MADISON NEUROLOGY · NEUROLOGY SYMPTOM GUIDE

Weakness of both legs

Structured history, interpretation & clinical review

Symptom 16 of 94
Clinical educational workbook
Version 1.0 · October 2026

Not for clinical use. This guide cannot diagnose, triage, or exclude an emergency. Seek emergency care for severe, sudden, or worsening symptoms.

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> **Document purpose**
> A structured educational history and diagnostic-reasoning workbook. Treatment is outside its scope.

Scope and safe use

Weakness of both legs, both arms, or all limbs requires rapid distinction among spinal cord, peripheral nerve, neuromuscular junction, muscle, metabolic, and systemic causes.

Not for clinical use.
This educational workbook does not diagnose, triage, estimate probability, replace examination, or exclude an emergency. If a safety-screen answer is Yes or uncertain, follow the stated action rather than continuing routine interpretation.

How to complete the workbook

- Record the current episode and the person’s usual baseline; use a witness account for events with impaired awareness.
- Check one option per question unless a clinician documents a different combination. “Not sure” is unresolved information, not a negative answer.
- Complete the safety screen before all other sections. Record exact onset or last-known-well time for sudden deficits.
- Use Section 2 only after the form is complete. More than one pattern may be relevant; urgency takes precedence.
- Use Section 3 to plan focused examination and clinician-selected investigations. No test is automatic or universally required.

Specific escalation rule

New severe headache, new focal weakness or numbness, new speech/language difficulty, reduced consciousness, a prolonged seizure, severe breathing or swallowing difficulty, sudden visual loss, or rapidly progressive weakness requires emergency assessment. Call 911 in the United States.

Section 1: Input form

Checkbox history for Weakness of both legs

1A. Immediate safety screen

Is there new face droop, one-sided weakness or numbness, difficulty speaking or understanding, double vision, or severe loss of coordination?

☐ No ☐ Yes ☐ Not sure

If Yes: Call emergency services now and record the exact time the person was last known well.

Is there new confusion, reduced consciousness, a seizure, or difficulty awakening?

☐ No ☐ Yes ☐ Not sure

If Yes: Call emergency services now. Do not leave the person alone or give food, drink, or medication by mouth.

Is there new severe breathlessness, inability to swallow saliva, blue lips, or rapidly worsening weakness?

☐ No ☐ Yes ☐ Not sure

If Yes: Call emergency services now; breathing and swallowing problems can become critical quickly.

Is there sudden loss of vision, a new missing visual field, or a painful red eye?

☐ No ☐ Yes ☐ Not sure

If Yes: Seek emergency eye or emergency-department assessment now.

> **Stop rule:** Any Yes answer triggers the action printed under that question. Any Not sure answer requires prompt in-person clarification; do not treat it as No.

1B. Timeline

How did the symptom begin?

☐ Suddenly, over seconds or minutes ☐ Over hours to days ☐ Gradually over weeks or months ☐ Longstanding or since childhood ☐ Not sure

Use the first occurrence for recurrent episodes; use the current episode for a changing symptom.

What is the overall course?

☐ One persistent episode ☐ Separate recurrent episodes ☐ Steadily worsening ☐ Fluctuating or variable ☐ Currently resolved

Has this exact pattern been assessed before?

☐ Definitely new ☐ The same pattern occurred before ☐ Present and stable for a long time ☐ Not sure

1C. Discriminating features

How quickly is the weakness progressing?

☐ Hours to days ☐ Days to four weeks ☐ Months or longer ☐ Not progressing

Is there a sensory level, band-like trunk sensation, or saddle numbness?

☐ A trunk level or band ☐ Saddle/perineal numbness ☐ Only feet or hands, without a trunk level ☐ No sensory change

Are there stiffness, spasms, or very brisk reflex-like responses?

☐ Yes or previously documented ☐ No; limbs are floppy or reflexes reduced ☐ Not assessed

Is there breathlessness, weak cough, swallowing difficulty, or neck weakness?

☐ Yes ☐ No ☐ Not sure

1D. Associated findings

Are there other neurological symptoms—weakness, numbness, speech change, double vision, swallowing difficulty, or severe imbalance?

☐ Yes ☐ No ☐ Not sure

Are there systemic clues—fever, weight loss, cancer, infection risk, pregnancy/postpartum status, or a new medication?

☐ Yes ☐ No ☐ Not sure

How much does this affect daily activity?

☐ Noticeable but activities continue ☐ Some activities are limited ☐ Cannot perform usual activities ☐ Not sure

1E. Clinical context

Who is being assessed?

☐ Adult or adolescent ☐ Child under 12 ☐ Adult aged 65 or older

Could a medicine, substance, withdrawal, or recent dose change be relevant?

☐ No plausible contributor ☐ Yes or possibly ☐ Not reviewed

Include sedatives, dopamine-blocking drugs, stimulants, decongestants, anticholinergics, alcohol, and non-prescribed substances when relevant.

Is there a relevant neurological, muscular, metabolic, cardiovascular, autoimmune, or sleep disorder?

☐ No known relevant condition ☐ Yes ☐ Not sure

What prior information is available?

☐ A previous examination or investigation ☐ Prior records but no clear explanation ☐ No useful prior assessment ☐ Not sure

Additional history and documentation

Record exact dates/times, witness details, relevant medication doses and changes, prior investigation reports, and the person’s baseline function.

Section 2: Interpreting the input form

Answer combinations generate a differential and an assessment pathway—not a diagnosis.

> **Precedence:** Emergency safety answers override every pattern below. Otherwise, the highest-urgency fully matched pattern takes precedence. If entries are incomplete, contradictory, or match no pattern, use the unresolved-information pathway.

Pattern 1: Possible spinal-cord level

Is there a sensory level, band-like trunk sensation, or saddle numbness? A trunk level or band / Saddle/perineal numbness

Emergency warning pattern — Now

A trunk sensory level or saddle symptoms with bilateral weakness is an emergency spinal pathway.

Differential to review:

- Spinal-cord compression or myelopathy

Action: Call 911 or go to the nearest emergency department now. Do not drive yourself.

Pattern 2: Rapidly progressive symmetric weakness

How quickly is the weakness progressing? Hours to days / Days to four weeks
Are there stiffness, spasms, or very brisk reflex-like responses? No; limbs are floppy or reflexes reduced

Emergency warning pattern — Now

Rapidly progressive weakness with reduced reflex tone requires immediate neuromuscular and respiratory assessment.

Differential to review:

- Acute inflammatory or infectious neuropathy
- Metabolic, toxic, nutritional, or systemic cause

Action: Call 911 or go to the nearest emergency department now. Do not drive yourself.

Pattern 3: Breathing or swallowing involvement

Is there breathlessness, weak cough, swallowing difficulty, or neck weakness? Yes

Emergency warning pattern — Now

Bulbar or respiratory symptoms with limb weakness require emergency assessment.

Differential to review:

- Acute inflammatory or infectious neuropathy
- Motor neuron, junction, or myopathic disorder

Action: Call 911 or go to the nearest emergency department now. Do not drive yourself.

Pattern 4: Chronic progressive bilateral weakness

How quickly is the weakness progressing? Months or longer
What is the overall course? Steadily worsening

Urgent assessment pattern — Same day

Chronic progression requires prompt anatomical localization rather than empiric symptom labeling.

Differential to review:

- Spinal-cord compression or myelopathy
- Motor neuron, junction, or myopathic disorder

Action: Arrange same-day medical assessment. If symptoms are rapidly worsening or severe, call 911.

Unresolved-information pathway: The entries need structured in-person characterization.

Urgent assessment pattern — Same day

Do not guess missing answers or convert uncertainty into reassurance. Document what is unknown, perform an in-person examination, clarify the timeline with a witness or records when available, and reassess if any new feature appears.

Action: Arrange same-day medical assessment. If symptoms are rapidly worsening or severe, call 911.

Section 3: Clinical review

Diagnostic modules and focused investigation logic

The examination comes before a test list. Select investigations only after localization, urgency, comorbidity, pregnancy status, renal function, anticoagulation, and prior results have been considered.

3.1 Spinal-cord compression or myelopathy

Discriminating features: A sensory level, sphincter change, spasticity, or a cervical/thoracic pattern localizes to the cord.

Logical investigations: Urgent spinal MRI and cord-focused examination when acute or progressive; bladder scanning does not replace neurological assessment.

3.2 Acute inflammatory or infectious neuropathy

Discriminating features: Rapidly progressive symmetric weakness with reduced reflexes, sensory symptoms, or autonomic involvement.

Logical investigations: Immediate neurological and respiratory assessment; clinician-directed electrodiagnostics, CSF analysis, and monitoring as indicated.

3.3 Motor neuron, junction, or myopathic disorder

Discriminating features: Subacute/chronic weakness without a sensory level; bulbar, ocular, atrophy, fasciculation, or proximal patterns aid separation.

Logical investigations: Neuromuscular examination, CK/metabolic tests, electrodiagnostics, and specialist-directed antibody or genetic testing.

3.4 Metabolic, toxic, nutritional, or systemic cause

Discriminating features: Electrolyte, endocrine, vitamin, drug, toxin, or systemic illness can produce generalized or periodic weakness.

Logical investigations: Targeted electrolytes, renal/thyroid, glucose, nutritional and medication review guided by tempo and examination.

Reassessment and documentation

- If the symptom pattern changes, repeat the safety screen and timeline rather than carrying forward an earlier interpretation.
- If a test is unrevealing but the deficit persists or progresses, revisit localization and seek specialist review; a normal result does not automatically end assessment.
- If symptoms resolve, document duration, completeness of recovery, recurrence, and any residual deficit. Resolved sudden focal symptoms can still require urgent vascular assessment.
- If the history and examination conflict, obtain collateral information and in-person review rather than forcing a single diagnostic label.

Selected references

Sources provide background standards and do not replace local emergency pathways or current specialist guidance. Accessed October 2026.

1. National Institute for Health and Care Excellence. (2019, updated 2023). *Suspected neurological conditions: recognition and referral (NG127)*. https://www.nice.org.uk/guidance/ng127