MADISON NEUROLOGY · NEUROLOGY SYMPTOM GUIDE

Muscle cramps

Structured history, interpretation & clinical review

Symptom 70 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

Cramps and visible twitching are assessed by distribution, persistence, weakness, atrophy, exercise/electrolyte/medication clues, and sensory or systemic features.

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 Muscle cramps

1A. Immediate safety screen

Is the person acutely confused, struggling to breathe, having a seizure, or difficult to awaken?

☐ No ☐ Yes ☐ Not sure

If Yes: Call emergency services now.

Is there new one-sided weakness, facial droop, severe imbalance, or speech/language difficulty?

☐ No ☐ Yes ☐ Not sure

If Yes: Call emergency services now and record the onset time.

Is there sudden visual loss or a new painful red eye?

☐ No ☐ Yes ☐ Not sure

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

Is there fever with rapidly worsening illness, a new rash, severe dehydration, or an inability to keep fluids down?

☐ No ☐ Yes ☐ Not sure

If Yes: Arrange same-day or emergency assessment depending on severity and current consciousness.

> **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

What is observed?

☐ Painful sustained muscle tightening ☐ Visible painless fine twitching ☐ Both cramps and twitching ☐ Another repetitive movement

Where does it occur?

☐ One muscle or small region ☐ Widespread in several regions ☐ Spreading to new regions ☐ Variable and attention-linked

Is there objective weakness, muscle wasting, swallowing difficulty, or breathlessness?

☐ Yes ☐ No ☐ Not sure

Is there heavy exertion, dehydration, kidney/electrolyte risk, or a relevant medicine?

☐ 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: Twitching with objective motor deficits

Is there objective weakness, muscle wasting, swallowing difficulty, or breathlessness? Yes
What is observed? Visible painless fine twitching / Both cramps and twitching

Urgent assessment pattern — Same day

Twitching with weakness, atrophy, bulbar, or respiratory symptoms needs prompt motor-unit assessment.

Differential to review:

- Motor neuron or progressive motor-unit disorder

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

Pattern 2: Progressive or widespread motor activity

Where does it occur? Widespread in several regions / Spreading to new regions
Is there objective weakness, muscle wasting, swallowing difficulty, or breathlessness? No

Prompt clinical review pattern — Promptly

Persistent spreading twitching/cramps require neuromuscular examination even without reported weakness.

Differential to review:

- Peripheral nerve hyperexcitability, radiculopathy, or neuropathy
- Motor neuron or progressive motor-unit disorder

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

Pattern 3: Exertion or metabolic-risk cramp pattern

Is there heavy exertion, dehydration, kidney/electrolyte risk, or a relevant medicine? Yes
What is observed? Painful sustained muscle tightening

Prompt clinical review pattern — Promptly

Exertion, dehydration, renal/electrolyte, or drug clues direct initial cramp assessment.

Differential to review:

- Benign cramp/fasciculation, exertion, or medication/metabolic contributor
- Myopathy, electrolyte disorder, or systemic muscle injury

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

Pattern 4: Localized benign-activity pattern

Where does it occur? One muscle or small region
Is there objective weakness, muscle wasting, swallowing difficulty, or breathlessness? No
Is there heavy exertion, dehydration, kidney/electrolyte risk, or a relevant medicine? No

Structured clinical review pattern — Routine review

Localized twitching/cramping without reported deficits may fit a benign pattern but needs review if persistent or progressive.

Differential to review:

- Benign cramp/fasciculation, exertion, or medication/metabolic contributor

Action: Arrange a routine in-person clinical review. New, severe, or worsening symptoms change this pathway.

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

Prompt clinical review pattern — Promptly

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

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 Benign cramp/fasciculation, exertion, or medication/metabolic contributor

Discriminating features: Localized or intermittent activity without objective weakness/atrophy, often exertion, sleep, caffeine, or drug linked.

Logical investigations: Neurological examination, hydration/medication review and targeted electrolytes/renal/thyroid testing when indicated.

3.2 Motor neuron or progressive motor-unit disorder

Discriminating features: Persistent/spreading twitching with atrophy, weakness, bulbar symptoms, or reflex changes.

Logical investigations: Prompt neuromuscular examination and electrodiagnostics; urgent respiratory/bulbar evaluation if those symptoms occur.

3.3 Peripheral nerve hyperexcitability, radiculopathy, or neuropathy

Discriminating features: Persistent regional twitching, cramps, sensory symptoms, stiffness, or root distribution.

Logical investigations: Nerve/root examination and electrodiagnostics; selected immune/metabolic testing as indicated.

3.4 Myopathy, electrolyte disorder, or systemic muscle injury

Discriminating features: Weakness, myalgia, dark urine, renal/electrolyte clues, or medication exposure.

Logical investigations: CK, renal/electrolyte and medication assessment; severe pain, dark urine, or rapidly progressive weakness is urgent.

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