



MULTIPLE SCLEROSIS FACT SHEET



MAYTEE, DIAGNOSED IN 2015



JOSEPH (L), DIAGNOSED IN 2008



JOSHUA (CENTER), DIAGNOSED IN 2015

DEFINITION

Multiple sclerosis (MS) is a chronic, inflammatory disease that involves immune-mediated attacks on the central nervous system. It is characterized by relapses and remissions of neurological symptoms and progression of functional disability over time. Abnormal immune activity creates inflammation and damages myelin sheaths, axons and oligodendrocytes.

EPIDEMIOLOGY

MS is usually diagnosed between the ages of 20 and 50 with a worldwide prevalence of greater than 2.8 million. It is less frequently diagnosed in young children and older adults. Women are more likely to develop MS than men. While people of all racial and ethnic groups can develop MS, susceptibility rates vary among these groups. Research has shown that the incidence of MS among Black Americans is consistent with the incidence of MS in white Americans. Black people with MS may have more aggressive disease progression and greater disability; access to healthcare services may be a factor.

ETIOLOGY

While the cause of MS is unknown, a combination of environmental and genetic factors may trigger immune dysregulation and contribute to a person's risk of developing the disease.

ENVIRONMENT FACTORS



- Smoking (active and passive)
- Low vitamin D
- Obesity in childhood and adolescence
- Epstein-Barr virus exposure

GENETIC FACTORS



Over 200 genes have been identified that confer some increased risk for the development of MS.

FAMILIAL RISK



- 0.3% for the general population
- 25% for an identical twin
- Increased risk when first-degree relatives have MS, but far less than in identical twins

DIAGNOSIS

MS IS A CLINICAL DIAGNOSIS:

- Medical history suggestive of CNS process
- Neurological exam findings

PARACLINICAL TESTS PROVIDE SUPPORT:

- Magnetic resonance imaging
- Spinal fluid analysis
- Serum analysis

DIAGNOSTIC CRITERIA:

- Dissemination in time and space: evidence that damage has occurred in at least two separate areas of the CNS at different points in time
- There must be no other explanation

SIGNS AND SYMPTOMS CONSISTENT WITH MS

- **Visual:** optic neuritis, blurred vision, unilateral vision loss, oscillopsia, diplopia, nystagmus
- **Motor:** trunk/extremity weakness, spasticity, hyperreflexia, gait disturbance, imbalance
- **Sensory:** numbness, paresthesias, dysethesias, Lhermitte's sign, squeezing around torso, proprioception deficits, trigeminal neuralgia
- **Cerebellar:** tremor, ataxia, incoordination
- **Bladder and Bowel Dysfunction:** urinary frequency, urgency or retention, incontinence, frequent UTI, and constipation
- **Mood and Cognition:** depression, anxiety or impairment of memory, attention, concentration or information speed processing

TREATMENT

Management of MS across the lifetime requires a comprehensive and holistic approach, including rehabilitation, specialty care and lifestyle management interventions. Disease modifying therapies are available to reduce the frequency of relapses and delay progression of disability. Relapses can be treated with high-dose glucocorticoids. Symptoms can be managed with medications and non-pharmacological strategies, like PT/OT, cognitive behavioral therapy and SLP.

LIFESTYLE INTERVENTIONS & PREVENTIVE HEALTH MEASURES

- Educate on modifiable risk factors
 - » Smoking cessation
 - » Monitoring vitamin D level to ensure an optimal level is obtained
 - » Whole food diet — colorful fruits, vegetables, lean meat/seafood, whole grains
 - » Regular exercise routine — combination of aerobic, strength and stretching activity
 - » Stress reduction — meditation, mindfulness, breathing techniques
 - » Healthy sleep hygiene
 - » Social support and connection
- Maintain consistent primary care engagement
 - » MS is not typically a fatal disease. People with MS live an average of 7 years less than the general population due to disease complications or comorbidities. Complications and comorbidities can be managed and, in some cases, prevented with consistent primary care engagement.

RESOURCES & SUPPORT



nationalMSSociety.org/PRC



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National
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nationalMSSociety.org
1-800-344-4867