MADISON NEUROLOGY · NEUROLOGY SYMPTOM GUIDE

A convulsion, seizure, or witnessed shaking episode

Structured history, interpretation & clinical review

Symptom 62 of 94
Clinical educational workbook
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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

A witnessed shaking episode or convulsion needs event timing, pre/post-ictal features, respiration, injury, triggers, syncope mimics, and first-versus-established seizure status.

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 A convulsion, seizure, or witnessed shaking episode

1A. Immediate safety screen

Has shaking lasted five minutes or longer, have episodes repeated without recovery, or is the person still unresponsive?

☐ No ☐ Yes ☐ Not sure

If Yes: Call emergency services now. Time the episode and do not put anything in the person's mouth.

Did serious injury, breathing difficulty, blue lips, or pregnancy occur with the episode?

☐ No ☐ Yes ☐ Not sure

If Yes: Call emergency services now and follow dispatcher instructions.

Is there persistent new weakness, severe headache, confusion, double vision, or difficulty speaking after the episode?

☐ No ☐ Yes ☐ Not sure

If Yes: Seek emergency assessment now, even if the shaking or spell has stopped.

Was this the first convulsion, or did it occur in water, with diabetes, or with a known serious medical condition?

☐ No ☐ Yes ☐ Not sure

If Yes: Arrange emergency or same-day medical assessment; do not drive or swim alone.

> **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 happened immediately before the shaking?

☐ A stereotyped smell, feeling, focal symptom, or warning ☐ Light-headedness then collapse ☐ No warning ☐ Not sure

Which movement pattern was seen?

☐ Sustained rhythmic generalized jerking ☐ One-sided or focal jerking ☐ A few irregular jerks after collapse ☐ Prolonged variable side-to-side movements

What happened afterward?

☐ Confusion, sleepiness, headache, or focal weakness ☐ Rapid return to normal ☐ No change in awareness ☐ Not sure

Was there sleep deprivation, fever, alcohol withdrawal, medication/substance change, diabetes, or known epilepsy?

☐ Yes ☐ No known factor ☐ 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: Convulsive seizure pattern

Which movement pattern was seen? Sustained rhythmic generalized jerking / One-sided or focal jerking
What happened afterward? Confusion, sleepiness, headache, or focal weakness

Urgent assessment pattern — Same day

Sustained rhythmic/focal shaking with postictal symptoms requires prompt seizure assessment.

Differential to review:

- Generalized or focal-to-bilateral tonic-clonic seizure
- Provoked seizure from metabolic, toxic, infectious, or structural cause

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

Contingency: A convulsion lasting five minutes, repeated seizures without recovery, breathing difficulty, or serious injury requires emergency services now.

Pattern 2: Syncope-with-jerks pattern

What happened immediately before the shaking? Light-headedness then collapse
Which movement pattern was seen? A few irregular jerks after collapse
What happened afterward? Rapid return to normal

Prompt clinical review pattern — Promptly

Collapse with brief jerks and rapid recovery may be convulsive syncope and needs cardiovascular assessment.

Differential to review:

- Syncope with convulsive movements

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

Pattern 3: Provoked-event context

Was there sleep deprivation, fever, alcohol withdrawal, medication/substance change, diabetes, or known epilepsy? Yes
Which movement pattern was seen? Sustained rhythmic generalized jerking / One-sided or focal jerking

Urgent assessment pattern — Same day

A metabolic, infectious, withdrawal, or injury clue requires evaluation of a provoked seizure and its cause.

Differential to review:

- Provoked seizure from metabolic, toxic, infectious, or structural cause

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

Pattern 4: Variable recurrent event pattern

Which movement pattern was seen? Prolonged variable side-to-side movements
What happened afterward? No change in awareness

Prompt clinical review pattern — Promptly

Variable recurrent events need witnessed/video and specialist characterization rather than an automatic epilepsy label.

Differential to review:

- Functional/dissociative seizure-like event or movement mimic
- Generalized or focal-to-bilateral tonic-clonic seizure

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

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 Generalized or focal-to-bilateral tonic-clonic seizure

Discriminating features: Aura, sustained rhythmic activity, impaired awareness, postictal confusion, or lateral tongue bite supports seizure.

Logical investigations: First-event neurological assessment with glucose/electrolytes and clinician-directed EEG/MRI; recurrent known events require individualized action planning.

3.2 Syncope with convulsive movements

Discriminating features: Presyncopal prodrome/collapse with brief secondary jerks and rapid recovery.

Logical investigations: Cardiovascular/syncope assessment and ECG; jerks alone do not establish epilepsy.

3.3 Provoked seizure from metabolic, toxic, infectious, or structural cause

Discriminating features: Fever, withdrawal, glucose/electrolyte disturbance, head injury, or acute neurological signs.

Logical investigations: Urgent medical/neurological evaluation with targeted laboratory, imaging, toxicology or infection testing.

3.4 Functional/dissociative seizure-like event or movement mimic

Discriminating features: Variable prolonged events with specific examination/event features; diagnosis requires careful positive assessment, not assumption.

Logical investigations: Neurological event review and video-EEG when indicated; continue to assess injuries and coexisting epilepsy.

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. (2022, updated 2025). *Epilepsies in children, young people and adults (NG217)*. https://www.nice.org.uk/guidance/ng217
2. National Institute for Health and Care Excellence. (2010, updated 2023). *Transient loss of consciousness (“blackouts”) in over 16s (CG109)*. https://www.nice.org.uk/guidance/cg109