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CANALITH REPOSITIONING PROCEDURE
TREATMENT FOR BENIGN PAROXYSMAL POSITIONAL VERTIGO

What is benign paroxysmal positional vertigo (BPPV)?

This is a type of dizziness caused by abnormal sensitivity of the labyrinth to certain head movements. Placing a particular ear downward typically brings it on, but in sever cases any heard movement will aggravate the symptoms.

What causes BPPV?

It is caused by “canalithiasis”, which is accumulation of heavy debris in a semicircular canal of the balance system. There are several theories regarding the source of this material, but it is probably either displaced statoconia or precipitated matter. Statoconia are microscopic crystals which normally are attached to gravity-sensing nerve endings in the utricle. But trauma and degeneration can cause some to break loose and migrate to a semicircular canal.

Although the semicircular canal is normally a sensor of head rotation, the Canalith makes it respond instead to gravity change, so that when the head is placed in certain positions, a severe spinning sensation is produced. Although the spinning sensation seldom lasts more that 15-20 seconds, it is often violent and can produce after-effect of imbalance and nausea that can last for days.

How is BPPV diagnosed?

When the spinning sensation of BPPV occurs, there is also a characteristic nystagmus (involuntary movement of the eyes), which is diagnostic. To detect this, the patient’s head is placed into certain positions and the eye movements are observed either directly or electronically. Other tests may also be done to rule out other causes of the dizziness.

How is BPPV treated?

There are four methods in general use:

1. **Do nothing and wait.** (The condition may clear up spontaneously after weeks, months, or years). This is not our recommended form of management.

2. **Physical therapy.** Certain exercises may be helpful in some cases. Any improvement accomplished is usually slow to occur, often requiring weeks or months. The exercises themselves may create much dizziness and nausea.
3. **Surgery.** The balance nerve in the involved ear can be cut. This is considered a last resort and is recommended only if the person is severely incapacitated and all other methods have failed.
4. **‘Canalith Repositioning Procedure’ (Epley Maneuver).** This is a non-surgical procedure, in which the canaliths are redistributed to an area of the inner ear where they won’t affect the balance sensors. This procedure has the advantage of being immediately effective and low risk.

Is CRP used elsewhere?

Yes, but only a limited number of physicians have been trained in its use.

How effective is CRP?

It has been better than 90% effective. In some cases, the BPPV has recurred after months or years, and the procedure has had to be repeated.

How is Canalith Repositioning accomplished?

Three things are done simultaneously.

- 1.) The canalith material is mobilized with a small vibrator placed on top of the head.
- 2.) Appropriate head maneuvers are applied to cause the canaliths to gravitate out of the semicircular canal.
- 3.) The induced eye movements, which reflect the position of the canaliths in the labyrinthine channels and their direction of movement, are observed so that the maneuvers can be adjusted accordingly. The procedure takes about 20-30 minutes, and may need to be repeated to be effective.

Are there any risks or side effects?

CRP involves no pain or injections. A few patients have experienced nausea, and for this reason anti-nausea pre-medication is given. Immediately after the procedure, the symptoms may be temporarily worse before they get better, but usually there is immediate improvement.

What will I need to do during the procedure?

Sit, lie, and rollover on the examining table and turn your head as directed by the Audiologist.