

Trauma and Inner Ear Problems

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Patient Fact Sheet

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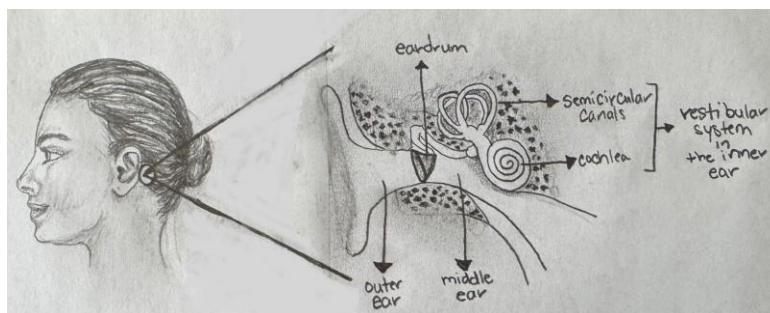
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How trauma can affect the inner ear:

Trauma can happen from incidents that might seem minor. Physical traumas, like hitting your head in a fall or car accident, straining your neck during a sudden movement, being on bedrest for a long time, or having surgery, can cause injury to the balance structures in your inner ear. This injury can cause symptoms of dizziness with movements, such as moving your head, rolling in bed, standing up from a seated position, and walking.

Our vestibular system, which is our body's balance system, is about the size of a dime and sits in the temporal bone behind our ear. This balance system is responsible for coordinating head and eye movements to keep our eyes steady. When working properly, our balance system automatically moves our eyes in the correct direction and at the right time to keep our eyes focused and let us feel where our body is in relation to the ground. When this system isn't working properly, it can cause us to feel unsteady, have blurry vision, or feel like the room is spinning. Other common symptoms are feeling lightheaded or woozy, experiencing ringing in the ears or hearing loss, or feeling the sensation of rocking on a boat.



Head trauma can also cause BPPV (Benign Paroxysmal Positional Vertigo), also referred to as “positional vertigo.” This occurs when the otoconia, or “crystals,” in our inner ear get knocked into the wrong canal. This can cause brief spinning episodes with movements such as getting out of bed, washing your hair, or bending over to tie your shoes.

Symptoms of dizziness will vary depending on the severity of the trauma. People often try to avoid movements that make them dizzy, but this can actually make balance problems worse and slow down recovery.

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How physical therapy can help:

When you injure a muscle, you can strengthen that muscle with specific exercises to get it back in shape. Your balance system is similar. You need to perform specialized exercises to strengthen your balance system and decrease symptoms of dizziness. Physical therapists who are trained in vestibular rehabilitation (inner ear therapy) can assess your symptoms and provide specialized treatment. This treatment can include balance exercises, manual therapy for neck pain, exercises for head and eye movement, and specialized repositioning maneuvers to put crystals back into place (for positional vertigo). Dizziness can be extremely debilitating and lead to an increase in the risk of falling in the future. Be your own advocate and request physical therapy for vestibular rehabilitation for treatment.

Contributing factors to keep in mind:

Dizziness can have several components that need different specialties to address. A neuro optometrist can assess for visual changes, such as blurry or double vision. An ENT (Ear/Nose/Throat) doctor or audiologist can evaluate ringing in your ears or hearing changes. Occupational therapists and speech therapists can evaluate and provide treatment for any complications with performing activities of daily living or difficulty with concentration or thinking. Please address any of these concerns with your vestibular physical therapist or primary care physician in order to ensure you receive the best possible medical care.

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