

Ms Ottie Stone, 35

1. Ottie Stone

1.1 Ms Ottie Stone, 35

CFPCLearn

Ms Ottie Stone, 35

You haven't seen Ms Stone for a few years.

I was helping my daughter move into her new place. I reached under the bed and felt super dizzy. It went away after a minute.

Since then, I can't move my head, the whole room spins.


Moving Forward



1.2 Multiple choice question

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Multiple choice question



Which three questions would help diagnose benign paroxysmal positional vertigo (BPPV)?



- A. Do you have a spinning or a whirling sensation of the surroundings or yourself?
- B. Do you feel dizzy mostly when your head moves?
- C. Do you feel nauseated when your head moves?
- D. Does the dizziness last less than 3 minutes?

Submit

1.3 Review

CFPCLearn

Review



Answer: The correct answers are A, B and D.

BPPV – Diagnosis I

BPPV – Diagnosis II

Posterior Canal BPPV



Click on the buttons to view additional information

Moving Forward

BPPV (Slide Layer)

CFPCLearn

Review



Answer: The correct answers are A, B and D.

BPPV – Diagnosis I

BPPV – Diagnosis II

Posterior Canal BPPV



- BPPV is a common cause of episodic vertigo. It is idiopathic 50-70% of the time. The most common secondary cause is trauma.
- Three questions are helpful to make the diagnosis:
 - Do you have a spinning or a whirling sensation of the surrounding or yourself?
 - Do you feel dizzy mostly when your head moves?
 - Does the dizziness last < 3 minutes?

Moving Forward

BPPV - 2 (Slide Layer)

SCFPCLearn

Review



Answer: The correct answers are A, B and D.

- BPPV – Diagnosis I**
- BPPV – Diagnosis II**
- Posterior Canal BBPV**

In a cohort of 582 patients referred to a dizziness clinic, when all three questions are positive, the positive likelihood ratio is ~9 (>5 is considered helpful to make a diagnosis).



When all three questions are negative, the negative likelihood ratio is ~0.15 (<0.2 is considered helpful in ruling-out a diagnosis).

Moving Forward

Posterior Canal BBPV (Slide Layer)

SCFPCLearn

Review



Answer: The correct answers are A, B and D.

- BPPV – Diagnosis I**
- BPPV – Diagnosis II**
- Posterior Canal BBPV**

- Posterior canal BBPV (~90% of cases) is usually provoked by lying down, getting out of bed, tilting the head up (example: to place an object on a shelf) or bending forward (example: to tie shoes).
- 50% of patients will report “imbalance” between episodes.

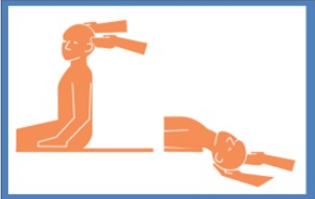
Moving Forward

1.4 Ms Ottie Stone, 35

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Ms Ottie Stone, 35

It sounds like you may have an issue with your inner ear. Let's examine you.



Moving Forward




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1.5 Multiple choice question

(Multiple Response, 10 points, 1 attempt permitted)

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Multiple choice question



You perform a Dix-Hallpike maneuver as depicted. Which of the following is consistent with BPPV? Select two options.



- A. There is brief (<60s) nystagmus after a latency period.
- B. Ms Stones feels dizzy right away, before the start of the nystagmus.
- C. She vomits during the procedure when she feels the vertigo.
- D. The nystagmus worsens during the Dix-Hallpike maneuver and never fully goes away.

Submit

1.6 Review

CFPCLearn

Review



Answer: The correct answers are A and C.

Dix-Hallpike I

Dix-Hallpike II

Dix-Hallpike III



Click on the buttons to view additional information

Moving Forward

DH 1 (Slide Layer)

CFPCLearn

Review



Answer: The correct answers are A and C.

Dix-Hallpike I

Dix-Hallpike II

Dix-Hallpike III

Dix-Hallpike Maneuver



- Before starting the procedure, it is important to counsel the patient that it will trigger their symptoms.
- The typical nystagmus of BPPV starts after 5-20 seconds latency and lasts <60 seconds.
- The affected ear is the ear towards which the 'head turn' creates the most symptoms.

Moving Forward

DH 2 (Slide Layer)

SCFPCLearn

Review



Answer: The correct answers are A and C.

- Dix-Hallpike I**
- Dix-Hallpike II**
- Dix-Hallpike III**

The nystagmus of BPPV can be tricky to memorize (upbeat torsional for the posterior canal!) and it will vary depending on which canal has been affected.



The diagnosis of BPPV is highly likely with a history consistent with BPPV and vertigo reproducible with a Dix-Hallpike maneuver that coincides with nystagmus.

Moving Forward

Vertigo (Slide Layer)

SCFPCLearn

Review



Answer: The correct answers are A and C.

- Dix-Hallpike I**
- Dix-Hallpike II**
- Dix-Hallpike III**

The subjective vertigo and nystagmus should coincide. Some patients may report vertigo without nystagmus during the Dix-Hallpike. They seem to respond similarly to those with classic BPPV.

There should be no other otologic or CNS signs and symptoms, e.g., hearing loss, fullness, headache, abnormal neurological examination.

1.7 Ms Ottie Stone, 35

SCFPC Learn

Ms Ottie Stone, 35

You have a stone misplaced in your right inner ear. The inner ear monitors the position of your head in space. When it's not working, you feel dizzy. Let's see if we can put the stone back in the right place.


Moving Forward



1.8 The steps to perform the Epley maneuver are listed below. Put them in the correct order. (Ottie's right ear is affected)

(Sequence Drop-down, 10 points, 1 attempt permitted)

The steps to perform the Epley maneuver are listed below. Put them in the correct order. (Ottie's right ear is affected)



Consider anti-emetic prophylaxis.

Ottie sits with her head turned to the right.

Ottie lays back with head hanging for ~30 seconds to the right.

Ottie goes back to sitting position.


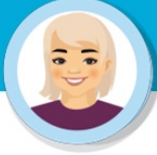
Ottie turns her head 90 degrees towards the left side for ~30 seconds.

Ottie turns to her left side so that she is nearly face down.

1.9 Review

CFPC Learn

Review



Answer: Click on the button "Epley - Image" to see the correct sequence.

Epley - Effectiveness

Epley - Image

Ottie


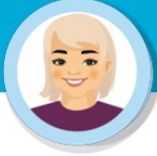
Click on the buttons to view additional information

Moving Forward

Epley (Slide Layer)

CFPC Learn

Review



Answer: Click on the button "Epley - Image" to see the correct sequence.

Epley - Effectiveness

Epley - Image

Ottie

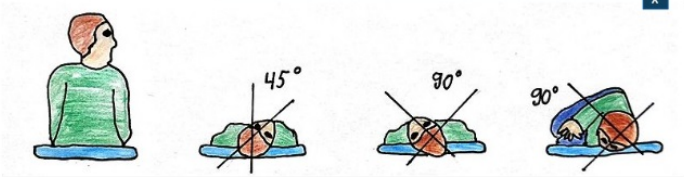
- The Epley maneuvers work. Resolution of symptoms occurs at 24 hours to 4 weeks: 56% resolution (versus 20% in control arm).
- There is no need to restrict movements after the Epley maneuver.
- A quick Google search will show many examples and videos.

Moving Forward

Image (Slide Layer)

Review

Answer: Click on the button "Epley - Image" to see the correct sequence.



The illustration shows a sequence of four diagrams for the Epley maneuver. The first diagram shows a person sitting upright. The second diagram shows the person leaning back at a 45-degree angle. The third diagram shows the person leaning back at a 90-degree angle. The fourth diagram shows the person leaning back at a 30-degree angle.

Illustration, Epley maneuver, from https://en.wikipedia.org/wiki/Epley_maneuver#/media/File:Epley_maneuver.jpg
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Moving Forward

Vertigo (Slide Layer)

Review

Answer: Click on the button "Epley - Image" to see the correct sequence.

Epley - Effectiveness

Epley - Image

Ottie

Ok, that wasn't very pleasant. I hope it works. What should I do if it happens again at home? Any medication you could give me?


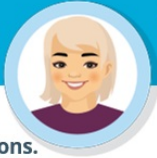
Moving Forward

1.10 Multiple choice question

(Multiple Response, 10 points, 1 attempt permitted)

SCFPCLearn

Which of the following two statements are true?



Which of the following is true? Select two options.



- A. Once "cured", ~35% of patients will have a recurrence at 4 years.
- B. Self-treatment with Epley maneuvers can improve symptoms.
- C. Guidelines recommend using benzodiazepines and anti-histamines.
- D. Betahistine is as useful as Epley maneuvers.

Submit

1.11 Review

SCFPCLearn

Review



Answer: Answers A and B are correct.

- A. Once "cured", ~35% of patients will have a recurrence at 4 years.
- B. Self-treatment with Epley maneuvers can improve symptoms.
- C. Guidelines recommend using benzodiazepines and anti-histamines.
- D. Betahistine is as useful as Epley maneuvers.



Click on the buttons to view additional information

Moving Forward

BPPV (Slide Layer)

SCFPCLearn

Review



Answer: Answers A and B are correct.

BPPV

Epley Maneuvers



- BPPV will spontaneously recover in ~20% of patients at one month and ~50% at 3 months.
- Recurrence rates of ~5-10% at one year and ~35% at 4 years have been reported.
- Some patients may need more than one maneuver. Small RCTs show that self-treatment with Epley maneuvers (3 times daily) can improve symptoms.

Moving Forward

Epley Maneuvers (Slide Layer)

SCFPCLearn

Review



Answer: Answers A and B are correct.

BPPV

Epley Maneuvers

- Small RCTs show that Epley maneuvers are more effective than antihistamines (like betahistine).
- It is not known whether betahistine helps to improve residual dizziness after Epley maneuvers.
- A recent guideline recommends against using betahistine (and benzodiazepines or other antihistamines) routinely for patients with BPPV.

Moving Forward

1.12 Create a Plan

Let's Make a Plan

Using what you have learned write a plan for Ms Ottie. It can include any/all of the following: lifestyle intervention(s), prescription intervention(s), lab(s)/test(s) required, follow up appointment time frame, and referral required.

Fill in your plan for the patient here

See how your plan compares

1.13 Plan Answers

Ms Ottie Stone

This is a proposed plan for the patient. How does your plan compare?

Diagnose
Epley Maneuver
Practice
Follow Up

Select details on the left to see suggested recommendations

What's in a name?

Diagnose (Slide Layer)

The screenshot shows a slide layer titled "Ms Ottie Stone" with the SCFPCLearn logo. A navigation sidebar on the left contains icons for information, navigation, and a clock. The main content area has a question: "This is a proposed plan for the patient. How does your plan compare?". Below the question are four blue buttons: "Diagnose", "Epley Maneuver", "Practice", and "Follow Up". A green button labeled "What's in a name?" is at the bottom left. On the right, a light blue box displays the user's response: "You diagnose Ms. Stone with BPPV." with a close button (X) in the top right corner.



Epley Maneuver (Slide Layer)

The screenshot shows a slide layer titled "Ms Ottie Stone" with the SCFPCLearn logo. A navigation sidebar on the left contains icons for information, navigation, and a clock. The main content area has a question: "This is a proposed plan for the patient. How does your plan compare?". Below the question are four blue buttons: "Diagnose", "Epley Maneuver", "Practice", and "Follow Up". A green button labeled "What's in a name?" is at the bottom left. On the right, a light blue box displays the user's response: "She is not sure whether she feels better after the Epley maneuver. You counsel her to repeat it herself later in the day if she still has symptoms." with a close button (X) in the top right corner.

Practice (Slide Layer)

SCFPCLearn

Ms Ottie Stone



This is a proposed plan for the patient. How does your plan compare?

- Diagnose
- Epley Maneuver
- Practice
- Follow Up



What's in a name?

As she doesn't remember how to do it, you practice it together a few times.

Follow Up (Slide Layer)

SCFPCLearn

Ms Ottie Stone



This is a proposed plan for the patient. How does your plan compare?

- Diagnose
- Epley Maneuver
- Practice
- Follow Up



What's in a name?

She will follow up with you if it doesn't improve at all in 48 hours.

Name (Slide Layer)

CFPC Learn

Ms Ottie Stone



This is a proposed plan for the patient. How does your plan compare?

Diagnose

Epley Maneuver

Practice

Follow Up

What's in a name?



What's in a name?

Otoconia are small crystals normally in the sacculle. BPPV occurs when otoconia come loose and flow freely in the semicircular canals. Ottie's name is a hint about her presenting illness.

1.14 References

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References



Thanks for visiting the clinic!

References: Available [here](#).

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