

# Centre for Neuro Skills Presents A Case Study:

## Vertigo and Head Pain Revealed as a Brain Injury

The last thing that L.C. remembered was sitting at her desk at work while extreme pain throbbed in her head. She cried out in distress and co-workers rushed to her side, where they found her lying on the floor. A CT scan revealed a subarchnoid bleed. Making matters worse, L.C. fell while in the hospital. She couldn't walk or stand and reported an increase in pain and dizziness. A few weeks later she was transferred to the acute rehabilitation unit of the hospital, where her symptoms worsened. A ventriculoperitoneal shunt was used to drain excess fluid from the brain.

### Patient Profile

#### Injury/Diagnosis:

Subarchnoid bleed/  
Benign Paroxysmal  
Positional Vertigo

**Deficits:** Irritability,  
depression, poor  
processing speed,  
cognitive challenges,  
impaired memory

**Employment:** Works in a  
professional office setting

**Discharge Status:**  
Learning to drive again

## Tests Reveal Benign Paroxysmal Positional Vertigo

A host of other symptoms developed: attention deficits, impaired short-term memory, and decreased verbal fluency. She also had balance and vision problems, difficulty walking, decreased endurance, headaches, and nausea. Emotionally, she was depressed and irritable.

Two months after the fall and subarchnoid hemorrhage, L.C. was admitted to Centre for Neuro Skills (CNS). She required 24-hour supervision secondary to mobility issues, balance and visual deficits, decreased memory and processing speed, all of which compromised her safety. L.C. participated in occupational and physical therapies, as well as counseling and cognitive rehabilitation.

One month after being admitted, L.C. no longer needed 24-hour supervision and was able to walk with a cane. After a series of tests, she was diagnosed with probable Benign Paroxysmal Positional Vertigo (BPPV).

Many of her symptoms, including involuntary eye movements, are commonly seen in BPPV, which is caused when particles of calcium carbonate migrate into the inner ear. These particles can become displaced after head trauma, thus BPPV is commonly seen after brain injury. The vestibular system, which is involved in the maintenance of equilibrium, is affected by this condition

## Substantial Gains in Function, Vision, Walking

L.C. received the Epley maneuver as treatment for BPPV. This procedure involves sequential positioning and movement of the head. Once L.C. completed this maneuver, her dizziness, involuntary eye movements, nausea and headaches were significantly reduced. After 60 days of rehabilitation at CNS, L.C. was discharged. She made substantial gains in all areas of functioning. Memory and organizational skills improved, verbal fluency increased, irritability and depression subsided, headaches and dizziness decreased, nausea was resolved, visual processing skills increased, and she was able to walk independently. At the time of discharge, L.C. was embarking on a milestone in her rehabilitation journey. She was preparing for an evaluation to determine if she could drive again.

**To tour a CNS facility in Bakersfield, Los Angeles, Dallas or  
San Francisco, call 800.922.4994 or visit [neuroskills.com](http://neuroskills.com)**