

Stages of MSA

Multiple system atrophy (MSA) has 4 stages, each with varying symptoms across patients.



0 ————— 3 ————— 6 ————— 9

PREMOTOR MSA

Symptom presented at onset may be motor or non-motor

Urinary dysfunction

- Retention or incontinence

Sleep Disturbances

- REM Behavior Disorder (RBD): Shouting or thrashing while asleep, acting out dreams, sleep walking
- Sleep apnea or snoring

Autonomic symptoms

- Neurogenic Orthostatic Hypotension (nOH): Lightheadedness, dizziness, or passing out when changing positions from lying to sitting or sitting to standing
- Reduced sweating
- Significant changes in blood pressure

Cold extremities, specifically hands and feet

POSSIBLE MSA

Stridor

- High-pitched sound while breathing

Parkinsonism symptoms

- Tremors and/or feeling slow and stiff when moving

Cerebellar symptoms

- Imbalance and feeling unsteady or clumsy

Subtle changes to voice and speech

- Sower and quieter and/or slurred

Difficulty writing

- Micrographia: small and spidery handwriting

PROBABLE MSA

Pyramidal signs

- Spasticity, weakness, slowing of rapid movements on one or both sides of the body

Recurrent falls:

- Need for walking devices

Coughing while eating and drinking

Need for indwelling or intermittent catheterization

Difficulty turning in bed

Unintelligible speech

- Need for communicative devices

STAGE AT WHICH DEATH CAN OCCUR

Reduced appetite and weight loss

Inability to verbally communicate

Shallow or bubbly breathing

Possibility of needing gastrostomy

Possibility of needing tracheostomy

Potential for aspiration Pneumonia

Potential for uroseptic fever

The premotor phase of MSA can last for months to years. Year 0 denotes the time of onset of motor symptoms. Patients may present with a combination of symptoms, but will likely not experience all of the symptoms listed above. A diagnosis of definite MSA is not possible until the postmortem examination is performed. However, research has allowed for advances in diagnostic assessments to aid in clinical diagnosis and enhance patient care.