MADISON NEUROLOGY · NEUROLOGY SYMPTOM GUIDE

Weakness of one leg

Structured history, interpretation & clinical review

Symptom 14 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

Focal weakness is localized by onset, face/arm/leg pattern, sensation, reflexes, root or nerve distribution, and associated spinal or cranial findings.

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 one leg

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

Which pattern best describes the weakness?

☐ Face, arm, and/or leg on one side ☐ One arm or part of an arm ☐ One hand or fine finger movements ☐ One leg, ankle, or foot

Is there accompanying numbness or altered sensation?

☐ Yes, on the same side of the body ☐ Yes, in a specific finger, nerve, or root area ☐ No sensory symptom ☐ Not sure

Which associated motor feature is present?

☐ Loss of coordination or fine control ☐ Foot drop, tripping, or frequent object dropping ☐ Marked stiffness, floppiness, or spasms ☐ None of these

Is there a clear compression, injury, or postural trigger?

☐ After pressure on elbow, wrist, or outer knee ☐ After neck/back or limb injury ☐ Only after a particular posture ☐ No clear trigger

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: Sudden focal motor deficit

How did the symptom begin? Suddenly, over seconds or minutes

Emergency warning pattern — Now

Sudden focal weakness—even restricted to a hand or foot—requires emergency stroke assessment.

Differential to review:

- Stroke, TIA, or another focal cerebral process

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

Contingency: Call emergency services rather than driving; record the exact last-known-well time.

Pattern 2: Root or focal nerve pattern

Which pattern best describes the weakness? One arm or part of an arm / One hand or fine finger movements / One leg, ankle, or foot
Is there accompanying numbness or altered sensation? Yes, in a specific finger, nerve, or root area

Prompt clinical review pattern — Promptly

Weakness paired with a specific nerve/root sensory distribution directs localization below the brain.

Differential to review:

- Cervical or lumbar radiculopathy
- Focal peripheral neuropathy or plexopathy

Action: Arrange an in-person medical or neurological review promptly, usually within days. Seek sooner care if the pattern changes.

Pattern 3: Compression-associated focal weakness

Is there a clear compression, injury, or postural trigger? After pressure on elbow, wrist, or outer knee / Only after a particular posture
How did the symptom begin? Over hours to days / Gradually over weeks or months

Prompt clinical review pattern — Promptly

A close temporal relation to compression supports focal neuropathy, but persistent deficit needs objective assessment.

Differential to review:

- Focal peripheral neuropathy or plexopathy

Action: Arrange an in-person medical or neurological review promptly, usually within days. Seek sooner care if the pattern changes.

Pattern 4: Progressive painless focal weakness

What is the overall course? Steadily worsening
Is there accompanying numbness or altered sensation? No sensory symptom

Urgent assessment pattern — Same day

Progressive weakness without sensory symptoms needs prompt neuromuscular and structural evaluation.

Differential to review:

- Motor neuron, neuromuscular junction, muscle, or functional weakness
- Focal peripheral neuropathy or plexopathy

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 Stroke, TIA, or another focal cerebral process

Discriminating features: Sudden face/arm/leg weakness, cortical sensory or visual signs, speech/language involvement, or rapidly progressive focal deficit.

Logical investigations: Emergency stroke pathway for sudden onset; brain and vascular imaging are selected by the clinical team.

3.2 Cervical or lumbar radiculopathy

Discriminating features: Root-distribution weakness with radiating pain, sensory symptoms, or reflex loss; neck/back symptoms may be absent.

Logical investigations: Myotome/reflex/sensory examination; spinal MRI and/or electrodiagnostic testing when indicated.

3.3 Focal peripheral neuropathy or plexopathy

Discriminating features: Weakness mapped to ulnar, median, radial, peroneal, or another nerve, or a broader plexus pattern after injury/compression.

Logical investigations: Detailed nerve/plexus examination; electrodiagnostic testing and targeted ultrasound or MRI according to site and course.

3.4 Motor neuron, neuromuscular junction, muscle, or functional weakness

Discriminating features: Progressive painless weakness, fatigability, atrophy/fasciculations, or internally inconsistent examination findings suggest alternative mechanisms.

Logical investigations: Neurological examination, CK and metabolic testing when indicated, electrodiagnostics, and specialist assessment; functional signs require positive examination criteria.

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