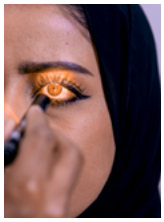
MAY 2024

Understanding Multiple Sclerosis
A Quick Guide











01

ABOUT MULTIPLE SCLEROSIS (MS)

Multiple Sclerosis (MS) is a chronic, unpredictable condition of the central nervous system that disrupts the flow of information between the brain and spinal cord. The cause of MS is unknown. It is an individual condition, and MS symptoms vary greatly from person to person. There is no cure for MS, but early diagnosis and treatment are crucial for improving long-term health and well-being and reducing the frequency of relapses. Treatment at any stage of the condition offers benefits, and research is ongoing.

GLOBAL LANDSCAPE

Epidemiology & Prevalence of MS

3.1

MS prevalence has increased worldwide, with **3.1 million** cases reported in 2026.[21]

32 YEARS

MS can affect individuals of any age, but **the average diagnosis age globally is 32 years**. Globally, **MS affects 0.13 to 0.6 children and teenagers per 100,000 per year.**[4,21]

MS prevalence is rising in the Middle East, with the UAE transitioning to a moderately-high risk zone.[4]



64 / 100K

Abu Dhabi's prevalence is 64 per 100,000.[22]

7 / 100K

Dubai, 7 out of 100,000 Emiratis are newly diagnosed with MS each year.[2]

19 / 100K

The number of people with MS in the UAE is estimated to be approximately 19 out of every 100,000 people, according to studies from 2011 to 2016.[2,22]

More young people in the UAE are diagnosed with MS compared to other regions.[23]

26 YEARS

MS commonly begins in **young adults**, with an average age of onset of around 26 in the UAE.[3]

75% of Emiratis with MS are diagnosed when they are younger than **30 years of age**.[3]

7 / 100K

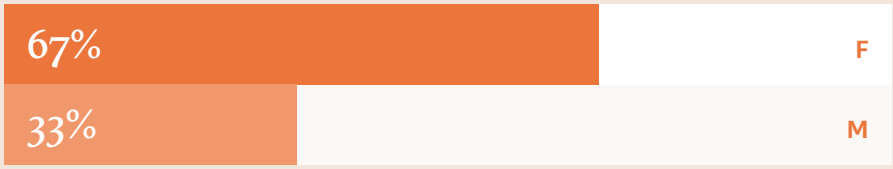
Approximately **7 out of 100,000 teenagers** between the ages 15-19 years are diagnosed with MS each year, in Abu Dhabi.[23]

The **prevalence** of MS may be **underestimated** among expats in the UAE.[22]

Lack of comprehensive MS data **impact accurate prevalence** and burden of MS.[24]

People with MS might choose to **return to their home countries for medical treatment** due to reasons such as their disability accessibility challenges, and the **high cost of treatment**.[22]

Females are **twice as likely** to have MS. 67% of females vs 33% of males in the UAE.[2]



02

TYPES OF MS

MS may present as relapsing-remitting or progressive forms.

CLINICALLY ISOLATED SYNDROME (CIS)

Is an initial episode of MS-like symptoms lasting at least 24 hours. It could indicate a risk of future MS development. It's a precursor, not a definitive diagnosis.[5]



RELAPSING-REMITTING MS

Includes periods of worsening symptoms followed by partial or complete recovery. The most common form of MS.[6]



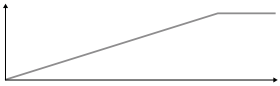
SECONDARY PROGRESSIVE MS (SPMS)

Follows RRMS. Characterized by a gradual worsening of symptoms over time, with fewer or no relapses.[6]



PRIMARY PROGRESSIVE MS (PPMS)

Is marked by a steady progression of symptoms from onset, without distinct relapse and remission phases.[6]



03

SYMPTOMS OF MS



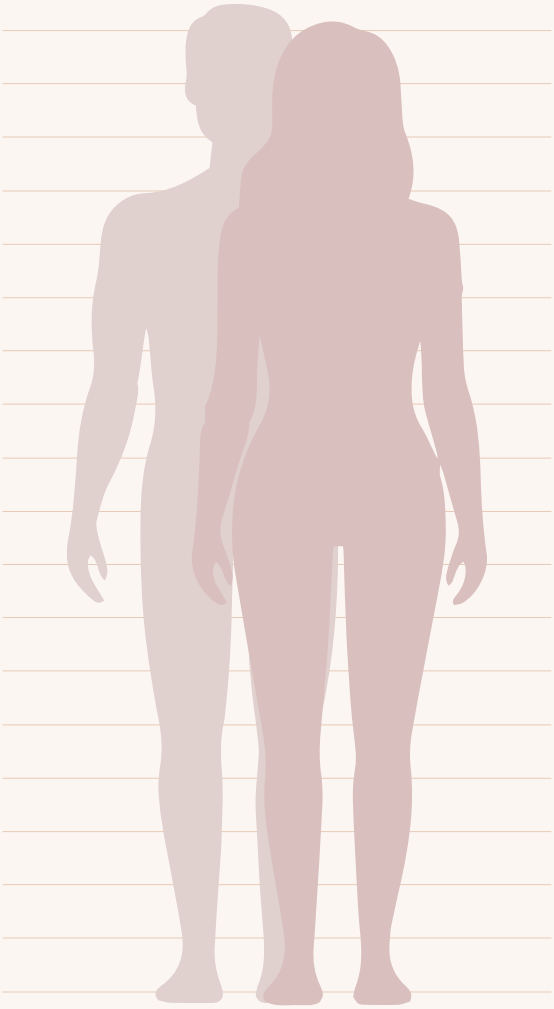
MS symptoms can include **movement and coordination issues, visual disturbances and fatigue.**[7]



Increased body temperature worsens symptoms in 80% of cases.[11]



Visual problems occur in 80% of cases.[9]





Bladder-related symptoms occur in 80% of cases.[10]



Movement and coordination issues are experienced by up to 84% of PwMS. This can lead to **difficulty walking, falls, tiredness, muscle spasms** and even a greater chance of needing a wheelchair.[8]

Impact on Daily Life



Pain and mobility issues can affect everyday tasks like walking, working, and household chores.[7]



MS can lead to **depression and anxiety**, emphasizing the need for mental health support.[15]



Fatigue, experienced by about 80% of people with MS, necessitates energy conservation and rest.[14]



Muscle weakness, balance problems, and **gait disorders** can impact mobility, requiring adaptive aids and physical therapy.[7]



Headaches, extremity pain, and muscle spasms[13] are common MS symptoms that require effective pain management strategies.[12]



MS-related symptoms could **affect work engagement**, requiring workplace flexibility and support.[15] **People with MS are less likely to be employed, even if their disability is mild.**[1]

04

CAUSES AND RISK FACTORS

The exact cause of MS is still unknown, however a mix of factors may increase the risk of triggering MS.

GENETICS

Having a family member with MS increases risk, but genes aren't the sole cause. Lifestyle and environment play a role.[16]



LIFESTYLE AND ENVIRONMENTAL FACTORS

Low vitamin D levels, smoking, and obesity are linked to higher MS risk.[17,18,20]



THE EPSTEIN-BARR VIRUS

Research suggests a link between the Epstein-Barr virus and MS.[19] However, MS is not contagious.[18]



05

SOCIOECONOMIC IMPACT



Treatment and care can incur **significant costs**, including **medical expenses** and **lost income**.[25]



MS can affect **participation in society, remaining in the workforce, and relationships**.[26]



MS can lead to **depression and anxiety**, impacting mental well-being.[15]



Challenges to access necessary treatments due to **high medication costs** and low **insurance limits**.[21,25]



Caregivers need **emotional and physical support**.[27]

PUBLISHED BY THE NATIONAL MS SOCIETY

The National Multiple Sclerosis Society (NMSS), is dedicated to bettering the lives of people with MS and their communities through education, advocacy, and contributing to global research for a cure.

NMSS strives to raise awareness of MS, establish a comprehensive support system for the MS community in the UAE, and provide resources to those impacted by the condition.

REFERENCES

1. Giovannoni G, Butzkueven H, Dhib-Jalbut S, Hobart J, Kobelt G, Pepper G, et al. Brain health: time matters in multiple sclerosis. Vol. 9, Multiple Sclerosis and Related Disorders. Elsevier B.V.; 2016. p. S5–48.
2. Inshasi J, Thakre M. Prevalence of multiple sclerosis in Dubai, United Arab Emirates. International Journal of Neuroscience. 2011 Jul;121(7):393–8.
3. Ahmed M, Mir R, Shakra M, Al Fardan S. Multiple Sclerosis in the Emirati Population: Onset Disease Characterization by MR Imaging. Mult Scler Int. 2019 Nov 25;2019:1–6.
4. Zeineddine M, Al-Hajje A, Salameh P, Helme A, Thor MG, Boumediene F, et al. Barriers to accessing multiple sclerosis disease-modifying therapies in the Middle East and North Africa region: A regional survey-based study. Mult Scler Relat Disord. 2023 Nov 1;79.
5. National Multiple Sclerosis Society [Internet]. [cited 2024 Apr 1]. Available from: https://www.nationalmssociety.org/What-is-MS/Types-of-MS/Clinically-Isolated-Syndrome-(CIS)
6. National Multiple Sclerosis Society [Internet]. [cited 2024 Apr 1]. Available from: https://www.nationalmssociety.org/What-is-MS/Types-of-MS
7. National Multiple Sclerosis Society [Internet]. [cited 2024 Apr 1]. Available from: https://www.nationalmssociety.org/understanding-ms/what-is-ms/ms-symptoms
8. Hugos CL, Cameron MH. Assessment and Measurement of Spasticity in MS: State of the Evidence. Vol. 19, Current Neurology and Neuroscience Reports. Current Medicine Group LLC 1; 2019.
9. Frohman EM, Meltzer E. A RESOURCE FOR HEALTHCARE PROFESSIONALS DIAGNOSIS AND MANAGEMENT OF VISION PROBLEMS IN MS. 2018.
10. nationalmssociety.org [Internet]. [cited 2024 Apr 1]. Available from: https://www.nationalmssociety.org/Symptoms-Diagnosis/MS-Symptoms/Bladder-Dysfunction
11. Frohman TC, Davis SL, Beh S, Greenberg BM, Remington G, Frohman EM. Uhthoff's phenomena in MS - Clinical features and pathophysiology. Vol. 9, Nature Reviews Neurology. 2013. p. 535–40.
12. NHS [Internet]. Available from: www.nhs.uk/nhs-services/
13. Foley PL, Vesterinen HM, Laird BJ, Sena ES, Colvin LA, Chandran S, et al. Prevalence and natural history of pain in adults with multiple sclerosis: Systematic review and meta-analysis. Vol. 154, Pain. Elsevier B.V.; 2013. p. 632–42.
14. Gromisch E. National Multiple Sclerosis Society [Internet]. [cited 2024 Apr 1]. Available from: https://www.nationalmssociety.org/Symptoms-Diagnosis/MS-Symptoms/Fatigue
15. Rodriguez-Rincon D, Leach B, Pollard J, Parkinson S, Gkousis E, Lichten C, et al. Exploring the societal burden of multiple sclerosis: A study into the non-clinical impact of the disease, including changes with progression [Internet]. 2019. Available from: www.randeurope.org
16. Olsson T, Barcellos LF, Alfredsson L. Interactions between genetic, lifestyle and environmental risk factors for multiple sclerosis. Vol. 13, Nature Reviews Neurology. Nature Publishing Group; 2016. p. 26–36.
17. Sintzel MB, Rametta M, Reder AT. Vitamin D and Multiple Sclerosis: A Comprehensive Review. Vol. 7, Neurology and Therapy. Springer Healthcare; 2018. p. 59–85.
18. National Multiple Sclerosis Society [Internet]. [cited 2024 Apr 1]. Available from: https://www.nationalmssociety.org/What-is-MS/MS-FAQ-s
19. Bjornevik K, Münz C, Cohen JI, Ascherio A. Epstein–Barr virus as a leading cause of multiple sclerosis: mechanisms and implications. Vol. 19, Nature Reviews Neurology. Nature Research; 2023. p. 160–71.
20. Hempel S, Graham GD, Fu N, Estrada E, Chen AY, Miake-Lye I, et al. A systematic review of modifiable risk factors in the progression of multiple sclerosis. Vol. 23, Multiple Sclerosis. SAGE Publications Ltd; 2017. p. 525–33.
21. Global prevalence of multiple sclerosis surpasses 3 million: 2024 update of the Multiple Sclerosis International Federation Atlas of MS. Available from: https://journals.sagepub.com/doi/10.1177/13524585261479954
22. Schiess N, Huether K, Fatafta T, Fitzgerald KC, Calabresi PA, Blair I, et al. How global MS prevalence is changing: A retrospective chart review in the United Arab Emirates. Mult Scler Relat Disord. 2016 Sep 1;9:73–9.
23. Ismail FY, Gordon-Lipkin E, Huether K, Blair I, Szólics M, Alsaadi T, et al. Pediatric Multiple Sclerosis in the United Arab Emirates: Characteristics From a Multicenter Study and Global Comparison. J Child Neurol. 2018 May 1;33(6):422–7.
24. Al Jumah M. The need for a multiple sclerosis registry in the Gulf Region [Internet]. Available from: https://www.researchgate.net/publication/261748646
25. Kanavos P, Tinelli M, Efthymiadou O, Visintin E, Grimaccia F, Mossman J. Towards better outcomes in multiple sclerosis by addressing policy change The International MultiPlE Sclerosis Study (IMPrESS). 2016.
26. Rachel King. Mapping multiple sclerosis around the world key epidemiology findings Atlas of MS 3 rd edition [Internet]. 2020. Available from: www.atlasofms.org
27. Maguire R, Maguire P. Caregiver Burden in Multiple Sclerosis: Recent Trends and Future Directions. Vol. 20, Current Neurology and Neuroscience Reports. Springer; 2020.