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# Vestibular Problems & Vision Dysfunction

## What are vestibular problems?

Vestibular problems, or balance/dizziness problems, are very common after a concussion/mTBI. The vestibular system is responsible for your balance, maintenance of posture, and spatial orientation. Vestibular problems can include loss of balance, vertigo, and nausea.

Episodes of loss of balance or dizziness usually last less than a minute, but they can happen several times a day and can be quite disabling. Dizziness may also be caused from post-concussion migraines and certain medications.

If you are having loss of balance, nausea, or dizziness, you should have some testing done. Tests will look at your sense of balance, coordination, vision, and hearing.

Vestibular symptoms can also come from post-concussion migraines, autonomic dysregulation (sudden high blood pressure), medications, and other peripheral vestibular (inner ear) disorders.

## What are some treatments for balance and dizziness problems?

There are different types of treatments depending on the symptoms you are having. Treatments can include:

- Vestibular rehabilitation (also called VR)
- Epley maneuver
- Canalith or particle repositioning within the ear
- Balance exercises targeted at your specific symptoms

Vestibular rehabilitation is effective for unilateral peripheral vestibular dysfunction (inner ear problems occurring on one side). Medications can be used to control vestibular symptoms, however evidence does not fully support the use of medication for treatment of balance and dizziness problems.

If your balance or dizziness symptoms are causing you to feel anxious or depressed, your primary care provider may also prescribe treatment from a therapist or mental health specialist, such as Cognitive Behavior Therapy. Medication may also be prescribed for management and/or treatment.



## What vision problems might I experience?

Vision problems after a concussion/mTBI can include:

- Blurred or double vision
- Abnormal eye movements
- Partial loss of vision
- Sensitivity to light, computer, or TV screens

If you have vision problems, your primary healthcare provider will do a series of tests to identify the problem. Depending on the results of your test, you may need to see a vision specialist, such as an ophthalmologist or an optometrist with specialized rehabilitation training.

## What are treatment options for vision problems?

It is common for vision problems to heal naturally after a period of weeks. If you are still experiencing prolonged vision disturbances or symptoms, you may need vision-specific treatment depending on your problem. You may undergo vision rehabilitation or be prescribed special glasses, such as reading glasses, prism glasses, or tinted glasses.

Healthcare providers should take a detailed history of vision symptoms and screen for potentially unrecognized visual deficits. Patients who experience complex visual symptoms should be referred to a neuro-ophthalmologist.

## Key Guideline Recommendations for Healthcare Providers

The following key guideline recommendations for healthcare providers have been included here so you can see what the guideline recommends healthcare providers do in assessing and treating patients after concussion/mTBI.

10.1	Evaluation by an experienced healthcare professional(s) with specialized training in the vestibular system, should include a thorough neurological examination that emphasizes vision, vestibular, balance and coordination, and hearing. The evaluation should be conducted prior to 3 months post-injury.
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## Cautionary Note to Users

The content of the *Guideline for Concussion/mTBI & Prolonged Symptoms, 3rd Edition: for Adults over 18 years*, is based on the status of scientific knowledge available at the time of their finalization (2017) as well as on the consensus of the experts who participated in the guideline development.

This guideline has been created to provide recommendations and help with management of concussion/mild traumatic brain injury (mTBI). It is only for management for adults over 18 years of age. This guideline is not intended for use by people who have sustained or are suspected of having sustained a concussion/mTBI for any self-diagnosis or treatment.

The guideline can be used by patients when speaking with healthcare providers about their care. It covers getting a diagnosis, managing symptoms in the early phase (acute) and management in the longer recovery phase (prolonged symptoms). Patients may wish to bring their healthcare and other providers' attention to this guideline. It is based on up-to-date, quality research evidence, the expertise of providers and the input of patients.

