





Impact of Multiple Sclerosis Symptoms (IMSS) in Denmark

Despite progress in multiple sclerosis (MS) care, healthcare systems across Europe still lack a **coordinated and prioritised approach** to managing MS symptoms effectively. MS is a lifelong neurological condition affecting more than 1.2 million people in Europe, yet many continue to face gaps in care and support.

The European Multiple Sclerosis Platform (EMSP) is spearheading research to understand how people with MS experience and manage their symptoms across the continent. By **identifying disparities** EMSP aims to promote stronger collaboration among key stakeholders to effectively address unmet needs.

The Impact of Multiple Sclerosis Symptoms (IMSS) initiative seeks to drive policy change, improve care pathways, and enhance rehabilitation outcomes, ensuring that people with MS receive the **comprehensive support** they deserve.

Alma's story is just one example of how MS reshapes lives — and why understanding these experiences is crucial for improving care.



EMSP and **24** national MS societies across **22** European countries collected real-life evidence on MS symptoms and management. Behind these findings are real people, each with their own challenges, uncertainties, and hopes.



In Denmark, **1037**¹ people with MS participated in the IMSS survey from May 5 to August 31, 2023.

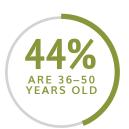
A Life Changed by MS

Alma had always been full of energy — a nurse and a passionate traveller in her free time. But at 30, her life took an unexpected turn. She started having challenges with her balance, followed by bouts of overwhelming fatigue. Over time, these symptoms grew harder to ignore. Tasks she once did effortlessly became a struggle. Her doctor ran tests, but the results were inconclusive. For four long years, Alma lived with uncertainty, her daily life becoming a patchwork of pain, confusion, and questions without answers.



Participant demographics

44.8
THE MEAN AGE OF PEOPLE WITH MS











People between **18–35** reported the most anxiety, depression/mood changes and speech difficulties.

Individuals aged **36–50** experienced the least mobility impairment.

Between **51-65**, reported low anxiety and the lowest depression/mood changes while all other symptoms starting to emerge, especially sleep disturbances, balance problems, muscle weakness, bladder and bowel control problems, mobility impairment and spasticity.

Over 65, reported the lowest fatigue and anxiety.

GENDER

Females 84%

Males 16%

Females reported fewer sexual problems and tremors but more pain, dizziness and hearing problems compared to males.

Males reported significantly fewer pain, dizziness and hearing problems, but more sexual dysfunction than females. WORKING STATUS

Part-time workers 32%
Full-time 310/

Not working due to MS 31%

Not working, not due to MS 10%

Student/ training 6%

Don't know 0.5%

Part-time workers reported more fatigue than other groups.

Full-time workers reported significantly fewer symptoms.

People not working due to MS reported the most presence of all symptoms.

People not working not due to MS reported the highest mobility impairment and trouble swallowing.

Understanding MS Across Europe

IMSS aims at uncovering the truths behind the symptoms, struggles, and stories of MS. How do people across Europe experience the condition? How do healthcare systems respond to their needs? And most importantly, where are they falling short?

For Alma, these questions resonate deeply. Her diagnosis eventually came at age 34, but the journey didn't end there. Her symptoms — fatigue, sensory problems, sleep disturbances, and balance problems — continued to affect her daily life. Navigating the healthcare system felt like an uphill battle, and she often wondered if there was more that could be done.

Alma's experience reflects a broader reality revealed through the IMSS survey. Thousands of respondents shared their stories, offering insight into the challenges of living with MS: delays in diagnosis, inconsistent care pathways, and limited support for symptom management. Despite these challenges, EMSP saw an opportunity to drive change. By amplifying these voices, EMSP could push for policies that prioritise comprehensive, equitable care for people like Alma across the continent.

Clinical situation

DIAGNOSIS AND SYMPTOM ONSET

diaanosed between 18-35 yrs

average disease duration

have at least 1 additional illnesses

Delay from symptom onset to diagnosis



symptom onset age

AVERAGE DELAY OF 4.2 YEARS

average diagnosis age

TYPES OF MS

76% RRMS, Relapsing Remitting MS

11%

PPMS, Primary Progressive MS

7% SPMS,

MS

Unsure Secondary of their MS type Progressive

6%

DISABILITY LEVELS

17% of the respondents had mild disability

while 48% had moderate disability and 12% had severe disability. People living with PPMS reported more moderate (44%) and severe disability (32%) compared to RRMS while people with SPMS reported the most moderate disability (50%) and severe disability $(42\%)^2$.

QUALITY OF LIFE

The majority of respondents had no or

slight problems, while 5.7% were experiencing moderate or severe problems affecting their quality of life. The quality of life deteriorated more among people with PPMS (11%) and people with SPMS (15%)3.

USE OF DMDs

76% of respondents have used **Disease Modifying**

Drugs (DMDs), with 57% currently using them. 72% reported less than a 1-year delay to start

DMDs, while 7% experienced delays of 6 years or more. Among non-users, the main reasons were:

- 18% concerns about use
- 53% never being offered

ON AVERAGE

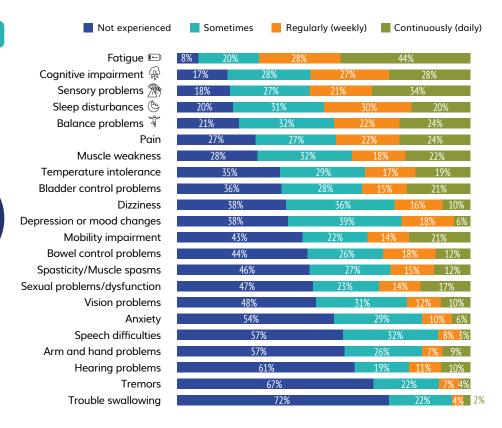
Symptoms

PRESENCE AND PREVALENCE

The symptoms reported the most were fatigue, cognitive impairment, sensory problems, sleep disturbances, and balance problems.

99%
EXPERIENCED
AT LEAST ONE
SYMPTOM

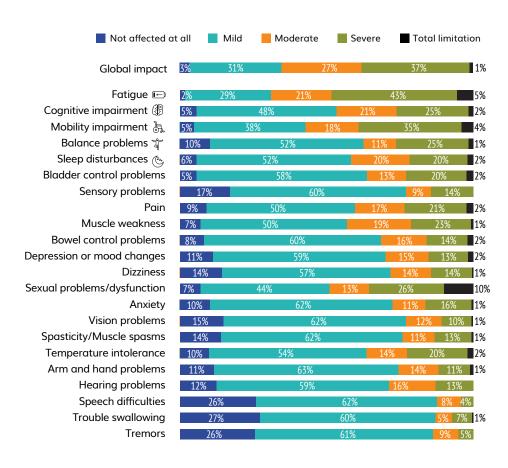
AVERAGE 13.2 SYMPTOMS EXPERIENCED TOGETHER



SEVERITY AND IMPACT

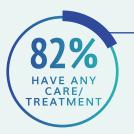
The symptoms that were affecting the daily lives of people with MS were fatigue, cognitive impairment, mobility impairment, bladder control problems, and sleep disturbances⁴.

The top 3 most debilitating symptoms were **fatigue**, **cognitive impairment**, and **mobility impairment**⁵.



Treatment and care

CARE FOR SYMPTOMS



18% don't use any care /treatment. The top reasons for not using a specific treatment were having no need, they cannot afford this treatment, or treatment was not offered to them.



People with MS reported using 5.7 treatments or care on average for their symptoms.

The most used treatments were*: physical therapy, prescription medication, physical activity, and personal life modifications.

Lifestyle changes



Medication for symptom management



Therapy/treatments



Social support



Complementary and alternative therapies



Other



Surgery 2%

INVOLVEMENT OF PROFESSIONALS

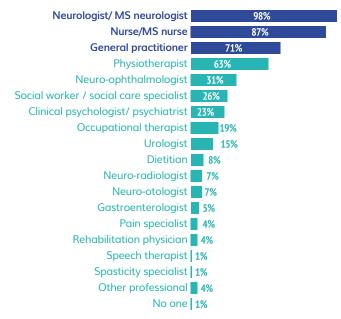
AVERAGE

4.8

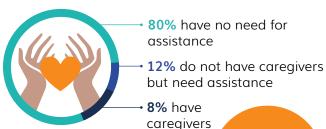
HEALTHCARE PROFESSIONALS

People with MS had 4.8 healthcare professionals on average taking care of their MS. 66% reported that their healthcare professionals are coordinating together.

The most involved professionals were **neurologist**, **nurse/MS nurse**, and **general practitioner***.



CAREGIVER PRESENCE AND ASSISTANCE



Of those caregivers, **53%** were a family member, partner, or friend. **49%** were paid professionals*.

1 in 2

ARE A FAMILY, PARTNER OR FRIEND

AVERAGE 22.8
HOURS/WEEK

The caregivers supported people with MS for 22.8 hours per week on average. **50%** of respondents mentioned that the carer was of **great or good** help to them.

People living with SPMS reported having a caregiver (19%) or needing one (13%), a similar need as people with PPMS (18%) while people with RRMS reported the most not having and not needing a caregiver (83%).

Satisfaction with management of symptoms

The most well managed symptoms were mobility impairment, bladder control problems, and speech difficulties.

The least well managed symptoms were cognitive impairment, heat and/ or cold sensitivity or intolerance, and sexual problems/dysfunction.



Not adequately managed at all	Not managed enough	Some man	ewhat aged	Well mana		Very well managed
Mobility impairment 🗦	12% 15%		33%		32%	9%
Bladder control problems 🦃	17%	19%	29%		23%	13%
Speech difficulties 💫	32%		17%	17%	25%	9%
Balance problems	19%	19%	28%	0	27%	6%
Arm and hand problems	25%	14%	275	%	22%	11%
Tremors	27%	16%	2.	5%	20%	12%
Muscle weakness	18%	13%	36%		26%	7%
Spasticity/Muscle spasms	19%	19%	31%		24%	8%
Trouble swallowing	33%		15%	21%	23%	8%
Depression or mood changes	27%	16%	Ž	16%	23%	8%
Anxiety	25%	18%	Ž	!7%	23%	8%
Bowel control problems	21%	19%	3	0%	21%	9%
Vision problems	31%	1	L8%	23%	20%	8%
Pain	19%	18%	3.	5%	21%	7%
Sensory problems	29%	15	%	30%	189	8%
Hearing problems	399	6	11%	26%	16%	9%
Sleep disturbances	25%	229	6	29%	17	% 6%
Fatigue	26%	219	%	30%	1	7% 5%
Dizziness	34%		21%	23%	1	7% 6%
Sexual problems/dysfunction 💠	4	F5%	18	%	19%	13% 6%
Temperature intolerance 🦠	40	%	17%	2	5%	12% 6%
Cognitive impairment 🐠	31%		23%	29	9%	12% 5%

The promise of change

As the IMSS initiative brings together people with MS, researchers, policymakers, and healthcare providers, we hope to have a future where no one has to face their symptoms alone. A future where MS care isn't just about managing symptoms but empowering people to lead fulfilling lives.

The story of MS isn't just about the condition; it's about the people living with it. And for Alma, it's a story that continues, now with **the promise of a brighter tomorrow.**



Note: Percentages are rounded for simplicity and may not sum to 100% or match exactly. *Participants were allowed to give more than one answer (multiple choice), hence the total can be more than 100%.

References: ¹Among respondents, 97% were MS society members, 1% were linked but not members, and 2% had no society affiliation. ²Measured by the PDDS: Patient-Determined Disease Steps, provided for use by the NARCOMS Registry: www.narcoms.org/pdds. NARCOMS is supported in part by the Consortium of Multiple Sclerosis Centres (CMSC) and the CMSC Foundation. ³Measured by EuroQOL Research Foundation: EQ-5D-5L. ⁴The tool used to measure the severity of symptoms is SymptoMScreen: https://www.symptomscreen.org, categorised into 5 groups: Not affected at all (0); Mild (1 and 2), Moderate (3), Severe (4 and 5), Total limitation (6). ⁵The 'Severity and Impact' chart is organized from the most to the least debilitating symptoms.

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