patient by a trained expert in Vertigo Clinic of Dr. Anirban Biswas. All exercises shown here are standardized and approved exercises and asanas and not innovated by Dr. Anirban Biswas. They are compiled together for the benefit of the patient only. The patient is expected to have an able adult attendant beside him/her while performing the exercises and asanas to prevent a fall during the exercises. Though great care has been taken in compiling and checking the correctness of exercises and asanas. Dr. Anirban Biswas or his staff shall not be responsible or in any way liable for any errors, omissions / inaccuracies whether arising from negligence or otherwise whatsoever or any consequences arising therefrom. The beneficial effects of most of exercises have been endorsed by scientific research, but each and every exercise may not be necessary / advisable for every patient of vertigo. Refrain from performing the exercises while you are having an acute attack of vertigo. If you are having any gross instability perform only those exercises which are possible in the sitting position.

For detailed text and a video on these exercises, refer to “PHYSICAL THERAPY for BALANCE DISORDER PATIENTS” - by Dr. Anirban Biswas, published by BHALANI MEDICAL BOOK HOUSE, 11, Mavawala Building, Opposite KEM hospital, Parel, Mumbai-400 012, India. E-mail : hbhalani@gmail.com

PLEASE VISIT THE SITE <http://vertigoclinic.in/vestibular-physiotherapy> for a more detailed insight on the exercises for balance restoration and vestibular rehabilitation. For a video demonstration of the exercises visit our website vertigoclinic.in and click the page titled **VIDEOS and select **VIDEO OF VESTIBULAR EXERCISES**.**

Physical therapy provides benefits to the patients only if it is done correctly and appropriately. Erroneously done exercises actually harm the patient rather than offer any benefit. A qualified neuro-physiotherapist who is trained in handling balance disorder patients and has worked in a vertigo clinic and understands the nuances of the vestibular system is the right person for imparting proper training to balance disorder patients for these exercises. Yogic asanas and Taichi if properly done under the guidance of qualified experts are also very helpful in restoring balance. Please contact our reception for the needful.