COPING STRATEGIES COLLECTION

Your guide to exploring coping strategies that can help you manage vestibular symptoms and regain your quality of life.

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ABOUT COPING STRATEGIES

Living with a vestibular disorder can be physically and emotionally challenging, often accompanied by symptoms like dizziness, imbalance, anxiety, and nausea. This collection of articles explores a variety of coping strategies that can help people manage these symptoms and improve their quality of life. From relaxation techniques and mindfulness meditation to stress reduction practices and tips for easing nausea, these tools offer practical support for navigating the daily ups and downs of vestibular conditions. Whether you're newly diagnosed or looking to expand your self-care routine, these resources can empower you to feel more grounded and in control.

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Controlling Symptoms

By Professor Lucy Yardley

ARTICLE 022

COMMON QUESTIONS ABOUT DIZZINESS AND NAUSEA

Why do I feel dizzy and nauseous?

The balance system relies on three different senses. Using your eyes you can see where you are and where you are going. Using the sensors in your body you can feel where you are and how you are moving. And the balance organ in your inner ear (which doctors sometimes refer to as the vestibular organ or labyrinth) senses whenever your head moves.

Your brain acts like a computer, combining signals from these three senses to give you a stable picture of the world and control your head, body and eye movements. If any part of this balance system is giving out unusual or faulty information then you may feel dizzy, disoriented or unsteady.

When your brain senses that your balance system is not able to give you a stable picture of the world, it send signals to the system which controls automatic body reflexes to make you feel or actually be sick. Nobody knows exactly why dizziness triggers nausea or sickness, but it may be that your body thinks the dizziness is due to something you have eaten, which your body is trying to get rid of.

How can stress affect my dizziness and nausea?

Recent studies have shown that your body is less able to cope with dizziness when you are under stress, and so you may become more dizzy and sick than if you were stress-free. One reason for this is that the system which triggers nausea and sickness controls all automatic body reflexes, including the 'fight or flight' stress reflex. When you are under stress your body automatically gets ready to fight or run away, by triggering lots of changes such as making you breathe faster, speeding up your heart, and pumping blood to your muscles. The side effect of these changes is that you tend to get dizzy and sick

more easily , which is why even healthy people often feel dizzy and sick when they are under great stress (e.g. sudden injury). So if your balance system is not working normally and you are under stress you will feel twice as dizzy and sick.
Another problem for people with dizziness is that their symptoms can cause stress, but then stress can actually make the symptoms worse. You may have noticed that you often feel more dizzy when you are under stress. The reason for this is that when your brain is busy coping with the stress it is less able to also deal with the faulty signals from your balance system.



What can I do to reduce my dizziness and nausea?

The bad news is that there is no medicine which can make the balance system work normally. Your doctor may be able to give you tablets to ease the dizziness and nausea, but these will not cure the problem, and should not be taken all the time. The good news is that you can help to reduce your dizziness and nausea by reducing your stress levels, using the methods in this book.

How do the methods in this book reduce dizziness and nausea?

One way to stop stress making your dizziness and nausea worse is to use the methods in this book which block the fight or flight reflex. These methods are controlled breathing (which slows down you breathing and reduces nausea) and relaxation (which works by relaxing your muscles and slowing your heart rate).

Another way to stop stress making your dizziness and nausea worse is to try to reduce the stress itself. You can do this by trying to change your lifestyle to make it less stressful (stress management). If it is the dizziness which is causing you most stress, then you may find it helpful to get your mind off your symptoms using methods of thought control. If your life and the way you think is free of stress, then your body will not add stress symptoms to your illness.

How can I tell if these stress reduction methods will help me?

All the methods of stress reduction in this book have been used for many years to treat patients with severe incurable symptoms which are made worse by stress, such as pain. Scientific studies have shown that these methods do help to reduce symptoms and improve quality of life. To find out whether these exercises are right for you, simply try out the exercises! They certainly

cannot do you any harm – it is only by trying them that you will know for sure whether or not they can help you.

CARRYING OUT METHODS OF STRESS REDUCTION: HOW TO CHOSE THE RIGHT STRESS REDUCTION METHODS FOR YOU

The causes and effects of stress are different for different people. The page tells you how to choose the stress reduction methods which will suit you.

For all the methods you will need to find ten minutes once or twice a day to work on reducing your stress. Decide now on times when you can put these methods into practice each day, and write the times down in the diary at the back of this book. Next choose a place to do this – somewhere that you can be relaxed and quiet, without any interruptions.

STRESS MANAGEMENT TECHNIQUES

- Controlled breathing
- Relaxation
- Thought control
- Reduce life stressors

Now you need to choose which methods to try. Read the list of stress methods on the next page, and tick the ones you will try first in the diary at the back of this book – don't try to do more than two at first. Write down your levels of stress and symptoms at the same time.

Do this once every week, so that you can see if the methods you are using are helping to reduce your stress and symptoms, and can decide what methods you will try the next week. All these methods take time to learn, and you will have good days and bad days at first – if you keep trying you will soon find one that works for you.

Controlled breathing

Controlled breathing can be helpful for everyone who feels nausea or sickness. Also, if you often feel out of breath, and find yourself panting, sighing, gasping or yawning for no reason, then you are over-breathing and need to practice slower breathing.

Relaxation

You need to carry out relaxation exercises if your muscles are tense. Check now whether your
jaw and hands are relaxed. Try shrugging your shoulders and moving them backwards and forwards. If your teeth are clenched together, your hands are tense, or your neck and shoulders feel stiff, then relaxation will help you.

Thought control

If you find it difficult to stop thinking about your symptoms, or feel anxious or unhappy about them, then you may be helped by some methods of thought control which people with other symptoms, such as pain, have found useful.

Stress management

If you have a lot of stress in your life as well as your dizziness and nausea, or if you find that the dizziness gets worse in stressful situations, then you may find it useful to try methods of reducing stresses which are adding to your problems.

More details of all these methods are given in the following pages.

CONTROLLED BREATHING

First sit or lie down in a comfortable place, loosen any tight clothing, and close your eyes. Put one hand on your chest and one on your stomach. Avoid breathing from the top of your chest – try to keep this still, and just let air in by allowing your stomach to gently rise and fall. Breathe through your nose and allow two seconds as you breathe in and four seconds as you breathe out (you may need to time yourself at first).

At first controlled breathing takes effort and so you need to practice it in a quiet place every day, so that it starts to be a habit which you do not need to think about.

If you find it difficult to breathe this slowly and feel as if you are not getting enough air, then you are over-breathing. This means that you will need to reset the level of oxygen your body is used to. You can do this by holding your breath for 10 seconds. Do not take a deep breath before or after you do this – your body needs to get used to less oxygen.

After you have practised controlled breathing in a quiet place for a few weeks you can start to slow your breathing as you go about your daily life. Practice doing this every day, whenever you feel dizzy or nauseous, or if you start to have symptoms of over-breathing.

RELAXATION

First sit or lie down in a comfortable place, loosen any tight clothing, and close your eyes. It is easiest to relax your muscles if you tense them first. So taking each part of your body listed below in turn, first tense up that body part for five seconds, and then say to yourself 'relax' and let the tension go all at once. Repeat for any part of your body which tenses up again.

When you do this relaxation exercise, notice how your muscles feel when they are tense and when they are relaxed. Enjoy the feeling of being

relaxed. Don't worry if you have worrying or distracting thoughts – just let them come and go. You may find it helps to imagine you are in the most relaxing situation you can think of, such as lying in the sun. Some people find it helps to listen to a relaxing tape, such as gentle music, or waves on a beach. Or you can make yourself a tape of these instructions.

Like controlled breathing, relaxation gets easier when it is a habit you do not need to think about, so you must start by doing it in a quiet place every day.

PROGRESSIVE MUSCLE RELAXATION

- Curl your toes (left, then right)
- Pull your stomach in
- Make a fist (left, then right)
- Hunch your shoulders
- Scrunch up your face
- Pucker your forehead

After you have practiced relaxation for a few weeks you can start to try to relax any part of you that feels tense by just saying to yourself 'relax', without having to tense your muscles first. When you can do this easily in a quiet place practice doing it in your daily life whenever you feel tense, dizzy or nauseous.

THOUGHT CONTROL

The problem with stress is that it is very hard to keep your mind off it. You find that you cannot help thinking about problems, or paying attention to symptoms. This is a natural reaction, which is useful if the problem can be solved or you need to be alerted to illness. But if you have long-term problems or illness then thinking about them often just makes them worse, and you may need to practice new ways of thinking.

DISTRACTION

If you try to stop thinking about something you will just think about it more – so the best way to distract yourself is to fill your mind with something else. If you feel unwell or stressed, you will feel less bad if you find ways to keep your mind busy with things that interest you. So as soon as you feel stressed or sick, try to find something else to think about – plan what you will do later, look out of the window, watch a good TV program, ring a friend or read the paper.

THOUGHT CHANGING

It is hard to ignore worries, but often it is the things we think that cause stress. So if you can change how you think you will feel less stress.

Take time every day to write down the thoughts which cause you stress. Then ask yourself these questions:

- Are the thoughts worse than your present situation?

- Do you worry about things that may never happen?
- Are you expecting too much of yourself?
- Do you worry if you cannot manage to do everything well, or please everyone?
- Are you worrying about things which you cannot change?
- Do you spend your time wishing that you were not ill, or thinking about the bad things in your life?

If you realize that the answer to any of these questions is 'yes', you have made the first step to stopping those stressful thoughts! Think of reasons to think something different. You could think of all the good things in your past and present, and that may happen in the future. Try talking over your worrying thoughts with a family member or friend – they will often be able to help you to see other ways of thinking. Or imagine that your best friend was thinking this way – what would you say to them?

STRESS MANAGEMENT

Sometimes stress is due to problems which you can solve. These are some methods to help you make your lifestyle less stressful.

Planning



You can plan ways to make a difficult situation less stressful. Take time every day to write down one situation which caused you stress. Next write down ways you could try to change or cope with this situation. Decide which way of changing the situation is best and easiest, and work out how you can carry it out. You need to think about what might stop your plan from working, so that you can also plan to overcome any setbacks.
Then try this method of coping with the situation next time it happens. If your plan does not work out quite right the first time, just think about how to improve it and try again.

Time management

Many people find it stressful to cope with all the things they have to do. If you have this problem, first of all write down each day how you have spent your time. Then think about what things are most important to you just now, and how you would spend the time on your ideal day. This will help you to work our what you should cut down or cut out. Don't forget to allow time for rest, and to relax with other people.

Make a list of what needs to be done and when. Then just get on with the jobs which you have listed to do now – you can stop worrying about the things on the list which can be done later, and will feel good when you can tick of the things which you have done!

It is important not to worry if you find you cannot do everything you want when you want to. This just means that you have found the cause of your stress – you need to allow a bit more time for everything to get done.

Doing what you want

Compare the list of things that you do and the things you want to do. Are you doing things for other people that you do not really want to do, and do not need to do? If so, to reduce stress you need to learn how to say 'no' from time to time.

If you find this hard to do, you need to plan ahead what you will say and do and stick to it. There is no need to get angry or to annoy people – you need to talk over the problem calmly and try to find a plan which works for everyone.

ABOUT THE AUTHOR

This booklet was written by Professor Lucy Yardley and produced by the University of Southampton with funding provided by the Ménière's Society. It is recommended for use only after a qualified medical doctor has confirmed that the exercises are safe and appropriate for the individual who will carry them out.

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The Meniere's Society is the UK registered charity providing support and information to those with dizziness and balance disorders (www.menieres.org.uk).

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Vestibular Triggers

By Danielle Beatty, DPT

ARTICLE 112

INTRODUCTION

Vestibular disorder symptoms of vertigo--dizziness, headache, fatigue, tinnitus (ringing of the ears), and imbalance—can be triggered in various ways such as:

1. Diet
2. Environmental factors
3. Lifestyle choices
4. Habits
5. Travel
6. And more...

Because triggers differ for each individual and diagnosis, logging and journaling symptoms by intensity, type, diet, exercise, activity level, sleep habits, etc. may help identify patterns or factors that may be playing a role in causing or exacerbating your symptoms.

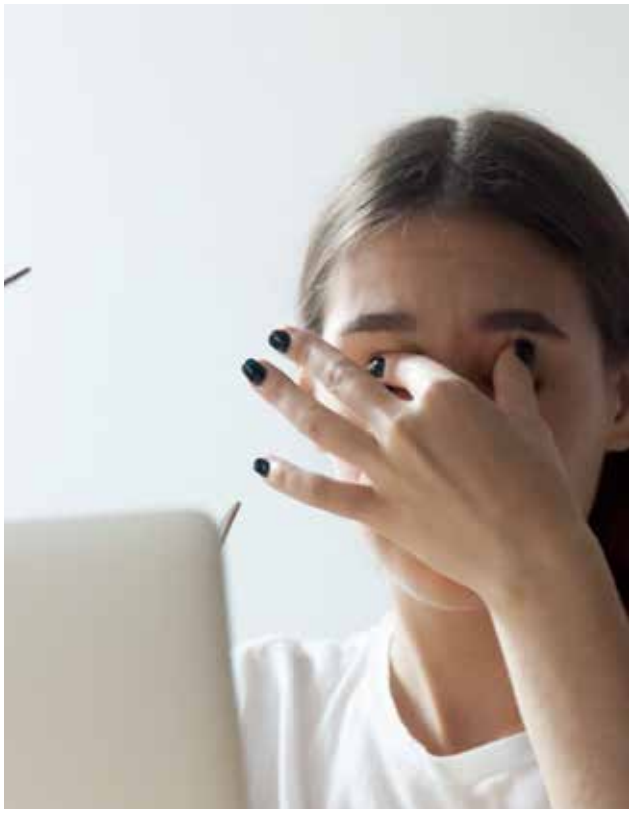
DIET

Diet plays a large role in overall health, especially for some vestibular patients. A diet high in sugar, caffeine, and/or alcohol can impair balance and increase dizziness symptoms. Not drinking enough water may also worsen symptoms. Individuals who suffer from vestibular migraine often noticeable food triggers, which can include monosodium glutamate (MSG), aged cheeses, red wine, beer, and chocolate. Meniere's Disease can be affected by excessive sodium (salt) intake, which affects fluid levels in the inner ear. Keeping a food journal may identify possible food influences on triggers.

ENVIRONMENT

Environmental factors may also trigger vestibular symptoms. For many vestibular patients, busy and bright environments like malls and grocery

stores can cause dizziness. Others find that lighting, odors, noises, or patterns (on carpets, for example) can be problematic. Riding in vehicles can often provoke symptoms of motion sickness, which can be exacerbated by traveling on windy roads, repetitive starting/stopping of the vehicle, riding on congested highways, or excessive elevation changes. Air travel, with its changes in barometric pressure, can be especially problematic. Some individuals notice symptoms associated with changes in weather, or when allergens, like pollen, are present.



HEAD TRAUMA/POSITIONING

Head trauma can trigger vertigo with positional head changes. Some individuals note an association between their dizziness and neck pain/stiffness. Repetitive or extreme motions of the head (e.g. tipping your head back to change a light bulb) can also provoke symptoms.

READING

Reading text, whether digitally or on paper, may trigger symptoms, especially for those with migraine or light sensitivity.

ILLNESS/INFECTION

Dizziness can often be triggered or made worse when a person is ill, such as from an upper respiratory infection.

MEDICATIONS

Some medications may cause dizziness, tinnitus, or malaise/imbalance, so discussing these with your physician and pharmacist is beneficial.

HORMONES

Hormonal changes may also be relevant, so this is a consideration for women undergoing menopause and those who suffer from migraines.

LIFESTYLE FACTORS

While some of the triggers may be out of an individual's control, thankfully others are not. Lifestyle factors, such as sleep and exercise can affect overall dizziness frequency and intensity.

Sleep

Sufficient sleep is fundamental for daily functioning, and not getting enough quality sleep can affect energy levels and overall dizziness.

Exersize

Individuals who do not exercise regularly may also report increased symptoms.

ANXIETY

Dizziness can cause anxiety and stress, and increased anxiety and stress levels can further trigger dizziness symptoms, causing a vicious cycle.

DISCLAIMER

This list is not all-inclusive. You may be triggered by other issues, so make sure to talk to your doctor, physical therapist, or other health care professional for help in identifying your individual triggers and deciding on the best way to manage them.

For more information see the attached infographic or visit **vestibular.org**.

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VESTIBULAR SYMPTOMS TRIGGERS

Triggers are stimuli that can aggravate and "awaken" vestibular symptoms. While triggers do not cause vestibular disorders, controlling triggers can help manage pain, tinnitus, nausea, dizziness, vertigo, and other symptoms. Triggers vary significantly person to person and illness to illness, and each person has patterns that can be identified and mitigated.

PHYSIOLOGICAL

- Hormonal changes
- Inner ear pressure, altitude changes
- Body/head movements–up and down or side to side
- TMJ aggravation
- Head/neck/facial pain or injury (can also be a cause)

PSYCHOLOGICAL

(These triggers can also be vestibular disorder symptoms.)

- Stress
- Anxiety
- Emotional/physical trauma

LIFESTYLE

- Sleep problems/insomnia
- Fatigue or exertion
- Lack of/extreme exercise
- High/low sodium levels, dehydration
- Alcohol, nicotine and/or recreational drugs
- Diet–high tyramine or histamine levels
- Food allergies/sensitivities
- Biggest food triggers: natural flavors (MSG), aged cheeses/meats, chocolate, caffeine, citrus (see migraine or Meniere's diets)

ENVIRONMENTAL/SENSORY

- Barometric pressure changes
- Humidity
- Weather changes
- Allergies
- Lighting–fluorescent, strong sunlight/dappling, darkness
- Loud noise–music, alarms, crowds
- Air pollution
- Motion (car, walking, biking, etc.)
- Wide open spaces or spaces with overwhelming stimuli

TRACKING TOOLS:

Patient Logs



Migraine Buddy App

Symptom Trigger Tool
Rewiring Tinnitus Trigger Tool

RESOURCES:

The Dizzy Cook (Alicia Wolf) thedizzycook.com
Timothy C. Hain, MD dizziness-and-balance.com
Heal Your Headache book by David Buchholz
True Kaylaisms (Kayla McCain) truekaylaisms.com
Mind Over Meniere's (Glenn Schweitzer) mindovermenieres.com
VeDA (Vestibular Disorders Association) vestibular.org

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Relaxation Techniques

By Lisa Farrell, PT, PhD, ATC

Relaxation is an important part of overall health because it reduces the negative impacts of stress and improves self-confidence. Meditation, progressive muscle relaxation, and visualization are some of the techniques used to increase relaxation. Read more for tips about how to implement these relaxation techniques in your day to day.

HOW DOES IT WORK?

Relaxation reduces stress by:

- Decreasing heart rate
- Decreasing blood pressure
- Slowing respiratory rate
- Increasing blood flow to the major muscle groups
- Decreasing muscle tension
- Improving concentration
- Improving self confidence

TYPES OF RELAXATION TECHNIQUES

- Meditation: Focusing the mind on a word or phrase and letting go of other thoughts.
- Progressive Muscle Relaxation: Focus on slowly tensing then relaxing each muscle group.
- Visualization: Visualize yourself in a peaceful, relaxing place.
- Other relaxation techniques include hypnosis, massage, deep breathing, positive affirmations, mantras, aromatherapy, tai chi, yoga, art or other creative endeavors.

TIPS



- Common symptoms of a Ménière's disease attack do not reflect the entire Relaxation takes practice! Even if you aren't conscious of feeling anything, the physiologic effects are still occurring.
- Each technique does not work for everyone. You may have to try several techniques before you find the best one for you.
- Don't force yourself to relax; let it happen naturally.
- Make yourself comfortable. Position yourself on chair with neck and back support, a firm bed, or a comfortable mat on the floor. Choose a position that you can maintain for at least 10 minutes.
- Relax in a quiet environment that is distraction-free.
- Relax periodically throughout the day. There are many apps that will remind you to meditate at intervals. Some (e.g. Insight Timer) will also show you how many other people are meditating at the same time, which can be motivating and make you feel part of a community.
- Set a timer so you don't have to worry about how much longer you have to meditate.
- Meditation is becoming mainstream. Don't feel embarrassed to talk about your meditation practice with friends and coworkers. The more open you are about it, the easier it will be to incorporate it into your life. You may even find that others have a meditation practice as well, or want to cultivate one.
- Seek out a group that you can meditate with. There are many local meditation groups that can be found through Meetup.com.
- Take a yoga or Tai chi class. Many studios offer "low-impact" classes or classes for people with balance problems (e.g. seniors, MS patients).

OTHER RESOURCES

There are many apps and YouTube videos that provide guided meditations, such as Calm App and Insight Timer.

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Stress Management

By The Vestibular Disorders Association

Stress management is an important part of minimizing the long-term negative health outcomes of chronic stress. Talking to a counselor or therapist can be a powerful way to improve stress management. There are also a number of exercises and practices that can be included in daily life to reduce the impacts of stress.

STRESS IS A PART OF LIFE

Stress is an automatic response for our body to protect itself from threats. This "fight or flight" sympathetic response is beneficial if you are in a life-threatening situation or require a short-term force of motivation. But, if you experience stress over a prolonged period of time, it could become chronic. Chronic stress can have serious consequences for your brain, body, and mind. In this article, you will learn relaxation techniques to help you manage stress.

How we handle stress makes a big difference. Finding what works best for you is key to helping you reduce stress.

RELAXATION CAN REDUCE STRESS BY:

- Decreasing heart rate
- Decreasing blood pressure
- Slowing respiratory rate
- Increasing blood flow to the major muscle groups
- Decreasing muscle tension
- Improving concentration
- Improving self confidence



RELAXATION TECHNIQUES

Meditation: Focusing the mind on a word or phrase and letting go of other thoughts.

Progressive Muscle Relaxation: Focusing on slowly tensing then relaxing each muscle group.

Visualization: Imagining yourself in a peaceful, relaxing place.

TIPS TO RELAX

RELAXATION TAKES PRACTICE

Don't force yourself to relax, let it happen naturally.

- Relaxation takes practice. Even if you aren't conscious of feeling anything, the physiologic effects are still occurring. Tune into what your body is telling you.
- Find the technique that works for you. You may have to try several techniques before you find the best one for you.
- Don't force it. Relaxation happens naturally.
- Get comfortable. Sit in a chair with neck and back support, or lay on a firm bed, or try a mat on the floor. Choose a position that you can maintain for at least 10 minutes.
- Shhhhhhhhhh. Find a quiet environment that is distraction-free.
- Relax throughout the day. Some apps will remind you to meditate at intervals. For instance, Insight Timer (insighttimer.com) will also show you how many other people are meditating at the same time, which can be motivating and make you feel part of a community.
- Meditate with a group. There are many local meditation groups that can be found through Meetup.com.
- Try yoga or Tai chi. Many studios offer classes for beginners and/or classes for people with balance problems, including seniors and multiple sclerosis (MS) patients.
- Pray. A growing body of research suggests prayer helps some people cope better, heal faster from illness, and experience increased health benefits and well-being.
- Practice mindfulness. Adapt your attitude and approach to think successful and beneficial thoughts.

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Managing Fatigue

By Yonit Arthur, AuD

ARTICLE 114

OVERVIEW

While fatigue is a common and distressing symptom that affects many people with vestibular disorders, you can learn to manage your fatigue and improve your quality of life. This article helps explain what factors could be contributing to your fatigue and provides an 8 step guide to managing it.

People with vestibular disorders commonly report fatigue as one of their symptoms. Follow this step-by-step guide to learn how to manage your fatigue.

STEP 1: UNDERSTAND FATIGUE

Fatigue is a general term that describes a wide variety of symptoms, all having to do with feeling less energetic and alert than you'd like to be. For some people, fatigue may mean having less endurance for daily or new activities. For others, it may mean feeling generally unwell or low energy. It may also mean having symptoms like "brain fog" in which normal activities take more effort than they used to.

Why Are People with Vestibular Disorders Vulnerable to Fatigue?
To understand why vestibular disorders so often lead to symptoms of fatigue, it's helpful to understand how the vestibular system works. When no disorder is present, the eyes, ears and sense of touch (proprioception) collect a huge amount of information from the outside world. They send this information to the brain, which sifts through the information to pull out what's important. The brain puts all the important information together (integration) and sends signals to the body telling it how to respond.

Central Nervous System Is Working Harder
When a vestibular disorder occurs, one of the steps in that process is not working correctly. In some disorders affecting the sensory systems (such as Meniere's, BPPV and vestibular neuritis), the senses are sending incorrect or

confusing information to the brain. Other disorders affect the central nervous system itself (such as vestibular migraine and PPPD). In those instances, the senses are sending good information but the brain itself is not processing it correctly. In both cases, the brain is forced to do more work to sift through the information it's getting from the senses to filter out the noise. People with vestibular disorders have to concentrate harder and use more energy just to figure out where they are in space, leaving them with less energy to perform daily activities.

PRO TIP:
Practices like mindfulness meditation, stress reduction techniques, and self-hynosis have been shown to alleviate fatigue, chronic pain, and stress.

Chronic Stress
Another factor that can affect people's energy levels is the general state of their central nervous system (brain and spinal cord). When someone is suffering from repeated or prolonged episodes of stress, which is certainly the case for many people with vertigo, dizziness and balance issues, the body enters a state of chronic stress. Chemical changes within the central nervous system in response to chronic stress make the body less sensitive to hormones help you feel alert. This leads to feelings of fatigue and dullness.

Emotional Responses and Social Factors
Finally, vestibular disorders take an emotional toll on many people. Since vestibular disorders are often a chronic condition, sufferers often struggle with feelings of guilt or loss when they are not able to perform the same way they did before they started having symptoms. That can be compounded by the reaction of other people. Since vestibular disorders are "invisible," people with vestibular disorders may perceive that others are judging them for their reduced energy levels or capacity for activities.

STEP 2: CREATE A FORWARD-THINKING MINDSET

Are you living in the past and stuck thinking about what you used to be able to do? You might feel trapped there, which can further drain your energy. Using cognitive-behavioral tools to help you focus on the present instead of the past can be very helpful in helping you manage your fatigue.

Use Empowering Words
One tool that is simple to use is to change the way you talk about your fatigue- either internally or to others. When we make negative statements, we also reinforce our negative feelings and beliefs. Words that can make a difference in how you approach your fatigue are "yet," and "when." Tack "yet" on to statements that you make to yourself and others about your fatigue. For example, "I don't have the energy to play with my kids/grandkids- yet." Instead of, "I haven't found a way to manage my fatigue and I never will," practice saying, "I haven't found a way to manage my fatigue yet." And instead of saying things like, "If I ever have the energy to go dancing," practice saying, "When I have the energy to go dancing."

Practice Self Compassion
Think of your kindest and most compassionate friend or family member. Imagine the most empathetic things that he or she would say to you when you're not feeling well, and write them down. Then, at times when you're feeling down about your fatigue, read those statements out loud to yourself. It might feel odd at first, but being compassionate to yourself is an evidence-based way of managing many different negative emotions and helping yourself change your mindset.

If you want to learn more about self compassion and learn how to do it, take a look at "The Self Compassion Workbook" by Kristin Neff.

Get Professional Help
Some people will benefit from professional guidance from a mental health professional in learning how to move forward. Research shows that a trained professional with experience in cognitive-behavioral therapy and chronic conditions may help you manage fatigue and other symptoms from your vestibular disorder.

STEP 3: KNOW YOURSELF, KNOW YOUR TRIGGERS

For many people with vestibular disorders, fatigue is an ever-present companion. For others, fatigue only occurs after a vertigo attack. To manage your fatigue successfully, you have to know yourself, what seems to trigger your fatigue, and your energy level patterns. That will enable you to make a plan of action. If you haven't already, it's a good idea to keep a diary for a few weeks. While you are journaling, keep track of what your energy levels look like day-to-day. Do your energy levels fluctuate (go up and down)? What can you identify about patterns in your fatigue?

Three Big Categories of Contributors to Fatigue
This list is to get you started thinking about what may be contributing to your experience of fatigue. Some of your triggers or contributors may fall into multiple categories- and that is ok. Once you have logged your fatigue, see if you can identify and make a list of the factors that most likely contribute to your fatigue. You might only have one, or you may have many. There is no right or wrong list of triggers. But most people find that even if the biggest contributor is the most obvious (e.g. vestibular attacks), they are also affected to a lesser degree by other triggers (e.g. stress and feeling isolated).

LIFESTYLE & BIOLOGICAL CONTRIBUTORS
These are factors that relate to your body's daily physical functions. Examples include:

- Vestibular attacks such as migraines, Meniere's episodes or BPPV
- Inadequate or poor quality sleep
- Dehydration

- Food and/or drink
- Hormonal changes
- Activity Contributors

These are factors that relate to what you do throughout your day.

Examples include:

- Positional changes, such looking up or down
- Movements, such as bending over, turning your head, lying down in bed or getting up quickly
- Visual, such as being in busy rooms with lots of people, looking at fans or windshield wipers, going to shopping malls, or being in a grocery store aisle
- Activities of daily life, such as working at a computer, taking care of kids or pets, washing dishes, gardening or vacuuming the floor
- Social-Emotional Contributors

PRO TIP:
Scheduling activities during times when you feel most energetic and breaking tasks into management segments can help you stay within your energy limits and reduce fatigue.

These are factors relating to your mood, level of social activity and level of social support from loved ones, friends, co-workers, bosses, and any other important people in your life. Examples include:

- Stress/anxiety
- Depression
- Feeling isolated or unsupported
- Having to socialize and talk to lots of people
- Having a doctor who tells you your symptoms are all in your head
- Not enjoying your job

STEP 4: IDENTIFY FATIGUE TRIGGERS YOU CAN MODIFY

Looking back at the list of contributors to your fatigue, identify the ones you can eliminate, control or plan around.

Controlling Biological Contributors
In many cases, triggers falling into this category are ones that you can modify with medical management or changes to your lifestyle. Triggering foods or drinks can be reduced or eliminated.

Dehydration can be mitigated by drinking more fluids throughout the day. Sleep disturbances can be helped by ensuring you get sunlight in the morning, turning off bright lights and screens an hour or two before bed, and having a set sleep/wake schedule. Hormonal imbalances may be helped by exercise

or may need medical management. Which of your biological triggers would you be able to control with simple lifestyle changes and/or with a physician's help?

Controlling Activity Contributors
Of course, you don't want to eliminate positions, movements or activities from your life! That said, if you have several triggers from this category, it's wise to create a strategy for dealing with them. If you know, for example, that several household chores trigger symptoms, you could spread them out throughout the week so you're not putting as much strain on yourself at once. A good vestibular therapist can also work on some of these triggers with you to help reduce your sensitivity to them (see Step 5).

Controlling Social/Emotional Contributors
For factors in this category, spend some time finding out your tolerance or capacity for various triggers. Some triggers may be very draining, and others less so, but when they happen at the same time, they might cause a lot of fatigue. For example, having a stressful day at work and having to go to a big social gathering might be more draining than just going to a social gathering. What factors affect how much fatigue you feel in response to your triggers?

Below, you will find some lifestyle suggestions that may help you manage some of these factors.

Managing Stress, Anxiety and Depression

- Mindfulness meditation (many free meditations are available on YouTube, including this dizziness specific body scan)
- Self hypnosis (Reveri is a free self hypnosis app developed by Stanford professors and is available on the app store)
- Grounding/anchoring (see this example from Mayo Clinic)
- Deep breathing (see an exercise I often give dizzy patients here)
- Take a walk outside
- Spend time with a pet
- Do yoga or other exercise
- Talk to a friend
- Garden or just spend time outside
- Read a favorite book
- Listen to music
- Seek medical management if you are having difficulty coping

Socializing

- Be aware of what your other triggers are (visual, noise, etc.) and control those as much as possible
- Stand in a wide stance- it is less work for your vestibular system to stand in this position
- Find a quieter corner- loud noise/lots of activity are much more

stimulating and can lead to faster onset of fatigue

- Face the wall, not the crowd, when talking to friends- a bustling room full of activity is harder on your eyes and brain than still objects
- Take recharge breaks- find a quiet place to breathe, sit or meditate once you feel symptoms to allow your body to recover
- Many people with vestibular orders find it easier to socialize in small groups and in quieter, less busy environments. For example, it might be easier to enjoy time with friends at a small restaurant versus at a large, busy one.

STEP 5: MANAGE MOVEMENT & VISUAL TRIGGERS

Fatigue and episodes of dizziness sometimes go hand-in-hand; other times, they may not seem related. However, for people with vestibular disorders, certain movements, positions and visual stimuli may be more likely to trigger fatigue. Even when you are not experiencing actual dizziness, vertigo or balance symptoms, your brain often has to work harder just to know where you are in space and keep you stable, as was discussed in Step 1. This is why it is so important to determine if you have movement or visual triggers, and to address them. For many people with vestibular disorders, vestibular rehabilitation therapy is very helpful in teaching your brain to adapt or get less sensitive to those triggers. This may help reduce the effort your brain has to put into stabilizing you, and make you less prone to having fatigue. This is true even for people with vestibular disorders that cause episodes of severe vertigo, such as Meniere's Disease and vestibular migraine. Many people with such disorders find themselves more prone to fatigue even between episodes because their vestibular systems don't fully recalibrate between episodes. Vestibular rehabilitation therapy can help address such symptoms.

PRO TIP:
Supplements such as magnesium, vitamin B12, vitamin D, and NADH have been explored for managing chronic fatigue. Consult your physician to determine if these or other supplements might benefit you.

STEP 6: PLAN!

Now you've figured out what your fatigue triggers are, how they relate to each other and how they affect you. You also have some ideas about which ones you can manage by yourself or with others' help. The next step is to put everything you've learned into action by creating a weekly plan for managing your fatigue. Create a schedule for yourself in which you plan around triggers. In general, you want to ensure you always have the recovery time you need between triggers. Some lifestyle modifications or stress reduction strategies, like talking a walk, exercising or talking to a friend, should also be scheduled in your plan. Once you've tried it out for a week or two, you can modify it based on what you found. Did you overdo it on one day and end up more fatigued? Did you find you had more capacity than you thought you did?

Another option is to create a "graded exposure" plan. The idea of graded exposure is to slowly increase your tolerance for certain activities systematically over time. In other words, you pick a goal activity and slowly increase the amount of time you spend doing it. Here's how to do it:

- Pick ONE goal activity- for example, walking outside daily for 30 minutes.
- Pick a starting point by writing down how long you can do this activity with your present symptoms. If your symptoms come and go, average together how long you can do this activity on a good day vs. on a bad day.
- Schedule your activity, even if it's just for a few minutes a day, and stick to your schedule. Over time, your brain and body will become accustomed to the activity.
- After a week or two of successfully completing the activity, add 2 minutes.
- Continue doing your activity, slowly adding on time week over week until you reach your goal.

STEP 7: COMMUNICATE WITH OTHERS

There is no way around it- we are social creatures (yes, even you introverts out there!). How others respond to your vestibular disorder and accompanying symptoms can have a profound effect on how well you cope with them. How many of you have been told that your fatigue is "all in your head" or that you need to just push through? These unhelpful (albeit well-meaning) approaches can often raise feelings of guilt, shame or even grief over your capacity for activity. As you now know, those can lead to even more symptoms. Therefore, it is very important that you advocate for yourself in order to receive the social support you need.

One impactful method is to educate those around you about vestibular disorders. You can point them to the Vestibular Disorders Association website, ask them to attend a support meeting with you, or perhaps even share articles that explain how your symptoms affect your life and why. Sometimes, people just don't have the facts, and sharing them might help them relate to you differently.

Another approach is to help others understand how they can be supportive. Oftentimes, those that care about you want to help- they just don't know how. Take a moment to think about someone in your life who did respond in a helpful way to a symptom you've had. If you haven't had anyone respond in a helpful way, you can think, again, of the kindest, most empathetic person you know. Make a list of the helpful responses you've had, or wish you'd had. Here are a few ideas to get you started:

- Checking in during activities or situations that are difficult for you ("We're in a noisy restaurant and I know that's hard for you- how are you doing right now?")

- Providing grounding through physical touch or kind words
- Taking breaks with you during triggering activities
- Having a signal to let a friend or loved one know when you need a break
- Offering to attend a yoga or other exercise class with you
- Attending a support group with you
- Choosing venues that are more "vestibular friendly" for activities

As you can see, these are much easier to put into action when you know which contributors are most affecting your fatigue! Once you've made your list, have conversations with the key people in your life who can put them into action.

STEP 8: OTHER STRATEGIES

While the gold standard treatments for vestibular disorders and fatigue remain medical treatments, physical therapy and cognitive-behavioral therapy, new research is exploring alternative treatments. Most of this research is in the realm of chronic fatigue and pain management rather than vestibular disorders, but at least some researchers theorize that they work through changing patterns of activation in the nervous system. If this is true, these complementary approaches may be worth exploring.

- Supplements such as magnesium, vitamin B12, vitamin D and NADH have been explored for use in chronic fatigue syndrome. Ask your physician if these or any other supplements may help with your fatigue.
- Mindfulness meditation, mindfulness-based stress reduction and self hypnosis all have evidence supporting their use for managing fatigue, chronic pain and stress.
- Some research suggests that acupuncture may reduce fatigue in patients with cancer and chronic fatigue syndrome. It has also been shown to reduce pain in some patients with chronic pain.
- Massage and chiropractic care have evidence supporting their use for chronic pain.

CONCLUSION

The steps outlined in this article should help you develop your own fatigue management plan. It will take some work, but take confidence in knowing that you have many tools to help you. While fatigue is a common and distressing symptom that affects many people with vestibular disorders, you can learn to manage your fatigue and improve your quality of life.

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Meditation and Mindfulness

By Lisa Farrell, PT, PhD, AT, C

BUSTING THROUGH MISCONCEPTIONS AND BUILDING OPPORTUNITY FOR SUCCESS

When meditation comes up in conversation people often say, "Oh, I tried that, and afterward, I felt so calm and relaxed." If this has been your experience, that's wonderful! Feeling calm and relaxed can be one of the many benefits that occur from practicing meditation.

However, people also say, "I can't meditate. It's too hard for me." If this has been your experience, you are not alone. You might have the expectation that your mind should be quiet and your body relaxed during meditation. When it isn't, you feel like you're doing it wrong or it isn't working.

Other common reasons people give for not meditating include:

- "I can't sit still long enough to do it."
- "I don't have time to meditate."
- "It's not for me because it is too weird."

Even though social media has been a game changer for providing easy access to guided meditation, these resources can be off-putting if they don't provide clear guidance. Lack of proper instruction and clear explanation are frequently obstacles for a successful meditation practice.

Meditation is a mind-body practice with a wide variety of techniques from both ancient and modern times. Some of the current popular forms of meditation are Mindfulness Meditation, Transcendental Meditation™, Vipassana (or Insight) Meditation, Metta (or Loving Kindness) Meditation, as well as movement-based meditations like Yoga, Tai Chi, and Qi Gong. What

unites the various schools of meditation is the intention to build attention and awareness by observing and experiencing the present moment.

This article focuses on Mindfulness Meditation and covers its definition, importance, and best practices. Also, some insights and suggestions for using this type of meditation are provided for those dealing with the consequences of vestibular dysfunction.

Beyond helping to calm the mind, regularly practicing meditation has many benefits, including:

MEDITATION BENEFITS
Encourages creativity and innovation
Fosters self-awareness
Cultivates compassion for oneself and others
Activates the healing response
Promotes emotional and physical well-being
Enhances the ability to focus

ESSENTIAL ELEMENTS

WHAT IS MINDFULNESS MEDITATION?

The practice of mindfulness has you simply pay attention to the present moment by placing your focus in a particular way... without judgment, with curiosity, and with a gentle awareness.

WHY IS IT IMPORTANT TO BE MINDFUL?

Most of the time, our attention is not where we want it to be. Our thoughts and emotions, hopes or worries for the future, and memories and regrets from the past can distract us. An inner voice tends to chatter away nonstop and can be likened to monkeys that jump around from tree to tree, often referred to as having a "monkey mind." Modern living only makes the "monkey mind" worse as we try to keep up with all the input that comes from social

media and try to manage all of our responsibilities. Besides having difficulty living in the present moment, we tend to live life on autopilot by doing things unconsciously. Living with a monkey mind and on autopilot hijacks our attention from the present moment here and now. Most people live this way for most of their lives, and, therefore, they don't get the chance to fully experience or appreciate their lives. However, it is in this moment that we live our lives--not in the past, which is no longer happening, and not in the future, which has yet to come. Mindfulness meditation focuses our attention by settling the monkey mind and turning off our autopilot, allowing us the opportunity to reap the benefits life offers.

HOW IS MINDFULNESS MEDITATION PRACTICED?

Although this article is not a replacement for being properly instructed in mindfulness meditation, here are the basics to help you have a better understanding:

When to meditate: When you mediate does not matter. Choose a time that works best for you and practice every day, which reinforces and deepens your commitment to meditation. However, practicing right before bed is not recommended for everyone because meditation can sometimes energize you and affect your sleep.

The place to meditate: You can meditate wherever you feel comfortable. Ideally, choose a place that is convenient to access and quiet. Avoid potential distractions---turn off your cell phone, television, and any music. Also, let others know in advance that you will be meditating and don't want to be disturbed unless there is an emergency.

What you wear: Whatever clothes you feel comfortable in work well with meditation.

Your position: Mindfulness meditation can be practiced in a variety of positions. Sitting in a supportive chair that promotes good posture, placing your hands on your legs so your arms are supported and relaxed, and having your feet uncrossed and flat on the ground is most accessible. However, you could also choose to sit on a cushion on the floor with legs crossed. Also, some mindfulness techniques are practiced standing or while moving or walking. Your intention with your posture is to promote being awake and alert. Therefore, laying down is not the ideal posture for meditating because you can be tempted to fall asleep. Ultimately, you should choose the best position to practice meditation because its most important that you are comfortable.

What to do with your eyes: Ideally, mindfulness meditation is practiced with the eyelids closed. However, if you prefer to keep your eyelids open, you can look down toward the floor a few feet in front of you while you keep your gaze soft and unfocused.

WHAT ARE THE KEY PRINCIPLES OF MINDFULNESS MEDITATION?

It's OK for you to have thoughts while meditating. It is the nature of the mind to think. That's its job! Know that all thoughts and feelings are welcome when practicing meditation.

You do not try to force your mind to be quiet and stop thinking while meditating. Instead, you give it something to focus on so it has an anchor to keep your attention in the present moment. When you do this your mind will naturally settle.

Mindfulness meditation uses different objects to focus on. Since the breath is always with us in the present moment, it is often used as the focus of your attention. Also, your body only lives in the here and now, so it can also be used as the focus for your attention. You can pay attention to internal experiences within your body, such as feeling or imagining different body parts, or you can pay attention to experiences outside of your body, such as different senses like sound, sight, smell, taste, touch, and temperature.

Attention can be directed to focus on one object, like the breath, body, or something in the environment. This form of mindfulness meditation is known as "focused attention," and is used when you are first learning. However, focused attention is also often used by many experienced meditators.



Another method of paying attention is allowing your focus to be on anything that comes into your awareness in the present moment. It provides a broad view of whatever is happening in the moment. This form of mindfulness meditation is known as open awareness or open monitoring, and although it may seem simple to do, it is considered an advanced form of practice.

It is important to know that while meditating your mind will become distracted and it will wander. You will often get lost in stories that you tell yourself. It is natural to lose your focus. It happens to everyone. When it does, simply recognize it and bring your attention back to the focus of your meditation.

Remember, you have the chance to redirect your focus again, and again and again. Paying attention is not a one-time event. When you bring your attention back to the focus of your meditation, you are doing what mindfulness is all about: being present.

The attitude to take when you lose your focus is to remain open to whatever is present in the moment. Do this by allowing yourself to not have any expectations or judge the meditation experience by saying, "this should be happening" or "this shouldn't be happening." Instead, kindly and gently, without trying too hard, redirect your attention back to the focus of your meditation.

Additionally, keep an attitude of curiosity by allowing yourself to explore and have a genuine interest in the experience. Being curious will help reduce judgement and guard against boredom or the desire to have a different experience.

Lastly, with meditation, it only works if you practice it consistently and do not give up. If you feel restless or think of something else you would rather do, you can make the choice to stay with the practice until the time that is set in the beginning is completed. This will help nurture commitment for your practice.

With mindfulness, there is the formal meditation practice and the practice of incorporating mindfulness by being present with your daily activities. Your meditation practice will help you cultivate being mindful in life.

SUGGESTIONS FOR USING MINDFULNESS WHEN DEALING WITH VESTIBULAR DYSFUNCTION

Vestibular dysfunction causes physical symptoms (i.e., vertigo, dizziness, blurred vision with head movement, and/or imbalance) that can frequently be overwhelming. Feeling anxious or overwhelmed by physical sensations can worsen emotional symptoms, like fear, depression, frustration, and anger. When treating the physical consequences of vestibular dysfunction, the emotional consequences should be addressed, too. The best advice is to seek treatment from a psychologist. Additionally, formally practicing mindfulness meditation on a daily bases helps change your relationship to emotions, which can give you better perspective about the negative impact troubling emotions have.

Beyond psychological treatment and formal mindfulness practice for vestibular rehabilitation for symptoms related to vestibular dysfunction, physical exercise and mindfulness principles significantly help heal the body and mind. Some specific ways to incorporate mindfulness when dealing with the consequences of vestibular dysfunction include:

BODY SCANS (AKA GROUNDING)

This exercise helps train the brain to use information from the body for orientation (i.e., knowing where the body is in space), instead of using vision for this information. Vision can act as the dominant sense when there is vestibular dysfunction and vision shouldn't always be relied on because it can easily be fooled. For example, when you are sitting at a traffic light and the body is still, but you see movement in the environment from the passing traffic in the intersection. The brain has to figure out what sense to pay attention to. Your body sense tells the brain that the body is still, however the visual sense tells the brain the body is moving because it sees the passing cars. This mismatch of sensory information causes a conflict that has to be resolved. Training the brain to use the body sense can help resolve this conflict.

There are many ways to perform a body scan (AKA Grounding). Here are the instructions for one way:

While sitting comfortably in a supportive chair that has a back, rest your hands comfortably in your lap, and allow your eyelids to close. However, if you prefer to keep your eyelids open, you can cap them by looking down toward the floor a few feet in front of you while you keep your gaze soft and unfocused.

GROUNDING TRAINS THE BRAIN TO USE INFORMATION FROM THE BODY FOR ORIENTATION, INSTEAD OF USING VISION FOR THIS INFORMATION.

With a gentle attention, slowly and steadily scan your body by starting at your feet.

Feel the pressure of your feet on the ground and your legs/buttocks on the seat.

Find different points on your feet that are touching the ground as well as on the back of your leg/buttocks that are touching the seat. Note and experience how the ground and seat are solid and unmoving and how stable your feet and legs are by being connected to the surfaces and how you are also solid and unmoving with this connection.

Feel how your trunk is touching the chair back and is providing support. Also, explore and experience what is happening from the pelvis, to the abdomen, up through chest, and along back from the tailbone to the base of the neck.

Move your attention from your trunk to your arms---focus your attention first with your fingers, then your hands, and move up to your forearms and then your upper arms and shoulders.

Next note how your head is connected to your trunk and explore and experience your face and head.

Finish the scan by moving your attention back from your head, through your trunk, to your legs, and returning to your feet.

While doing this, know that you are supported and stable.

Allow your breathing to remain natural and relaxed throughout the body scan.

As you scan, simply be an observer, allowing yourself to experience whatever is present. If you notice that you become uncomfortable or distracted at any time, recognize it, allow yourself to gently and kindly let it go, then continue with the body scan. And, you can do this over and over again.

Also, if you find yourself trying too hard at any time, allow yourself to ease up and gently, with as little effort as possible, simply experience what is happening.

This can be practiced throughout the day, such as before or after an activity. Also, it is recommended to be practiced before and after different vestibular exercises and between sets of each exercise.

BODY SCANS (AKA GROUNDING) THAT INTEGRATE ACTIVE RELAXATION

This exercise counteracts the "fight or flight" response (AKA stress response) that occurs from experiencing both physical and emotional stress by cultivating the relaxation response.
Perform a body scan, like the one above, with the addition of actively tightening and relaxing different muscles in the body. As you scan from the feet, legs, abdomen, back, hands, arms, shoulders, and face, tighten the muscles and hold for a couple of seconds. Then, let go of the contraction. After you let go of the contraction, allow yourself to experience the feeling of relaxation that occurs from the letting go. Slowly and steadily move up the body, tightening and letting the contraction go, while you allow your breath to remain natural and relaxed.

This can be practiced throughout the day, especially when you notice that you are experiencing stress. However, even when you don't experience stress, it can also be practiced to build resiliency against the stress response.

PRACTICE ABC'S

ABC's is an acronym that was coined by the author and that stands for Attention, Breath, Change, and either Savor or Support. This exercise has you practice paying attention to uncomfortable emotions and physical discomforts that are experienced throughout the day and then has you take action without judgement, with kindness, and curiosity. This exercise can help you

change the relationship with how you are experiencing what is happening.

LEARN MORE ABOUT MEDITATION

To overcome the misconceptions of meditation and have the best opportunity for success, proper training is essential. Meditation classes can be found online or they may be offered in local communities. Before signing up to take classes, make sure the instructor is qualified and research the meditation technique that is being taught. When anxiety, depression and/or trauma are so overwhelming that mindfulness meditation does not seem to work for you, look for a psychologist who is a qualified mindfulness meditation instructor to work with you.

MORE RESOURCES

Here are a few books to further your education about meditation:

- The Headspace Guide to Meditation and Mindfulness: How Mindfulness Can Change Your Life in Ten Minutes a Day by Andy Puddicombe
- Mindfulness: An Eight-Week Plan for Finding Peace in a Frantic World by Mark Williams and Danny Penman with Forward by Jon Kabat-Zinn
- Wherever You Go, There You Are by Jon Kabat-Zinn (Father of 'Mindfulness-Based Stress Reduction' method)
- Loving-Kindness: The Revolutionary Art of Happiness by Sharon Salzberg
- Radical Compassion: Learning to Love Yourself and Your World with the Practice of RAIN by Tara Brach

ABOUT THE AUTHOR

Dr. Farrell is a physical therapist, athletic trainer, and certified meditation and mindfulness instructor in South Florida. She has been specializing in vestibular and balance rehabilitation for adults with various neurological pathologies since 1999. For more information about her practice, visit **symmetryalliance.com**.

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Proper Footwear

By Julie Shein, PT

ARTICLE 054

THE PREVALENCE OF FALLS

- One in three people over the age of 65 sustains a fall yearly.
- Every 14 seconds an older adult is treated in the emergency room for a fall.
- Every 29 minutes an older adult dies from a fall-related injury.

THE FINANCIAL IMPACT OF FALLS:

- As the general population ages, so too will the financial impact of falls on our society.
- In 2013, fall-related medical costs totaled $23 million (CDC).

Reducing or eliminating falls is important to prevent injury, reduce medical costs, and eliminate the negative effects of falls such as depression, fear of movement, and isolation.

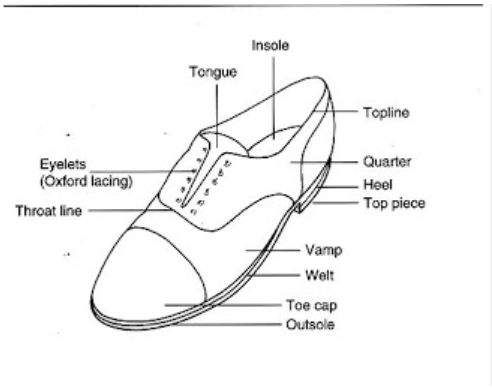
"Proper footwear can help improve balance especially in older people who may struggle with mobility and balance issues," said Dr. Matthew Garoufalis, a podiatrist and president of the American Podiatric Medical Association (APMA).

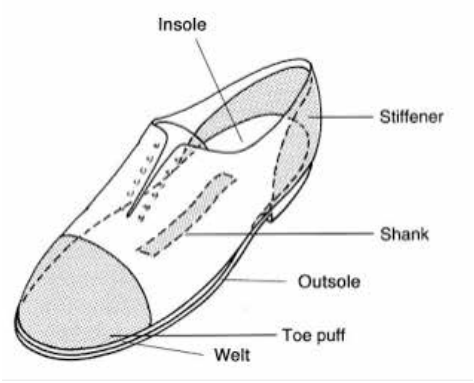
COMMON QUESTIONS ABOUT PROPER FOOTWEAR:

- Am I better off wearing shoes or not?
- Is it better for me to wear shoes with rubber soles?
- Should I wear shoes that support my ankle?

In this article, we will try to answer these questions and provide the latest research on the best footwear for people with balance issues.

WHAT IS THE STRUCTURE OF A SHOE?





A shoe is made of upper and lower components. The upper component is divided into the vamp, quarter, toe box, throat, insole board, and topline. The lower component is the outsole, shank and heel.

The upper component of the shoe is usually made of a variety of materials and is designed to allow the foot to breathe. The counter is a component of the upper that stabilizes the hind foot and retains the shape of the posterior (back) portion of the shoe. The counter can extend to support the heel and help prevent excessive pronation (rotation that is inward and downward). The toe box is the area the covers the toes and should allow room for the toes to move freely.

The lower portion of the shoe consists of the sole, shank and heel. The sole is divided into the insole and the outsole. The outsole should be waterproof, durable and possess some level of friction high enough to prevent slipping. The shank reinforces the shoe to prevent distortion of the shape of the shoe from regular wear. The heel is designed to hit the ground with each step forward.

WHICH SHOES CONTRIBUTE TO INCREASED FALL RISK?

Footwear has been identified as an environmental risk factor for both indoor and outdoor falls (Connell et al.). Somatosensory feedback to the foot and ankle are extremely important in balance and to prevent slipping or tripping.

In a study done by Munro et al it was found that older people typically wear slippers because they are comfortable and can be worn without increasing discomfort from foot deformities. However, in a sample of 312 older persons, those who wore slippers had more foot pain and significantly greater fall risks compared to those who wore fastened shoes or no shoes at all (Mickle et al). In fact, numerous studies report that walking barefoot or wearing socks or slippers increased fall risk by up to 11 percent as compared to wearing athletic or canvas shoes (Koepsell et al). Most falls occurred in peoples' homes (48%), where slippers are the most commonly worn footwear (Sherrington et al). Keegan et al found that slip on shoes, sandals, medium to high heel height and narrow shoes were also contributing factors to increased foot fracture from falls in people over 45 years of age (Keegan et al).

Since wearing slippers or socks can lead to increased fall risk, it is recommended that you wear shoes even when inside your home. You may want to keep a specific pair of comfortable shoes for indoor use only if you are concerned about bringing dirt in from the outside. For people who must or prefer to wear slippers in the home, it is best to choose slippers that are well-fitting and have a closed back and non-skid sole.

IS IT BENEFICIAL TO WALK BAREFOOT?



Many people assume that walking without shoes would decrease their fall risk because it improves their ability to feel the ground. However, studies show this may not be the case, especially for older people who have worn shoes since childhood. Robbins et al noted that joint position sense was 162% lower in older individuals as compared to their younger counterparts, possibly due to an age related decline in proprioception (i.e. the ability to sense stimuli arising within the body regarding position, motion, and equilibrium). In addition, community dwelling older individuals tasked with walking on a 7.8 cm wide beam fell more frequently when barefoot than while wearing shoes (Robbins et al). This study demonstrates that when a persons' balance is challenged they perform better wearing shoes than when they were barefoot. We can conclude from these findings that wearing shoes improves stability and reduces the risk of slipping.

WHICH SHOES ARE SAFEST FOR PEOPLE WITH INCREASED FALL RISKS?

It is important that your shoes are the appropriate fit. Due to painful feet, many people wear shoes that are too large (long or wide), which can lead to an increased risk of falls (Burns et al).

HEEL HEIGHT

Heel elevation has been associated with a greater risk of falling in older people (Gabell et al). Therefore, your shoes should have a low heel. It has been shown that shoes with a higher heel have a negative affect on posture, balance and gait, and are therefore associated with an increased fall risk. The recommendation is to wear a shoe with a heel height of 2.7 cm or less.

HARDNESS OF THE SOLE

Older people's balance and positional sense awareness is worse in shoes with a thick, soft midsole (Robbins et al). Shoes with a soft sole caused more imbalance because people require more muscle activity to maintain their

balance (Perry et al). Therefore, older people should wear a shoe with a thin, hard sole to improve foot position and optimize balance.

HIGH TOP VS. LOW TOP SHOE

The research regarding the benefit of a high top shoe vs. a low collar shoe remains inconclusive. It is thought that a high collar shoe will support the ankle joint and improve ankle stability. This has been found to be true in young adults performing multiple sports (Ottaviani et al). However, the research for high collar shoes for people with balance disorders requires further investigation.

SLIP RESISTANT PROPERTIES

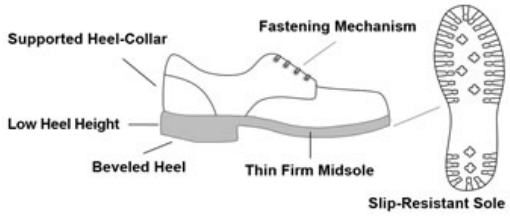
Gard and Berggard compared shoes with tread in different locations on the sole (whole foot tread, toe antiskid devices, and heel tread) and found that heel tread is best for reducing slips and trips. It was also found that a rubber heel with a bevel of 10 degrees provides greater contact with the floor and therefore improved slip resistance.

Some older individuals feel that their falls are due to their feet getting stuck to the ground, possibly because they are not picking up their feet when they walk but rather slide them along. In this scenario, if the shoe provides too much friction, and so does the surface they are walking on, a fall could be caused by a "sticking to the ground" effect. If a person with a balance issue does not lift their feet off of the ground, they would benefit more by the ability to slide their feet along the surface. In this scenario, wearing shoes with a smooth surface may be the best option.

Overall, the sole should have tread as well as a treaded beveled heel to prevent slipping on wet, slippery surfaces (Menant et al).

INSOLES

Recent studies have shown that some insoles can improve proprioception and reduce falls. One product, called BalancePro, are shoe inserts with raised edges. These raised edges provide additional feedback to your body about your balance. In one study, users of the BalancePro insoles had 40% less falls than the control group. (Source: http://balancepro.ca).



WHERE TO SHOP FOR SHOES

Our feet change over time. They may grow larger or wider, or we may develop painful bunions. If your shoes begin to feel uncomfortable it may be time to get a new pair, even if they are not worn out.

It is a good idea to have your shoes fitted by a specialist in a shoe store to ensure proper fit. Better yet, establish a relationship with particular shoe store so they can get to know you, your feet, and your footwear needs.

Shoe stores like The Walking Company, Richey Shoes and Shoes 4 Comfort stock good quality shoes that fit the recommendations for balance and stability. One way to find a good shoe store in your area is to do look for shoe stores that carry shoes such as SAS, Mephistos and Ecco's.

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Tips for Dining Out

By Brian Keith, B.S. & Habib Rizk, MD

ARTICLE 048

INTRODUCTION

This article provides tips for patients with a vestibular disorder who want to go out to eat but find it challenging because of their symptoms. When planning to dine out, it is important to consider which restaurant to eat at and where to sit at the restaurant.

CROWDED SOCIAL SETTINGS CAN BE DIFFICULT TO NAVIGATE IF YOU HAVE A CHRONIC VESTIBULAR DISORDER.

Crowded and busy social settings such as restaurants may be very difficult to navigate if you have a chronic vestibular disorder. By making some adaptations, you may still be able to meet friends and eat in relative comfort. However, even with the best planning, you may become dizzy or disoriented. It will be easier on you and your dining companions if you explain your problem and suggest ways you can be helped before you actually need assistance. Here are some tips for dining out:

SELECTING A RESTAURANT

- Pick a restaurant with small separate rooms.
- No matter where you go, avoid rush hour.
- Avoid loud background music.
- Seek carpeted floors that reduce conversational noise and vibrations caused by waiters moving nearby.
- Avoid visually distracting shiny, checkered floors and surfaces, as well as ceiling fans and busy wallpaper.

- If the restaurant has a website, download a menu in advance and plan the meal to avoid visual strain and confusion.
- If you have dietary restrictions, such as low-sodium, no MSG, etc., research restaurants that will cater to your needs. You may want to call the restaurant you are planning to go to in advance to ask these questions, and don't hesitate to ask your server, more than once, to confirm that your meal fits your dietary parameters.

SEATING CHOICES

- Seat yourself in the corner of a restaurant, avoiding the bustling middle.
- Sit away from kitchens, cash registers, and bars.
- Sit in chairs rather than benches to reduce motion caused by others seated next to you. Booths may also help block noise and activity.
- To reduce the amount of head turning required to converse, choose a round table or sit at the head.



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Travel Tips

By The Vestibular Disordes Association with Madison Oak, PT, DPT

ARTICLE 071

SUMMARY

Traveling with a vestibular illness can feel impossible and problematic. Obstacles like rapid altitude changes, visual disturbances, patterned airport carpets, and passive motion can amplify symptoms. Many people with vestibular dysfunction need accommodations or restrictions to prevent symptoms, attacks, or flare-ups. Having a vestibular disorder should not prevent someone from traveling. Here are some tips you can use to prepare for your next trip.

PLANNING FOR TRAVEL WITH A VESTIBULAR DISORDER

Planning a trip while managing a vestibular condition requires a bit of extra preparation, especially if it is your first trip post diagnosis. Here are a few questions to ask yourself while planning your trip:

- What types of travel increase my symptoms?
- What can I do to minimize discomfort while traveling?
- Is my destination friendly to my sensitivities?
- What do I need to talk to my doctor about?



Asking yourself these questions and reflecting on the answers can help you prepare for your journey. Other issues you may want to consider include:

- Weather patterns
- Planned activities at your destination
- What to bring to manage your symptoms
- Communicating with your travel companions in advance about your needs

DOES MY DIAGNOSIS PREVENT ME FROM CERTAIN TYPES OF TRAVEL?

Having a vestibular disorder does not have to prevent you from traveling. However, some types of travel may be more appropriate than others. Traveling with a vestibular disorder that is impacted by pressure in the inner ear and its fluid (Perilymph Fistula, secondary endolymphatic hydrops, and Meniere's Disease) can cause symptoms to arise when there are pressure fluctuations during travel, such as flying on an airplane.

DISORDERS AFFECTED BY TRAVEL:

- Meniere's Disease
- Perilymph Fistula
- Secondard endolymphatic hydrops
- Semicircular Canal Dehiscense

According to the Association for Research in Otolaryngology–Head and Neck Surgery, ear problems are the most common medical complaint of air travelers. This is largely because changes in altitude and fluctuating pressure impact the middle ear, which is the pressure regulation portion of the ear. The ear 'pops' when one changes elevation in order to change the pressure and volume of air in the space between your eustachian tube and ear drum. For most people, this is temporary and popping your ear allows for air to flow through the eustachian tube, equalizing the pressure in your middle ear so it matches the pressure outside of your body. This change in pressure helps to keep your eardrum intact and maintains equal pressure in your inner ear. For most, this is just a mild irritation, but for those with vestibular disorders, this change in pressure can trigger other symptoms.

Vestibular disorders with symptoms caused by pressure fluctuations may flare up during rapid ascents and descents or in other elevation changing situations. Volume and pressure are inversely proportional - both gas (air) and fluid (endolymph and perilymph fluids in your inner ear) react to changing altitudes. There is a constant change of pressure in your inner ear as you travel up and down in elevation, whether you're on land, in the ocean, or in the air. This relationship can be thrown off and cause dizziness or vertigo in those with pressure-related vestibular disorders. Take special care with or avoid unpressurized air travel, underwater diving, and fast elevators.

Here are a few tips to avoid rapid elevation and pressure changes:

- If staying in a high-rise hotel, ask for a room on the first few floors.
- Avoid 'hopper' planes (smaller planes that typically go short distances).
- Find out ahead of time if your train or car ride will have large mountain passes with major elevation changes.
- Avoid scuba diving, freediving, and swimming in deep water.
- Chew gum, yawn, sip water frequently, or use another way to pop your ears, especially during descents.
- Ask your doctor if you can take a decongestant. This can help keep your nasal passages clear, which helps with pressure equalization.

It's important to note that those who are post-operative from Semicircular Canal Dehiscence repair surgery should not fly for a specified amount of time. This decision should be made by your surgeon.

Additionally, those with a perilymph fistula should ask their healthcare team about if it is safe for them to travel, and about the precautions they should take if plane travel is necessary.

PLANNING AROUND THE WEATHER

Barometric pressure changes happen with changes in heat, humidity, storms, and other weather events. Often people with vestibular disorders report they can 'feel a storm coming,' as if it's a sixth sense. While you cannot change or control the weather, you can sometimes choose a travel destination to avoid weather patterns associated with pressure changes, such as tropical storms.

Changes in atmospheric pressure can affect those with Meniere's Disease, secondary endolymphatic hydrops, and vestibular migraine (1,2). There is not much research stating why or how this may happen. For those with Meniere's Disease (1), however, one study found that increased pressure was problematic. For those with vestibular migraine low pressure systems were more problematic (2).

For more information on weather and vestibular disorders, visit **vestibular.org/article/coping-support/living-with-a-vestibular-disorder/environmental-influences.**

Here are some tips to find places with fewer barometric pressure changes.

- Accuweather has a migraine tracking feature. To find this feature:

  1. Go to Google.com
  2. Type in "Accuweather migraine forecast (+ your desired city)"
  3. Search and then click the top Accuweather result

- Research places that have few weather and barometric pressure changes to vacation when possible.
- Pack your "rescue kit" to help you if a weather event should arise.

PACKING FOR YOUR TRIP

Besides clothes, shoes, and toiletries, pack all the items you use to manage your symptoms on a daily basis, as well as anything you might need in an emergency. Your "rescue kit" may include a water bottle, medications, light-sensitivity glasses, hat with a brim, heating pad, and more (see below).

PACKING FOR YOUR TRIP:

- Medications
- Food & water
- Light sensitivity glasses
- Anti-nausea bands
- Ginger candy
- Peppermint tea
- Lavendar oil
- Ear plugs
- Hat
- Foldable cane

MEDICATIONS

Always keep your medications and supplements with you. Whether they're for prevention or used to abort or rescue an attack, medications should be by your side at all times. Be sure that you have what you need in your carry-on baggage, not your checked luggage.

It is not recommended to change your medication routine when you travel. If time differences are a factor, ask your doctor what's best for you when changing time zones. You may need to take the medication or supplement at a new time so that your body keeps on the same schedule, or you may be able to take it at another time.

FOOD AND WATER

Always pack a water bottle! It's important to stay hydrated. Water and/or water containers are not always easily accessible. A small to medium, lightweight water bottle is best..

If your vestibular symptoms are triggered by food, bring your own snacks. Packs of safe seeds, crackers, and power bars are often great options to throw in your backpack or purse to make sure you have something on hand in case you need it. This is especially important during the days you're traveling. Airports and train stations are notoriously unpredictable, and they do not always have safe food options.

Here are some resources that may help you plan your travel diet:

- Pantry Staples (and Snacks) for those on a migraine diet: **thedizzycook.com/pantry-staples-for-the-heal-your-headache-diet**
- Check out the list of foods from the VeDA dietary considerations list! **vestibular.org/article/coping-support/living-with-a-vestibular-disorder/dietary-considerations**

ACCESSORIES

Sun/light-sensitivity glasses, anti-nausea bands, ear plugs, a hat, a foldable cane, and other useful items may be on your list. Whether you are on a plane, in a bright environment, or somewhere with an uneven surface, these tools can come in handy to keep your trigger-load low. The key is to think through all the situations you may be in to predict what you may need.

TRAVELING TO YOUR DESTINATION AND THROUGHOUT YOUR TRIP

Getting There

If you have the time it is recommended to budget a day on either end of your trip to get acclimated to your new environment. Often people with vestibular disorders are triggered by travel, so your first day should be low-key and restful. This does not mean that you have to just sit in your hotel room for a full day, but if you're planning on having one day to lay by the pool, go to the spa, or otherwise relax, making it the first day may help you acclimate before adventuring.

MOTION SENSITIVITY

Vestibular disorders cause altered processing of motion cues. When the signals aren't firing accurately, this creates motion sickness (car-sickness or sea-sickness). Here are a few tips to help you manage motion sickness and the accompanying nausea:

- If you're on a car trip, and you can safely drive, ask to be the driver rather than the passenger so your body knows when acceleration and deceleration are going to happen. This will help your body adjust to the motion more easily.
- If you are the passenger on any form of transportation, make sure you can see outside when choosing your seat. Focus on the horizon because this helps stabilize your vestibular system.
- If possible, get out and walk around frequently to help decrease the length of time you are in passive motion. Take breaks at rest stops or when the train is in the station. You could also schedule a layover when flying.
- In passenger trains with seating on two levels, sit on the lower level where there is less sway (rocking motion).
- Avoid reading, using your phone/computer, and other activities that require your head to be down throughout your journey.
- Ask your doctor about a vestibular suppressant or other medication you can use during your journey.
- Pack a rescue kit with items to help nausea if it arises (see below).

Those with Mal de Debarquement Syndrome may feel better during passive motion and worse when the motion stops. This can also occur if a person has developed movement and postural compensation strategies in

response to a chronic vestibular disorder. If passive motion helps you to feel better, you may enjoy the ride, but prepare yourself instead for when you get off the transportation.

VISUAL VERTIGO & VISUAL SENSITIVITY

Vestibular dysfunction often increases our reliance on the visual system for balance. Because your visual, vestibular, and proprioceptive systems should work together to help you balance, when one has a dysfunction the other two need to work harder to compensate. For people with a vestibular disorder, this typically results in visual dependence, which can cause visual vertigo and visual motion sensitivity.

Airports, train stations, parking lots, and traffic are incredibly visually stimulating environments. When paired with travel-fatigue, they can be even more irritating to your system. Here are a few tricks you can use to help minimize these symptoms:

- Wear sunglasses or other tinted glasses to decrease irritating lights and patterns.
- Rest your eyes when you can.
- Wear a hat to decrease the amount of light and irritants in your peripheral view.
- Talk to your physical therapist about what you can do to prepare for being in visually stimulating environments.

NAUSEA & VOMITING[3]

Motion sickness and visual vertigo can cause nausea and/or vomiting to occur during your trip.

- Ginger is your best friend! Ginger can help reduce nausea and comes in many forms, such as chews, candies, and teas.
- Practice deep breathing - inhaling and exhaling deeply and slowly will help decrease nausea, especially if you can be outside or roll down a window for fresh air.
- Peppermint or lavender oil can help reduce your nausea response - apply it on your temples or diffuse it into the air.
- Peppermint gum, tea, or candies can also reduce nausea.
- Seltzer or sparkling water can settle the stomach.



If motion or visual sickness causes vomiting, it's important to stay hydrated and try to keep something in your stomach, if possible.

- Drink fluids slowly, approximately 1-2 oz every 10-15 minutes.
- Eat only well-tolerated foods.
- Bland foods, such as crackers, potatoes, rice, and noodles, can be helpful.
- Avoid milk products for 24-48 hours.
- Avoid fried or greasy foods.
- Bring an emesis bag in case you need it.
- Talk to your provider about an antiemetic medication if this is a frequent symptom.

OTHER STRATEGIES

- If you have a balance problem and are traveling to an unfamiliar place, pack items that will help you manage uncomfortable light and sound disturbances. These might include sunglasses, a hat with a visor, a flashlight, and ear plugs.
- Standing in long lines and walking through airport terminals or train stations can be tiring for a person with a balance disorder because these large, open, echo-filled spaces are disorienting. In this circumstance, you might find it helpful to use a cane or hold onto the extended handle of a suitcase.
- Some automobiles have curved windshields that have distortion at the lower corners. This is merely annoying for most persons, but it is often disorienting for those with visual sensitivities. If your travel plans include renting a car, prior to signing the rental agreement ask to sit in the front seat of the proposed vehicle so you can test the comfort of the windshield's optics.
- Try to arrive in the evening so you can walk around to calm your system down a little bit, then head right to bed to reset for the morning.

Although traveling, and planning to travel, with a vestibular disorder may feel daunting at first, adequate preparation and planning can help ease your nerves so you feel more prepared, resulting in a more enjoyable experience.

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Event Tips

By The Vestibular Disorders Association

ARTICLE 130

SUMMARY

Attending events can be a challenge for vestibular patients because of movement, lighting, and distance from stable anchors such as walls. This can impact a person's social life and overall quality of life. This article provides tips for attending events.

TAKE BACK YOUR SOCIAL LIFE

A person with a vestibular disorder is easily fatigued when sorting out vision and balance signals in expansive areas – even those that are quiet and calm. This effort becomes daunting in noisy and busy environments such as in large "box" stores, at crowded sporting events, in theaters, or even while navigating city sidewalks with other pedestrians. Such conditions make it difficult for a person to rely on visual clues about balance and movement while attending events because everything is moving, lighting isn't ideal, and stable anchors such as walls are far away.

This affects the quality of a person's social, work, and family relationships because it forces you to make unsatisfactory choices. For example, you may need to choose between attending your child's soccer game and fixing dinner for the family after the game, because standing on the sidelines watching the team run back and forth is so overwhelming that you "rise to the occasion" during the



game, but collapse as soon as it is over. You don't want to disappoint your child by not appearing at his game, and at the same time, you need to reserve enough energy to feed him at the end of the day and catch up with the rest of the family.

Here are a few tips to help you attend events in challenging environments.

HAVING A BAD VESTIBULAR DAY? IT'S OK TO SAY "NO."

TIPS FOR ATTENDING EVENTS:

- Use a cane to provide you with additional proprioceptive (touch) information about where you exist in space. Urban walking poles are another alternative, especially if you don't want to draw attention to yourself.
- Pack a fold-up stool or canvas chair in the trunk of your car to use when needed at outdoor events. Make sure it is sturdy enough to sit on without falling over, but light enough to carry if you have to walk a distance. Some folding chairs come with carrying cases and/or have backpack straps built in.
- If you are at a sporting event, sit at one end of the field/coliseum rather than on the sidelines. This will help you avoid turning your head back and forth as the team travels up and down the field. Instead, you'll be keeping your head steady while watching the team run to or away from you.
- Wear sunglasses and a hat with a brim to calm light and movement.

Managing Nausea

By Danielle Beatty, DPT with Theresa Galvin, MS, RDN, CD-N

ARTICLE 025

INTRODUCTION

Nausea, vomiting and poor appetite are common complaints among individuals with vestibular disorders. These symptoms can significantly affect one's ability to work, participate in social activities, drive, and perform household tasks. Often, they can become interrelated, creating a vicious cycle. There are many strategies that have been shown to help reduce or alleviate nausea, vomiting and anorexia.

DIETARY RECOMMENDATIONS FOR NAUSEA AND VOMITING

It is important to rest the stomach and yet still avoid dehydration during acute periods of nausea and vomiting. Initially steer clear of any foods and beverages and try ice chips only. As you gain confidence progress to clear fluids, advancing to solid food.

Clear fluids are easy for the stomach to absorb, and include:

- Water
- Sports Drinks
- Clear Broths
- Popsicles
- Jell-O
- Flat ginger ale
- Coconut water
- Non-caffeinated peppermint tea



Don't take too much fluid at once. One to two ounces at a time, taken every 10-15 minutes, may be all the stomach can handle at first.

Avoid milk products for the first 24-48 hours during nausea and/or vomiting episodes.

When you reintroduce solid foods:

- Eat small, frequent meals
- Eat bland foods, like crackers/soup and broth
- Eat and drink slowly
- Drink clear fluids
- Try well tolerated foods such as toast, crackers, yogurt, cream of wheat, oatmeal, boiled potatoes, rice, noodles, and carbonated drinks
- Avoid fried/greasy foods and sweets
- Avoid physical activity soon after eating
- Do not lie flat for at least 2 hours after eating
- Eat foods cold or at room temperature
- Avoid eating in a warm or stuffy room
- Avoid liquids with your meals, drink 1/2 hour before or after eating
- Rinse your mouth before and after eating to eliminate any bad tastes that may make you nauseated

GINGER

Ginger can help control nausea. Studies show that ginger is effective in relieving nausea/vomiting in patients undergoing chemotherapy and with pregnant women. [1] Ginger can be found in supplements, gummies, hard candy, juice, tea, and gum. There is no clear consensus on the recommended amount of ginger to be used, but most studies use 0.5-1.5 grams of dried ginger root per day. If you are on a blood thinner or prone to low blood pressure/blood sugar, be sure to talk to your doctor, as ginger can affect these.

POOR APPETITE

Poor appetite makes it hard to eat enough, resulting in weight and nutrient loss. Here are some ideas to consider:

- Eat small amounts of food at least 6 times a day. Try to eat every 2-3 hours
- When you go out, carry snacks that won't spoil, such as crackers, bananas and nuts
- Light exercise may make you want to eat more
- Ask your doctor about medicine that can make your appetite stronger
- Nutritional supplements (powders, liquids, puddings and bars) help meet caloric needs, but should not be used to replace meals

RUBBING ALCOHOL

Another method to reduce nausea involves inhalation of isopropyl alcohol. One study on patients in the emergency department showed that those who inhaled the scent had a significant reduction in nausea compared to those who did not. [2] Rubbing alcohol is a common staple in many households, which makes this technique convenient and easy. It can also be used on the go by carrying alcohol wipes in your purse or wallet.

ESSENTIAL OILS

Essential oils have gained much popularity over the years. Scents such as peppermint and spearmint have been shown to reduce nausea and vomiting in people undergoing chemotherapy. [3] Additionally, putting a few drops of peppermint or lavender on a tissue or on the hand, can be inhaled to provide relief. Lemon scent can help reduce nausea and vomiting in pregnant women. [4]

PRO TIP:

Put a few drops of peppermint or lavendar essential oil on a tissue or your hand and inhale it to reduce nausea.

OTC BANDS

Motion sickness bands work based on the premise of acupressure. Acupressure is "an alternative medicine technique similar in principle to acupuncture. It is based on the concept of life energy which flows through 'meridians' in the body. In treatment, physical pressure is applied to acupuncture points with the aim of clearing blockages in these meridians. Pressure may be applied by hand, by elbow, or with various devices."[5]

Some medical studies have suggested that acupressure may be effective at managing nausea and vomiting. However, these studies may have bias and a placebo effect. Motion sickness bands use pressure applied at P6, which is the 6th point on the Pericardium pathway in Chinese medicine. This point is found about 2 inches above your wrist crease on the palm side, right in the middle between the tendons. The Pericardium pathway passes through your chest, down through your diaphragm and into your mid and lower abdomen. The motion sickness bands are elastic and typically have a plastic stud placed at the P6, where manual pressure can be applied. Pressure can also be applied by your thumb or elbow without the use of the band or with the use of acupressure balls or other instruments. Compared to applying pressure at a placebo point or no pressure at all, applying pressure at P6 has been shown to significantly reduce nausea, vomiting, and the need for nausea medication in pregnant women. [6]

BREATHING

Diaphragmatic breathing is a technique commonly used for people with breathing disorders such as COPD (chronic obstructive pulmonary disease),

but it can also be used for relaxation and to decrease nausea. This involves breathing in through your nose while trying to expand your abdomen (as opposed to letting your chest rise), and breathing out through pursed lips. Diaphragmatic breathing has been shown beneficial to reduce motion sickness symptoms on healthy subjects while putting them through a virtual reality experience.[7]

DRUGS

Over the counter medications include Bonine (Meclizine) and Dramamine. Physicians usually recommend taking these medications sparingly and only when nausea and dizziness is quite elevated. Side effects can include drowsiness. A physician can also prescribe medications, such as Phernergan, Antivert (Meclizine), and Valium. Talk to your doctor to get more information.

CBD OIL

CBD oil is gaining popularity as a potential treatment for various ailments. Cannabidiol is extracted from the flowers and buds of marijuana or hemp plants. It does not produce a "high" as with marijuana, as it has little to no THC (tetrahydrocannabinol). Studies have shown effectiveness in treatment for epilepsy. However, all other proposed uses show limited effectiveness as of yet, according to the Food & Drug Administration (FDA). One study did show that combined with antiemetic (anti-vomiting) therapy, CBD oil is beneficial in reducing nausea/vomiting in patients undergoing chemotherapy.[8] CBD oil is not regulated by the FDA, so this poses some concern over the quality and quantity of its ingredients. It is important to discuss benefits, concerns, and potential adverse effects with your physician before attempting this regimen.

OTHER

- Apply a cold compress to the back of your neck
- Get fresh air or use a fan
- Find a focal point in front of you and maintaining focus on that point
- Use distraction (read a book, watch television, listen to music)
- Altoids Extra Strong Mints can be carried around in your pocket and can offer relief

What works for one person may not work the same for another, so be open to trying various techniques to find which options work best for you.

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Healthy Sleep Habits

By the Vestibular Disorders Association

Getting high-quality sleep, and enough of it, is a useful tool in your vestibular recovery toolbox. When you are well-rested, your body is better prepared to respond to conventional treatment efforts. Sleep deprivation can cause or exacerbate vestibular symptoms. This article gives you tips to help you establish healthy sleep habits.

TAKE SLEEP SERIOUSLY

Developing healthy sleep habits is an important part of overall health. The following tips can help you establish habits for better and more consistent sleep.

STANDARD SLEEP TIME

- Establish a regular bed and rise time every day, even on weekends.
- Allow enough time for sleep so that you wake up refreshed (For adults, 7 – 9 hours is recommended).
- Consider using a smart watch/app that helps to track your sleep, or a diary of your sleep habits.

AVOID

- Caffeinated substances after 2 pm (coffee, tea, soft drinks, chocolate, etc.).
- Alcohol within 3 hours of bedtime.
- Nicotine within a few hours of bedtime.
- A large meal close to bedtime.
- Exercise within a few hours of bedtime.
- Digital devices – Use blue light blockers/glasses for TV, smartphone, computers, or other light producing equipment and do not use electronic devices within one hour of bedtime because it will signal the brain's pineal gland to stop secreting melatonin, a hormone that induces sleep in response to darkness.

- Bed is for Sleeping or Intimate Activities Only
  - Do NOT read, watch TV, use the phone, etc. while in bed.

PREPARE FOR SLEEP ONE HOUR BEFORE BED

- Lower the amount of light around you
- Establish a regular routine. Do quiet activities like listening to music, reading with a yellow light, taking a warm shower/bath, etc. Also consider a cup of chamomile or kava tea, which can provide sedative or relaxation effects.
- Write down a list of your next day activities and leave the paper and your thoughts, planning, worries, etc. in a room outside of your bedroom.

TROUBLE GOING TO SLEEP OR STAYING ASLEEP?

- Consider trying controlled breathing, mindfulness meditation, progressive muscle relaxation, relaxing music, and guided imagery. An app such as Calm or Headspace can help.
- If you awake in the night and cannot go back to sleep within 20 minutes, get up and do a quiet activity (read or listen to something soothing, warm bath), using a softer light, then go back to bed when you get sleepy.
- If you have a problem sleeping through the night, stick to waking up at your usual time regardless of the amount of sleep you had the night before. Then, go to bed at your regular time.
- Consider over-the-counter sleep aids, supplements, or Melatonin. Consult your physician for suggestions.
- Need a new mattress? Determine how old your mattress is and whether a new mattress may be warranted. Also consider replacing your pillow.
- Use ear plugs, dark window shades, or eye covers as needed.
- With chronic insomnia, consider seeking counseling which includes cognitive behavioral therapy.
- Discuss with your physician if any of your current medications may be disrupting your sleep. Ensure that no other medical conditions are affecting your sleep, such as thyroid disorders, mood disorders, hormone imbalances, etc.

PREPARE THE ROOM

- Cooler (66-68 degrees Fahrenheit) is recommended.
- Dark (or, use mask) with no night lights (have a flashlight within reach to use if you get out of bed and to use if the power goes out). However,

some individuals who experience dizziness may consider the use of a night light to help with using vision to orient themselves if they are unsteady.
- Control noises that bother you with earplugs or sound screening device (fan, air conditioner, soft sounds like rain, etc.).
- If you get dizzy when lying flat on your back or with rolling, consider using pillows or a wedge to elevate your head or a large pillow against your side to avoid rolling to the symptomatic side.

HABITS TO HELP DURING THE DAY

- Try to avoid taking a nap. However, if you need to nap, limit it to no more than 20 minutes.
- Get regular physical activity. Yoga is a routine that can also help to reduce stress and anxiety. For more information on recommended exercise, see the physical activity guidelines for Americans on www.health.gov.
- Strive to get 30 minutes of natural light exposure each day (go outside or open windows/blinds in your home).

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Dentist's Guide

By Teresa Hughes, DDS

ARTICLE 103

INTRODUCTION

Dizziness, vertigo, and disequilibrium are symptoms frequently reported to physicians. Common causes include benign paroxysmal positional vertigo (BPPV), labyrinthitis and vestibular neuritis, Meniere's disease, vestibular migraine, medications, head and neck trauma, blood-flow irregularities, autoimmune conditions, stress, and allergies.[41]

Various types of trauma have been associated with traumatic BPPV, including head trauma, whiplash injury, ear surgery, or dental surgery.[42] BPPV symptoms may include a sense of spinning or moving typically brought on by head movement, dizziness, lightheadedness, unsteadiness, nausea, and vomiting.[43]

Tinnitus is also affiliated with vestibular disorders. Tinnitus can be caused by temporomandibular disorders.[44]

Dental visits are especially challenging for patients with dizziness and vertigo because dental chair positioning, equipment, and instruments can worsen their condition. Fortunately, dental office personnel can minimize patient symptoms and agitation by implementing the following protocols.



DIZZINESS PROTOCOL

COMMON TRIGGERS:

- Bright lights
- Reclining chair
- Loud sounds
- Vibration of dental tools

- Schedule dizziness patients at their best time of day.
- Symptoms can come on suddenly, resulting in possible last minute scheduling changes.
- Offer an arm for the patient to hold while walking, as hallways and busy pattern flooring exacerbate disequilibrium.
- Accommodate a friend or family member who may accompany the patient.
- Communicate while sitting knee-to-knee and in front of the patient as much as possible. Politeness eases tension and the closeness will aid those with hearing loss and/or tinnitus.
- Speak slowly while keeping your head and arms still. Be patient as these patients tend to behave anxiously due to their physical symptoms.
- Do not move the dental chair without discussing it with the patient first. Some patients will want to sit forward while the chair reclines.
- Ask the patient for positioning feedback and always keep their head above their feet.
- Reduce light as much as possible and offer dark safety glasses.
- Empower the patient by allowing them to take breaks, if needed, by raising their hand.
- During the procedure, inform the patient when to anticipate vibration and check on their wellbeing.
- Conversation should pertain to the patient. Do not engage in side-talk, which can be distracting and cause anxiety, unless the patient initiates it to relieve tension.
- Move your operator chair and change your position to accommodate patients who cannot lie supine and/or turn their head.

THE FOLLOWING WILL ALSO INCREASE COMFORT:

- Offer a neck pillow and blanket.
- Avoid scents such candles, perfume, cologne, and air fresheners.
- Check with the patient about the noise level. Some patients with dizziness find background music disorienting.
- Do not wear print scrubs or patterned clothing, as busy visual environments cause discomfort for people with vestibular disorders.[45]
- If BPPV is suspected to be a complication of dental treatment, refer the patient to an otolaryngologist or physical threapist for evaluation.

ADVOCATE FOR YOURSELF

- Let the dentist know what your limitations are
- Bring a companion to speak for you
- Schedule your appointment at the beginning of the day when it's not busy
- Bring a hat and your own sunglasses
- Ask for a break when you need it
- Request silence, not chit chat.
- If needed, let them know if you have sensitivity to scents in advance

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