



# MIPHA Club Presentation: Multiple Sclerosis

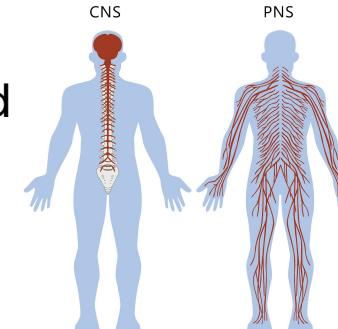
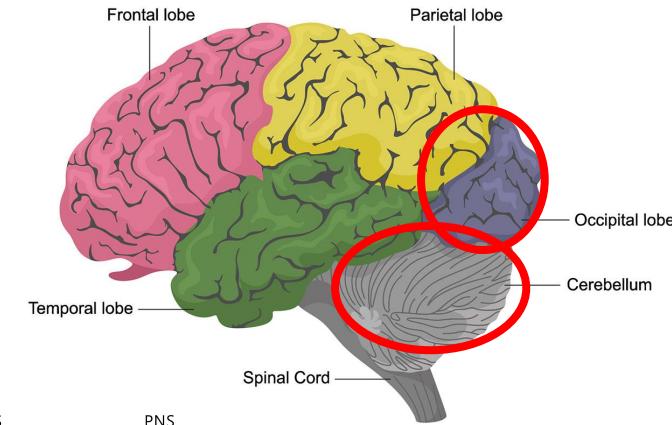
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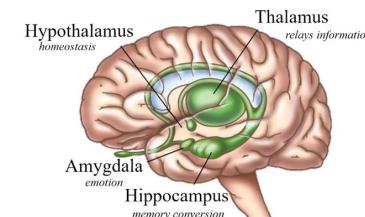
# Symptoms and Associating Brain Parts

- Poor vision: occipital lobe
- Unbalanced: cerebellum
- “Pins and needles”: CNS and PNS
- Tiredness/weak: Pineal gland
- Unhappy (depression)/emotions: amygdala, hippocampus, and hypothalamus

Human Brain Anatomy



The Limbic System



# According to mayo clinic, signs and symptoms may include:

- Numbness or weakness in one or more limbs that typically occurs on one side of your body at a time, or your legs and trunk
- Electric-shock sensations that occur with certain neck movements, especially bending the neck forward (Lhermitte sign)
- Tremor, lack of coordination or unsteady gait
- Partial or complete loss of vision, usually in one eye at a time, often with pain during eye movement



## May also include:

- Prolonged double vision
- Blurry vision
- Slurred speech
- Fatigue
- Dizziness
- Tingling or pain in parts of your body
- Problems with sexual, bowel and bladder function

# Multiple sclerosis (MS)

Multiple sclerosis (MS) is a potentially disabling disease of the brain and spinal cord (central nervous system).

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## Myelin Sheath

- Immune system attacks myelin
- Communication problems
- Permanent damage or deterioration of nerves

## Causes

- Unknown why MS occurs
- Autoimmune disease



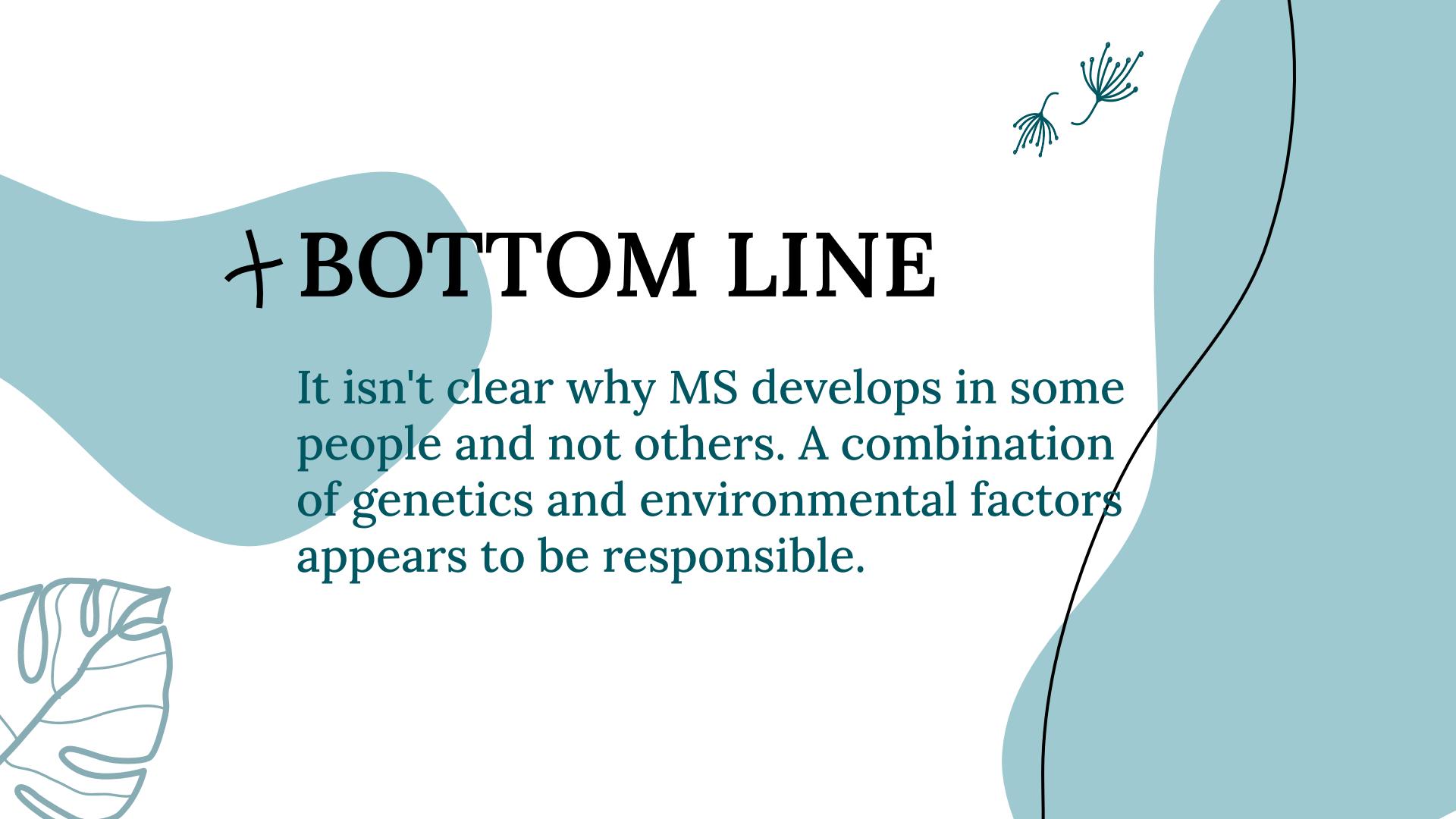
# Risk Factors

- Age
- Gender
- Race
- Family History
- Certain Infections
- Climate
- Vitamin D
- Certain autoimmune diseases
- Smoking

**Age:** Can occur at any age, onset usually (but not always) occurs between 20-40 years old

**Gender:** Women are 2-3 times more likely than men to have relapsing MS

**Family History:** Those with a parent or sibling that has MS have a higher risk of developing the disease.

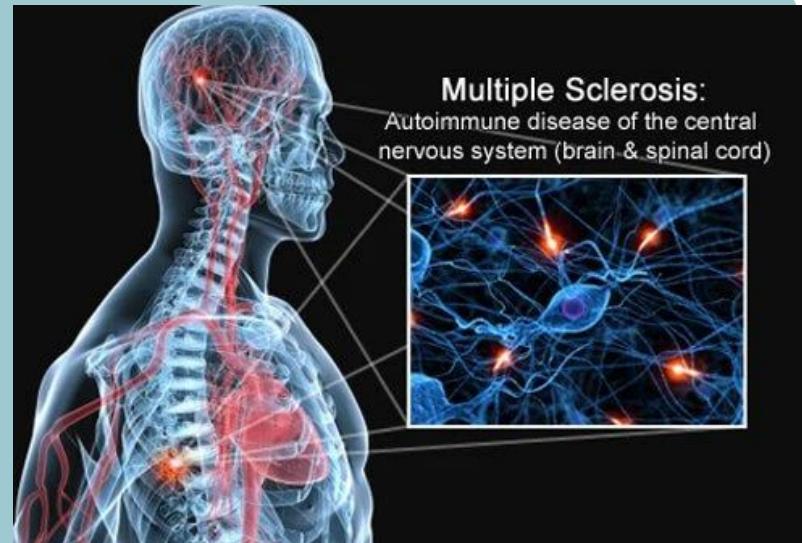


## + BOTTOM LINE

It isn't clear why MS develops in some people and not others. A combination of genetics and environmental factors appears to be responsible.

# Prognosis for Multiple Sclerosis

- Visit neurologist and other professions to verify
- No cure but medication can delay
- Understanding the difference between primary and secondary relapsing Multiple Sclerosis
- Major changes to lifestyle habits
- Different for all patients



# Neurologist

What are they?



- a medical doctor, or specialist, that completes specialized training in diagnosing, treating, and managing disorders of the brain and nervous system

What do they do?

- treat diseases of the brain and spinal cord, peripheral nerves and muscles

How would they help our patient?

- manage her “pins and needles” (CNS and PNS)

# Ophthalmologist

Who are they – An ophthalmologist is a medical or osteopathic doctor who specializes in eye and vision care

Ophthalmologists versus Optometrists – Ophthalmologists complete 12 to 13 years of training and education, and are licensed to practice medicine and surgery



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What they do - they diagnose and treat all eye diseases, performs eye surgery, and prescribes and fits eyeglasses and contact lenses to correct vision problems. Many are also involved in scientific research on the causes and cures for eye diseases and vision disorders



Can improve quality of life for patient - Our patient can benefit from getting her eyes checked to see what may be the cause to her "blurry vision" and relieve potential pain not cure it

# Psychiatrist

- A medical doctor who specializes in mental health, including substance use disorders.
- a psychiatrist can order or perform a full range of medical laboratory and psychological tests which, combined with discussions with patients, help provide a picture of a patient's physical and mental state
- a psychiatrist can help Helen deal with her depression





# Audiologist

- Who are they?
  - +help to prevent, diagnose, and treat hearing and balance disorders
- What do they do?
  - +Examine patients who have hearing, balance, or related ear problems.

- How would an audiologist help Helen?
  - +An audiologist could diagnose Helen with balance problems relating to the fluid in the inner ear that relates to balance and positioning, and later leading to the cerebellum.



# Physical Therapist (PTs)

- Who are they?
  - Doctors who evaluate and record a patient's improvement on their movements and managing pain
- How would they help our patient?
  - Improve her balance
  - Strengthen her muscles/joints little by little



# continued

- What do they do?
  - Care for patients that have functional body problems
    - back/neck injuries, neurological disorders, sprains, strains.
  - Use variety of techniques
    - Walkers, special movements, resistance bands, yoga ball, etc.)
  - Important in preventative care, rehabilitation, and treatment for patients with chronic conditions, illnesses, or injuries



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