MAL DE DEBARQUEMENT SYNDROME

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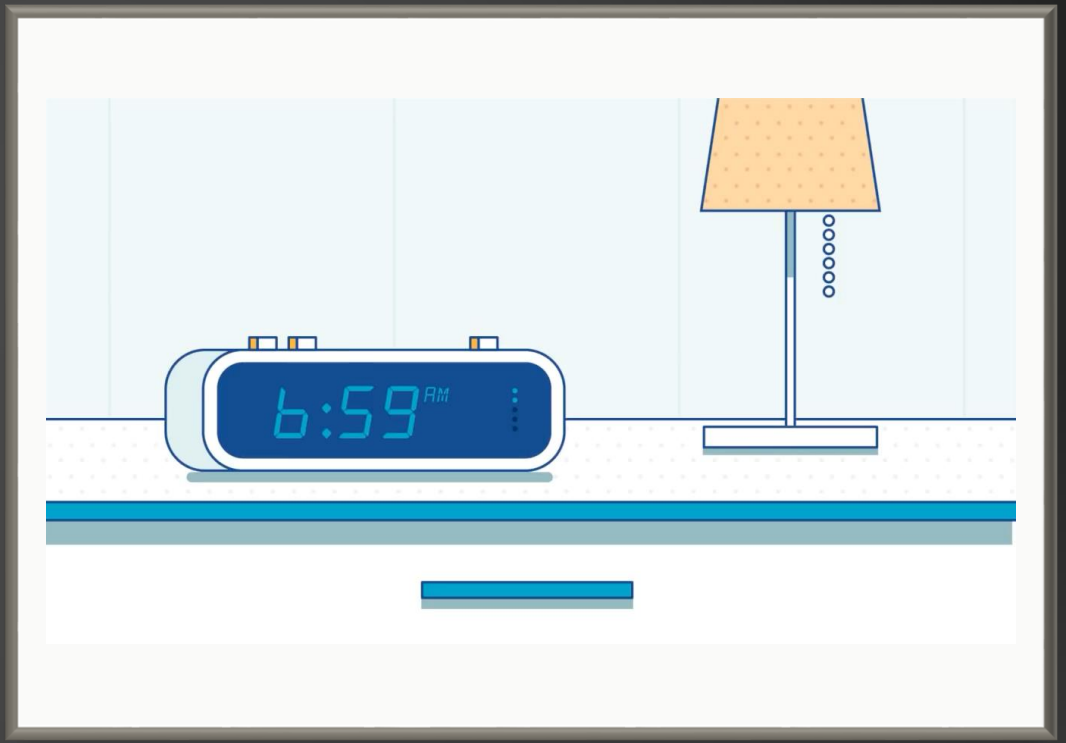
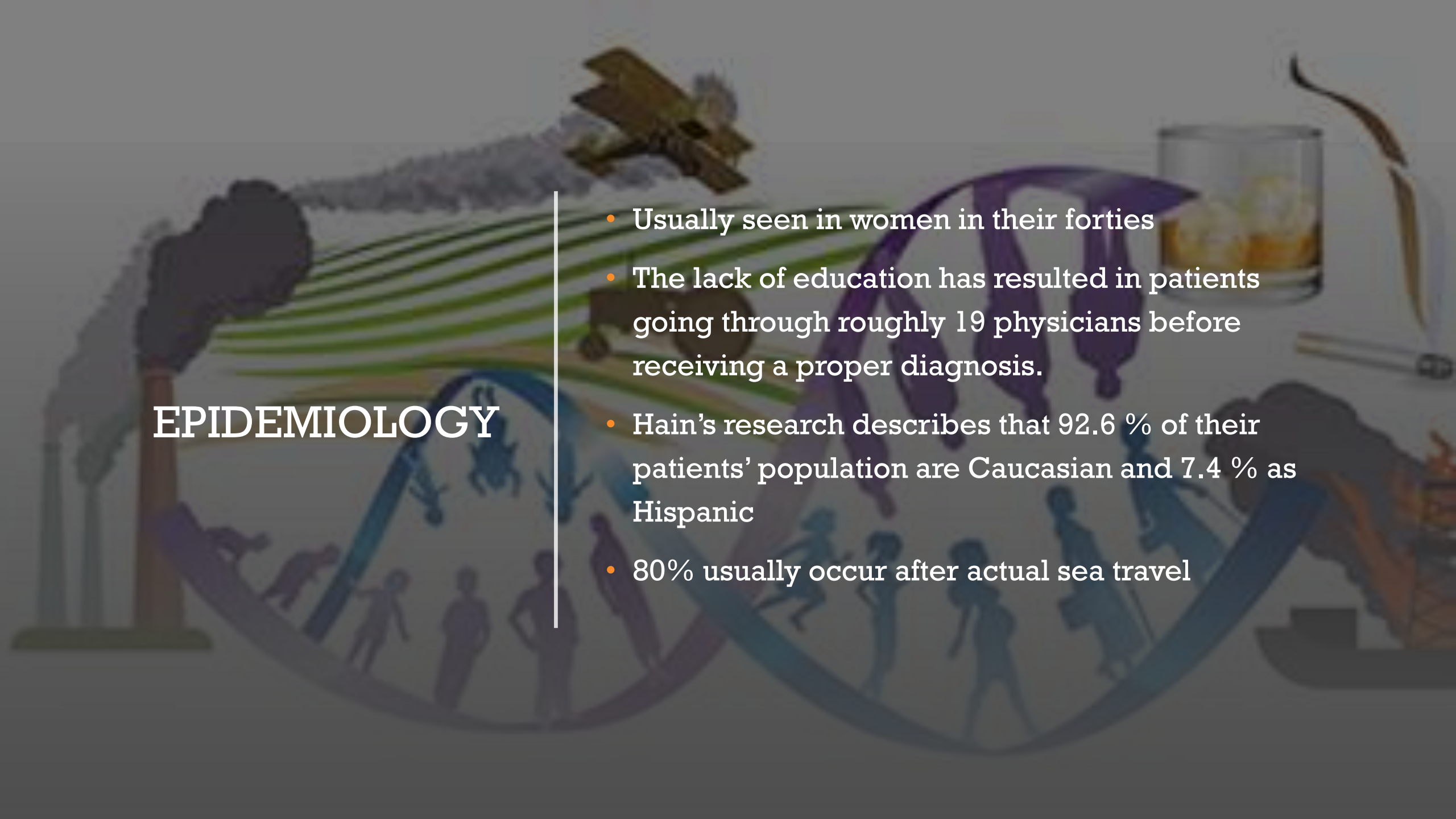
WHAT IS IT?

- It is a maladjusted vestibular motion disorder which is defined by incessant rocking, bobbing, or swaying, followed by disembarkment from a cruise, ground transport, flight, or any passive movement.



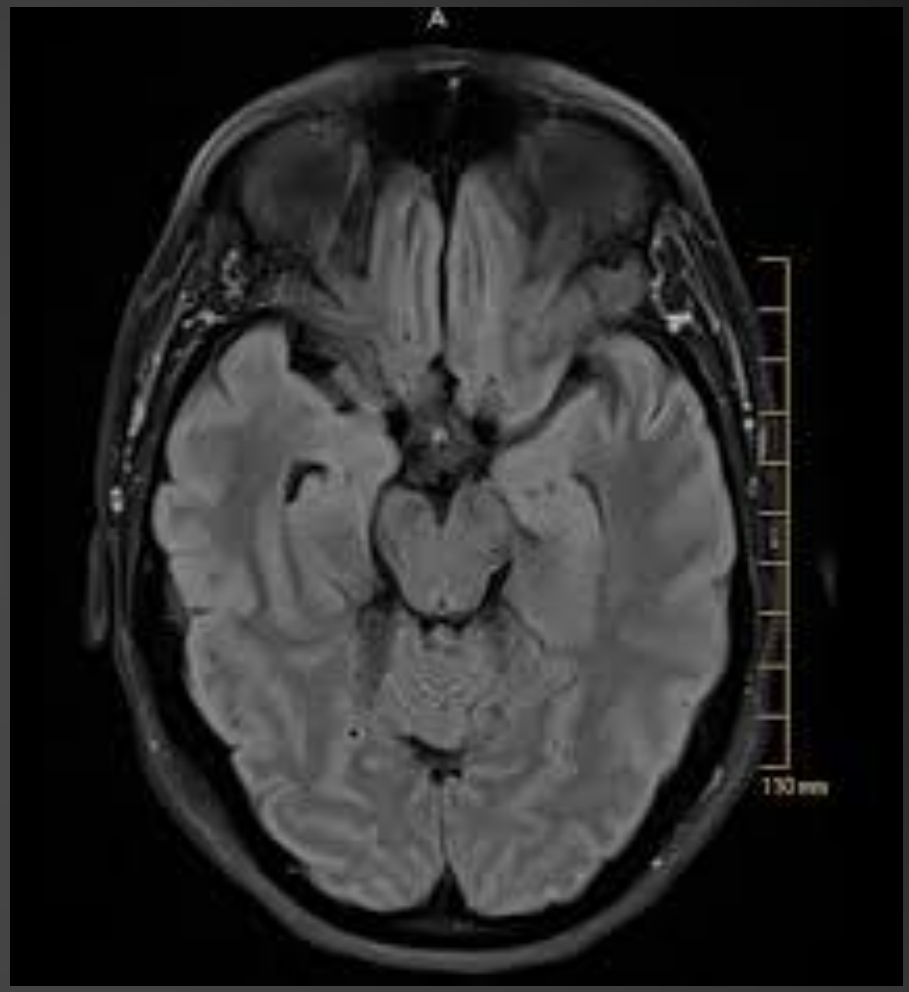


EPIDEMIOLOGY

- Usually seen in women in their forties
- The lack of education has resulted in patients going through roughly 19 physicians before receiving a proper diagnosis.
- Hain's research describes that 92.6 % of their patients' population are Caucasian and 7.4 % as Hispanic
- 80% usually occur after actual sea travel

PATHOGENESIS

- The pathogenesis isn't clearly understood, but research shows that the predominant issue lies within neuroplasticity, specifically with vestibular adaptation.



SYMPTOMS

- Bouncing while walking, an absence of mental clarity, photophobia, phonophobia, lethargy, blurred vision, depression, and anxiety
- Symptoms briefly diminish when patients are re-exposed to passive motion; such as driving a car, but upon the cessation of passive movement, symptoms return and/or are exacerbated.

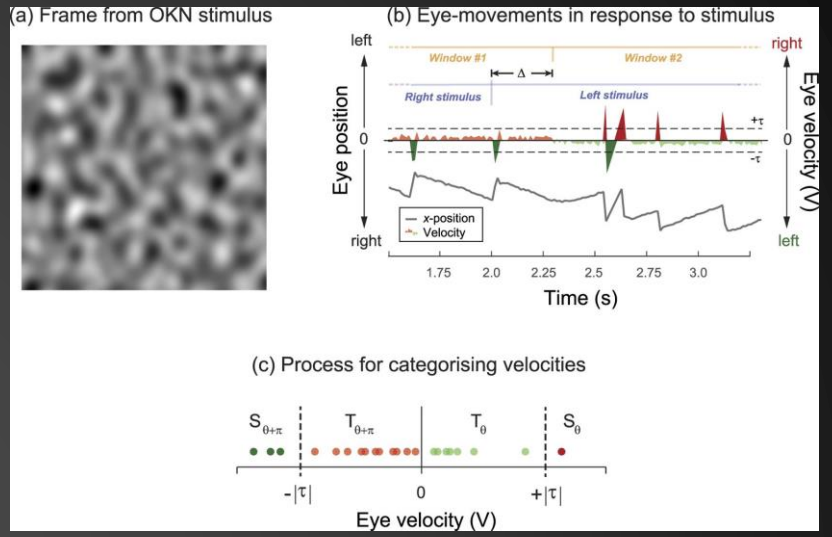
DIFFERENTIAL DIAGNOSIS

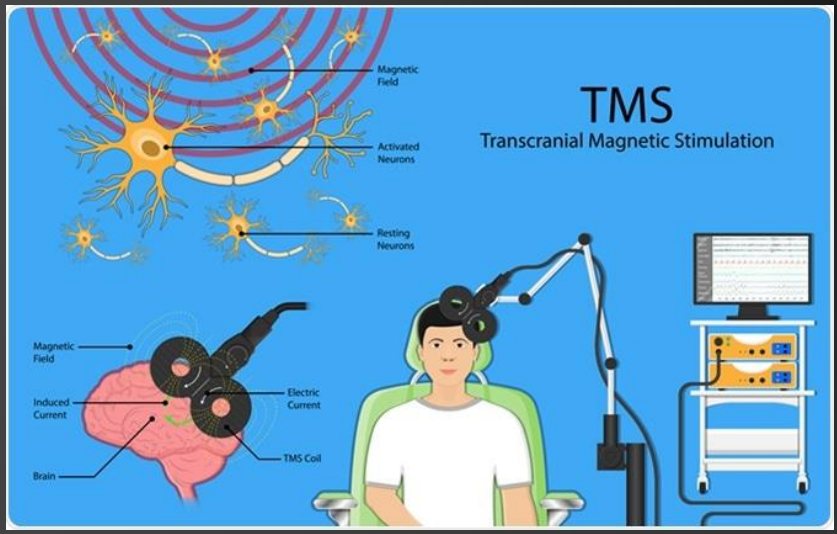
- Motion sickness, migraine-related vestibulopathy, and chronic subjective dizziness
- There are specific tests ran to help distinguish these disorders from MdDs. These tests include a MRI, VNG, audiogram, a CT of the temporal bone, and a cardiological evaluation

	MdDS	Vestibular migraine	Anxiety-related dizziness
Onset	Abrupt, following boat or air travel	Spontaneous, or may follow stress or certain food triggers	More likely after stress, can also be spontaneous
Description of vertigo	Rocking, swaying	Spinning, floating, rocking, motion sensitivity, nausea[7,9]	Rocking, floating, internal spinning[7]
Presence of migraine headaches	Similar to population	Often present	Similar to population
Clinical examination	Normal	Normal, may have unsteadiness on Romberg testing	Normal
Vestibular laboratory testing	Normal	Normal or low-velocity static positional nystagmus[9,15]	Normal
Response to medication	No response usually	Often responds to same medications used to treat migraine[8]	May respond to anxiolytics[16]

TREATMENT

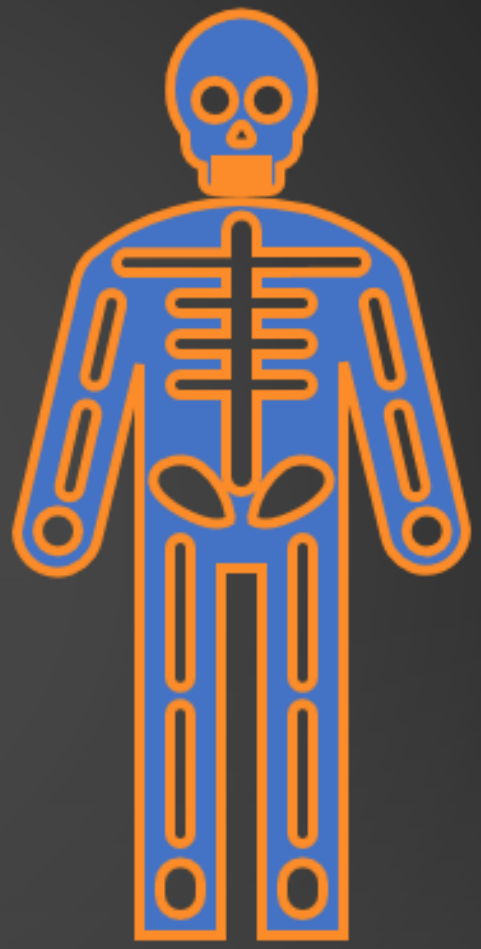
- Vestibulo-ocular reflex (VOR) readaptation is accomplished by rotating the patient's head from side-to-side, while the patient examines a revolving full-field optokinetic nystagmus (OKN) stimulus. This normally consists of 1-8 treatment sessions which is over a span of 5 consecutive days.
- Benzodiazepines alleviates the depression and anxiety temporarily
- Preferred medication is Clonazepam due to its long half life of 30 to 40 hours
- A recent study shows that transcranial magnetic stimulations provide a short-term improvement in depression and anxiety targeted towards the amygdala





PROGNOSIS

- The readaptation of the Vestibular Ocular Reflex has treated more than 500 patients around the world with a 70% success rate
- MdDS has proven to be spontaneous, so if the symptoms don't subside within a month you should visit a physician
- If longer than a month you can rule out vertigo, Ménière's disease, or some other inner ear condition
- Long term prognosis is variable



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