# The Big 3 of Vertigo: Initial approach to the diagnosis of acute vertigo Practical tips

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#### What to do?

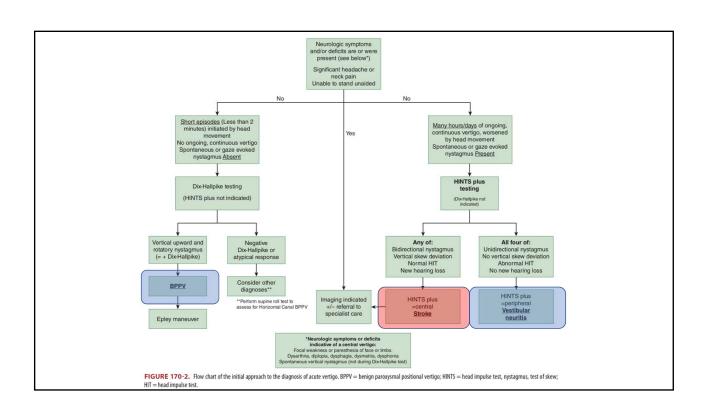
- a) Dix-Hallpike test
- b) CT and/or MRI
- c) HINTS plus exam
- d) Consult neurology
- e) Put down chart, pick up another one

#### The Big 3 of Vertigo

**BPPV** 

Vestibular neuritis

Cerebellar/brainstem stroke syndromes

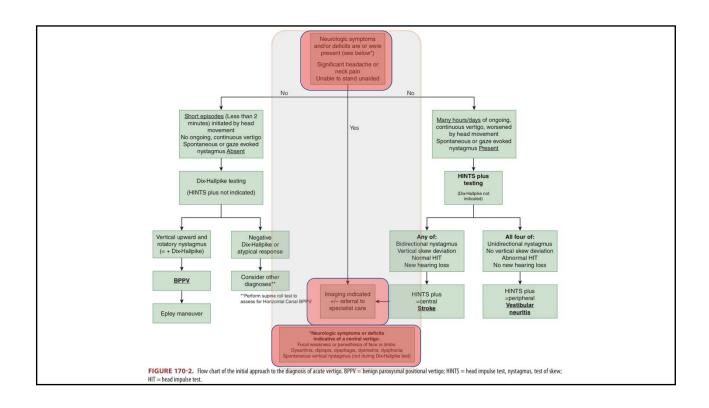


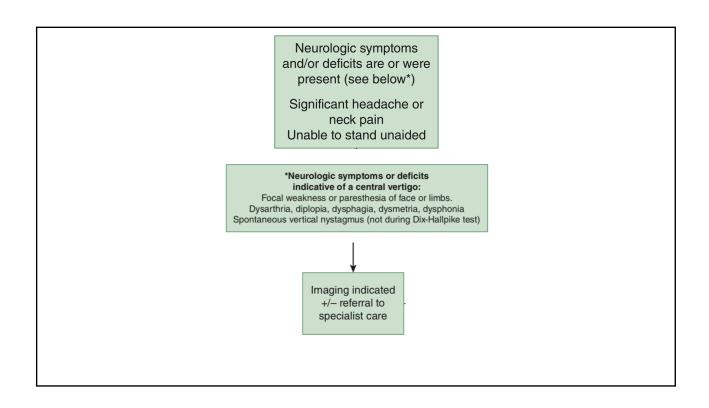
#### What it doesn't do

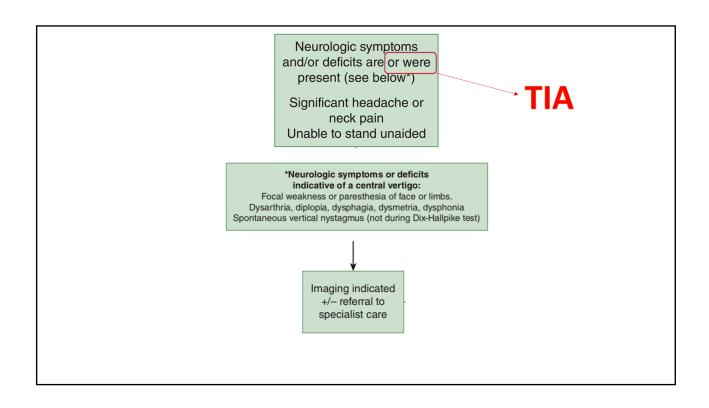
Allow you to diagnose all the causes of acute vertigo

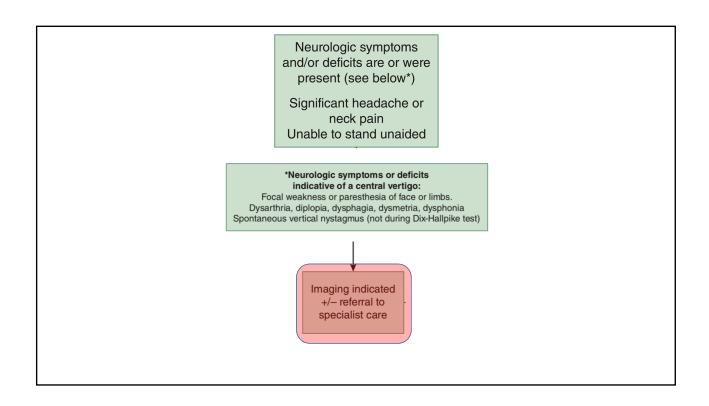
But other diagnoses are not time sensitive for diagnosis











## Patient with short episodes of vertigo (less than two minutes)

Brought on by getting out of bed, getting into bed, rolling over in bed

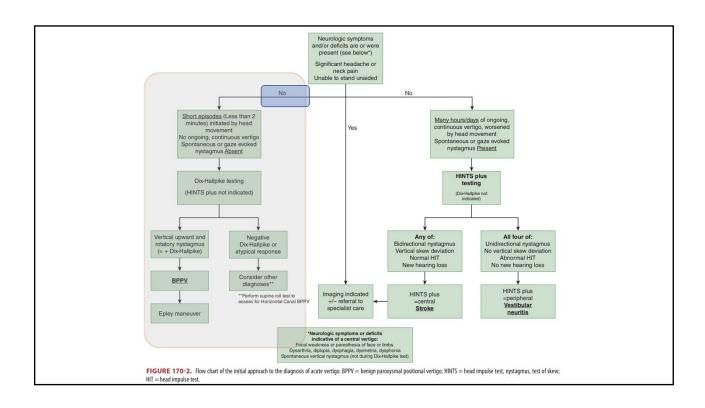
**No** spontaneous or gaze evoked nystagmus

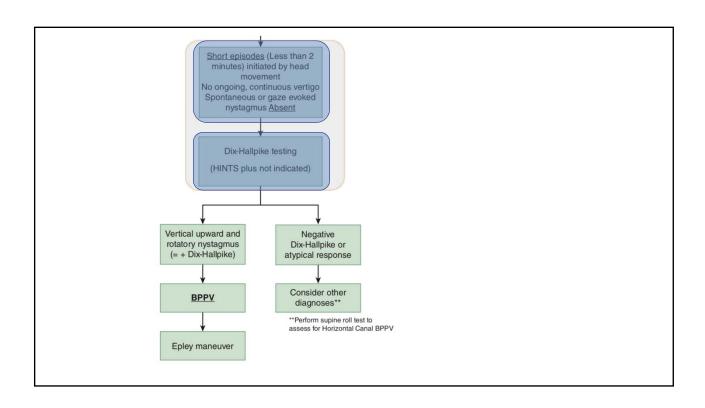
#### Nystagmus

How to look for it

Remove fixation

Don't be fooled by end gaze nystagmus (normal variant)

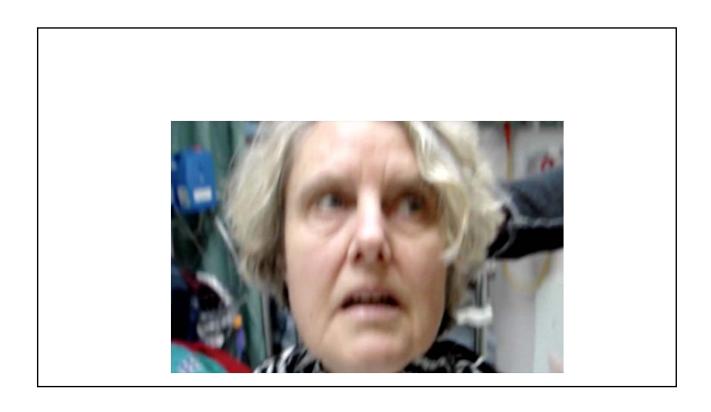


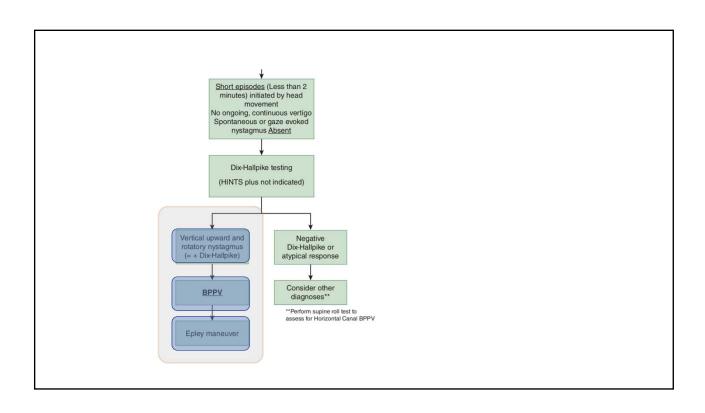


#### Dix-Hallpike Test

How to perform?

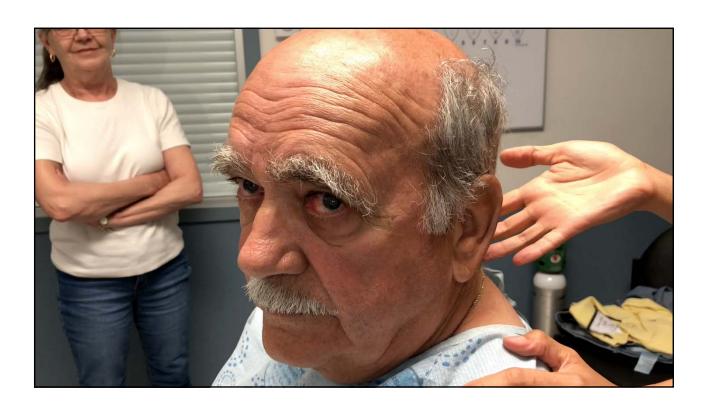


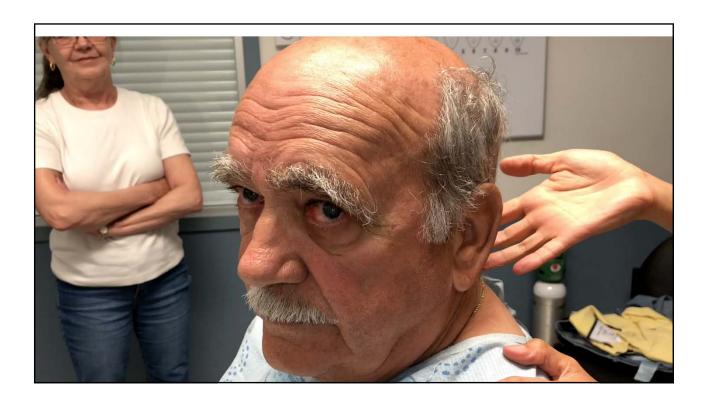


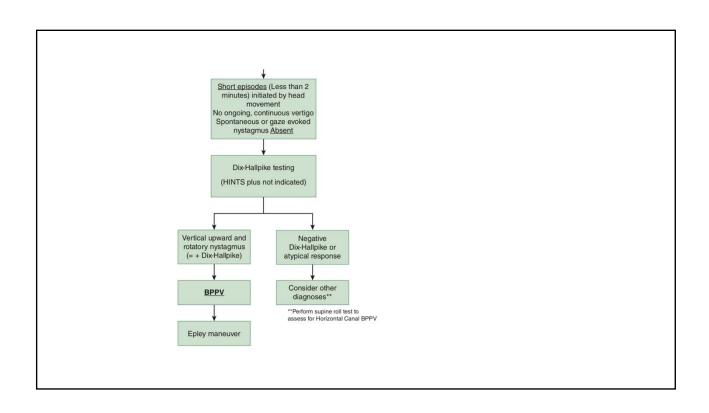


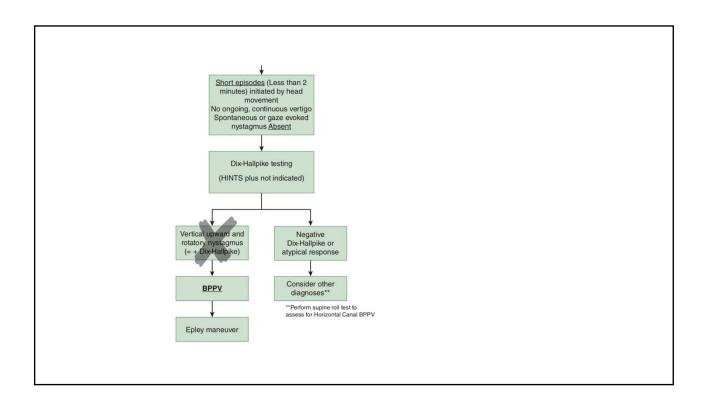
#### Epley maneuver

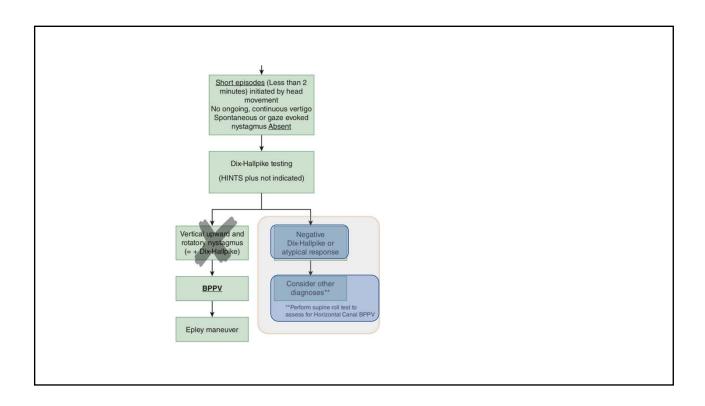
How to do it





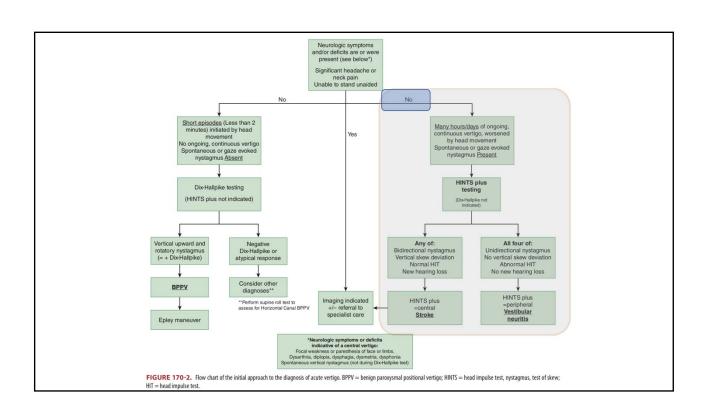


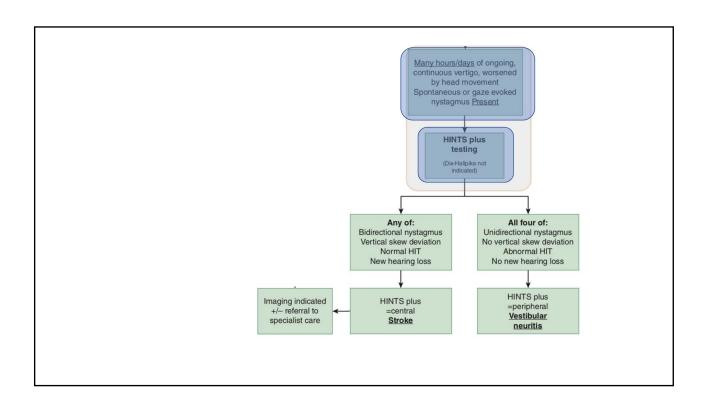




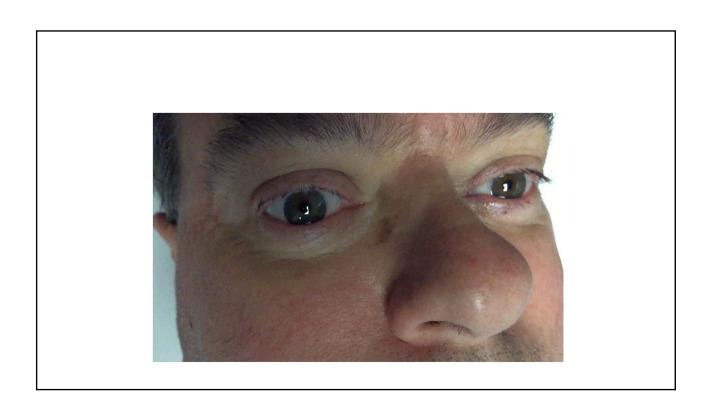
### Patient with constant vertigo lasting hours or days

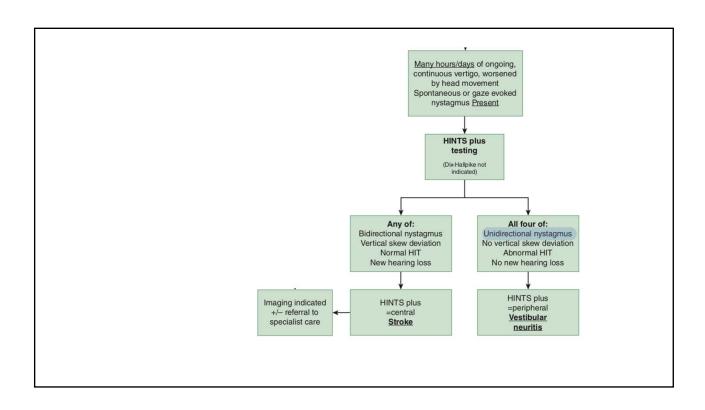
**<u>Has</u>** spontaneous nystagmus and/or gaze evoked nystagmus





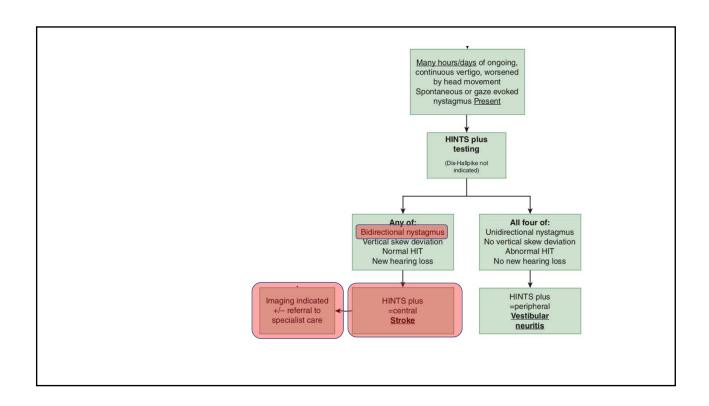






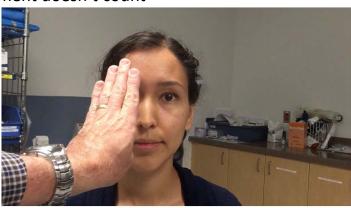






#### Test of Skew

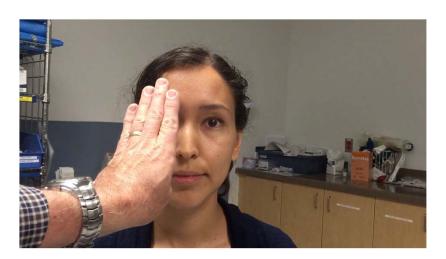
Skew = slanted or vertical
Horizontal movement doesn't count

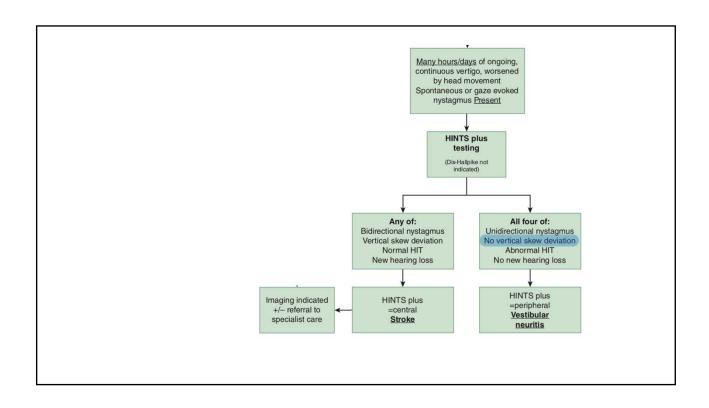


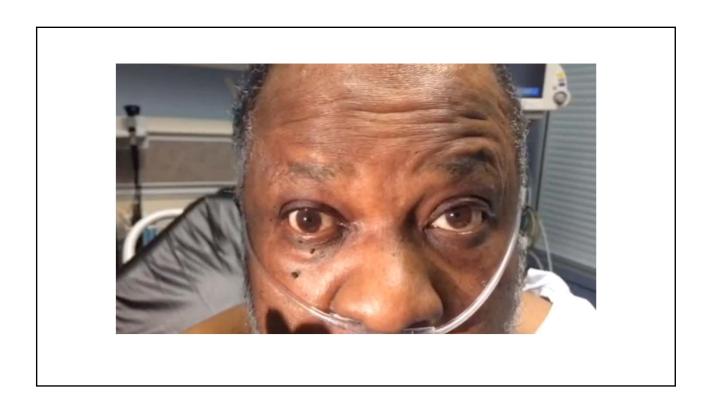
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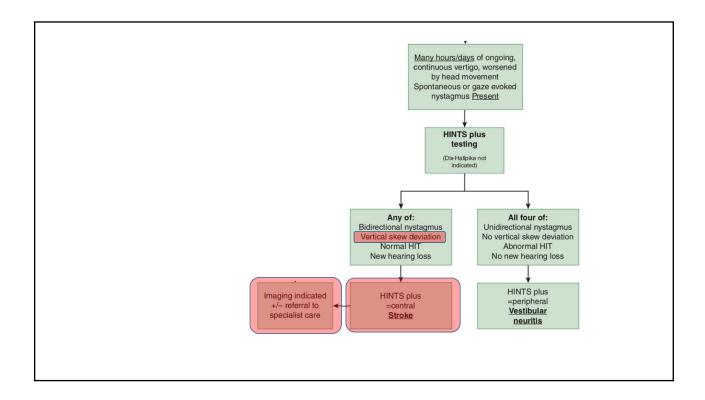
How to perform

#### Test of Skew

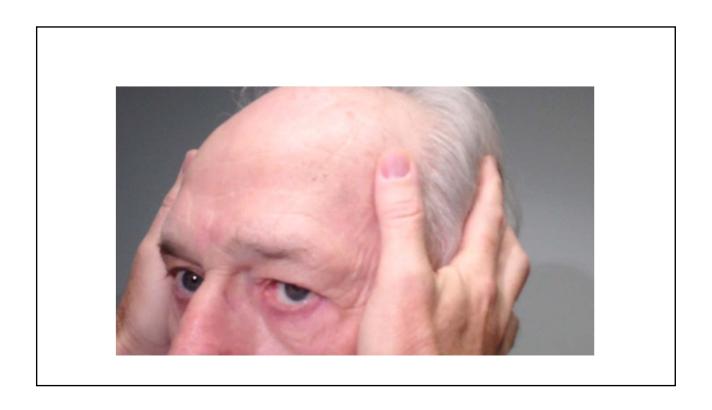


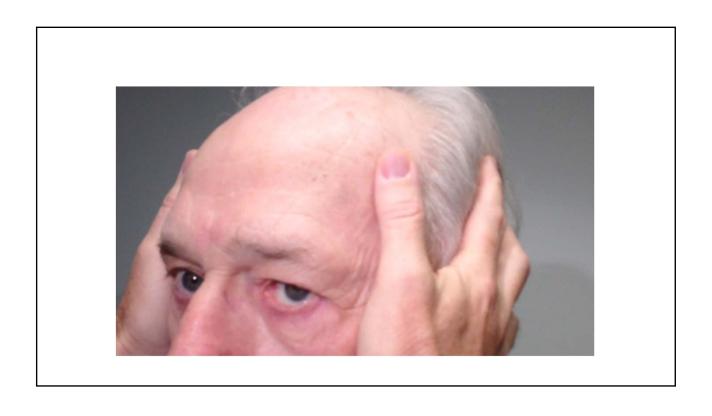






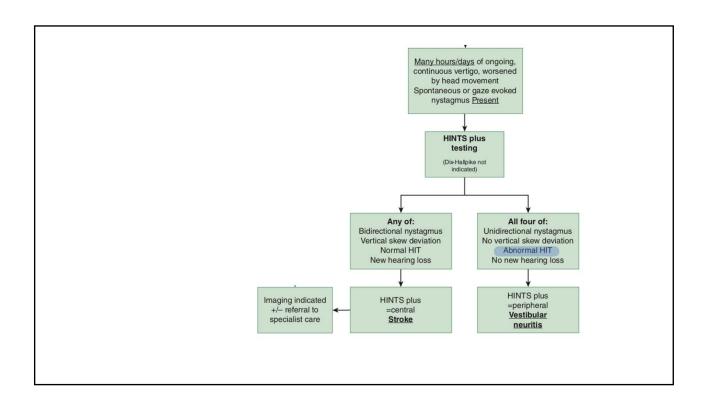
# Head Impulse Test How to perform

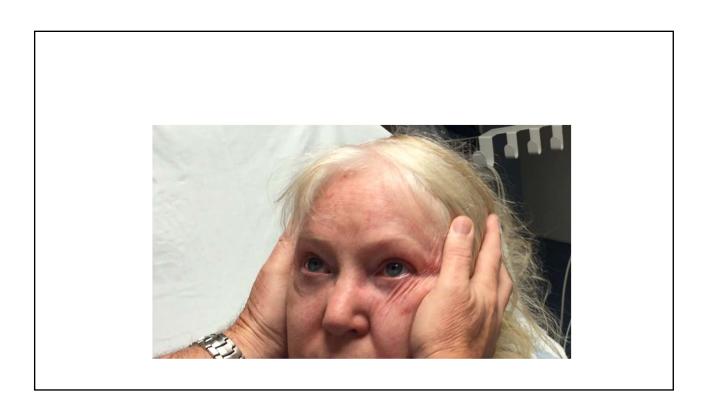


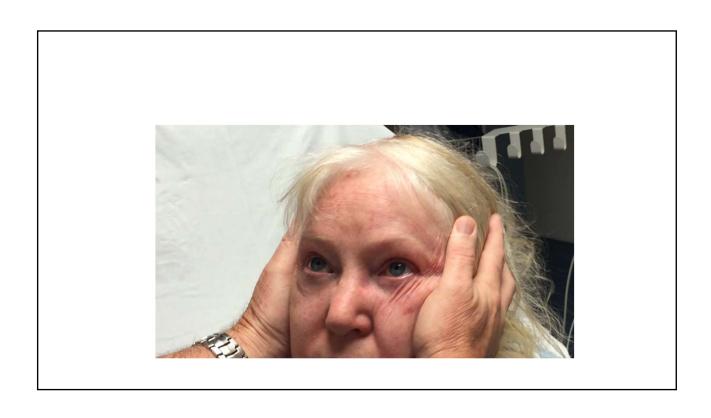


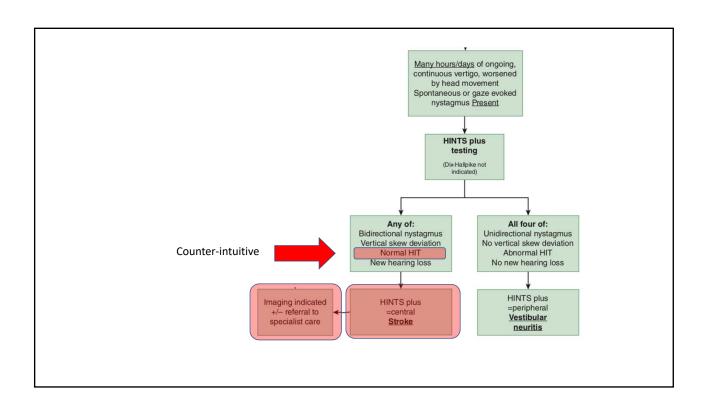










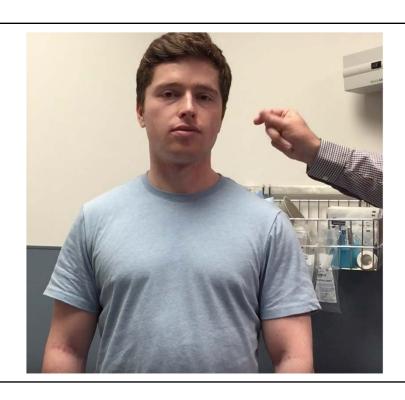


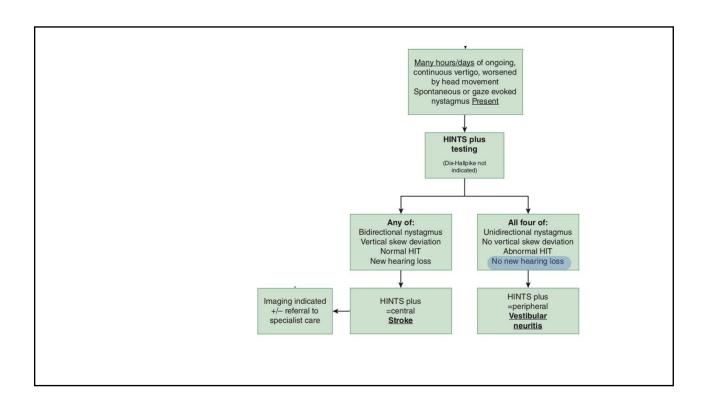
#### Bedside test of hearing

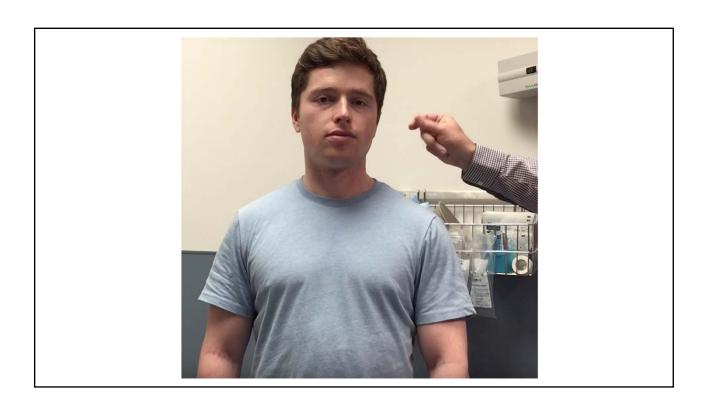
"plus" of HINTS plus

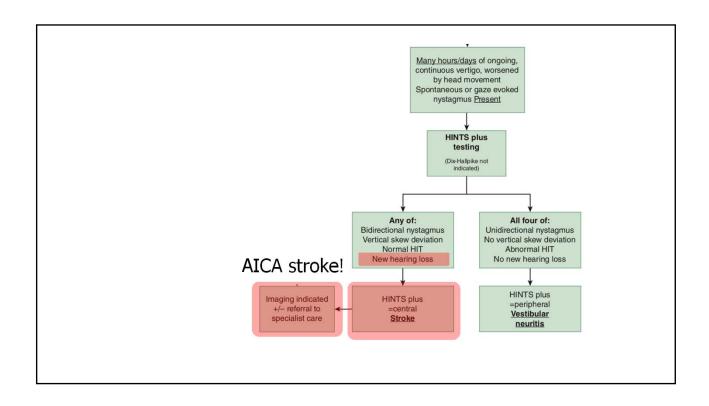
Finger rub test

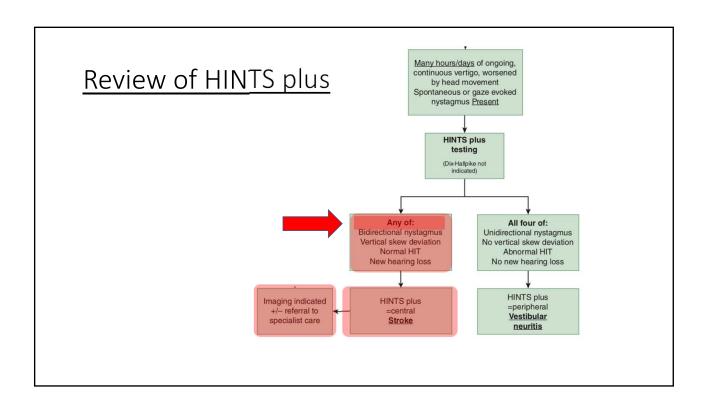
How to peform

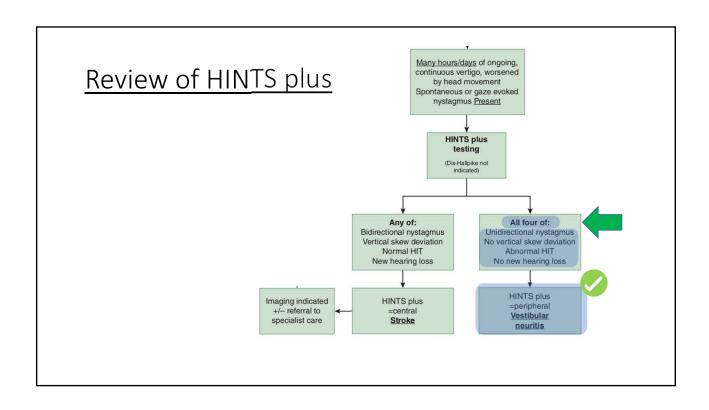
















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#### Charting HINTS plus result:

Screened negative for central features
Unidirectional nystagmus-always beats to the right
No skew deviation
No new hearing loss
HIT abnormal turning head to the left
= HINTS plus peripheral=vestibular neuritis



When do you perform both Dix-Hallpike and HINTS plus exam in same person?

Never

#### Conclusion

- Be vertigo competent!
- Screen for Badness (can't stand or walk, focal weakness, paresthesias, the D's, headache, neck pain, vertical nystagmus)
- Vertigo <2 mins and <u>no</u> nystagmus → Dix-Hallpike → Epley-Cure them!
- Vertigo for hours or days **and** nystagmus → HINTS plus
- Most go home without imaging
- Initial screen positive and/or HINTS plus = central → imaging +/referral
- Patients who don't fit into Big 3 diagnosis, refer for follow up.

#### For quick review on youtube

Peter Johns
"Big 3 of vertigo"

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