MADISON NEUROLOGY · NEUROLOGY SYMPTOM GUIDE

Flashing lights, zigzag lines, shimmering spots, or other visual aura

Structured history, interpretation & clinical review

Symptom 46 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

Flashing, zigzag, or shimmering phenomena are characterized by development over time, one/both eyes, positive versus negative features, duration, headache, and stereotypy.

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 Flashing lights, zigzag lines, shimmering spots, or other visual aura

1A. Immediate safety screen

Is there sudden visual loss, a curtain or missing field, or a new large shower of floaters or flashes?

☐ No ☐ Yes ☐ Not sure

If Yes: Contact an emergency eye service or emergency department now.

Is there a painful red eye, halos, vomiting, marked light sensitivity, or pain with eye movement?

☐ No ☐ Yes ☐ Not sure

If Yes: Seek same-day emergency eye assessment; sudden visual loss requires emergency care now.

Is there new double vision with weakness, severe headache, confusion, imbalance, or difficulty speaking?

☐ No ☐ Yes ☐ Not sure

If Yes: Call emergency services now and record onset or last-known-well time.

Is there eye protrusion, fever, eyelid swelling, new inability to move the eye, or recent eye trauma?

☐ No ☐ Yes ☐ Not sure

If Yes: Seek emergency eye/orbital 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 do the images develop?

☐ Gradually expand or move over 5–30 minutes ☐ All at once ☐ Seconds only ☐ Persistent for days or longer

Where are they seen?

☐ Same area with either eye covered ☐ Only in one eye ☐ Not tested

What follows or accompanies the visual episode?

☐ Headache, nausea, or light/sound sensitivity ☐ Weakness, language difficulty, or confusion ☐ No associated symptom

Is this a long-established stereotyped pattern or a new/changed episode?

☐ Same pattern for years ☐ First or clearly changed ☐ Recently much more frequent

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: Typical gradual binocular aura pattern

How do the images develop? Gradually expand or move over 5–30 minutes
Where are they seen? Same area with either eye covered
Is this a long-established stereotyped pattern or a new/changed episode? Same pattern for years

Structured clinical review pattern — Routine review

A longstanding, gradually developing binocular pattern is compatible with migraine aura if no warning features are present.

Differential to review:

- Migraine visual aura

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

Pattern 2: Monocular flash or retinal-warning pattern

Where are they seen? Only in one eye
How do the images develop? All at once / Persistent for days or longer

Urgent assessment pattern — Same day

New monocular flashes require prompt retinal assessment, not an automatic migraine label.

Differential to review:

- Retinal traction, detachment, or ocular inflammatory process

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

Pattern 3: Very brief stereotyped visual episodes

How do the images develop? Seconds only
Is this a long-established stereotyped pattern or a new/changed episode? First or clearly changed / Recently much more frequent

Urgent assessment pattern — Same day

New very brief stereotyped episodes need neurological separation from seizure or vascular events.

Differential to review:

- Occipital seizure or cerebral ischemia

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

Pattern 4: Aura-like episode with focal neurological symptoms

What follows or accompanies the visual episode? Weakness, language difficulty, or confusion

Emergency warning pattern — Now

New weakness, language difficulty, or confusion with visual symptoms requires emergency stroke assessment.

Differential to review:

- Occipital seizure or cerebral ischemia

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

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 Migraine visual aura

Discriminating features: Binocular positive phenomena gradually developing over minutes, often followed by migraine symptoms; may occur without headache.

Logical investigations: Clinical phenotype and eye/neurological examination; atypical, monocular, very brief, or persistent symptoms need further assessment.

3.2 Retinal traction, detachment, or ocular inflammatory process

Discriminating features: Monocular flashes, floaters, curtain, or persistent ocular symptoms.

Logical investigations: Urgent dilated retinal examination, especially with new floaters or a field defect.

3.3 Occipital seizure or cerebral ischemia

Discriminating features: Very brief stereotyped episodes or sudden negative field loss with neurological features.

Logical investigations: Neurological assessment; EEG and brain/vascular imaging when supported by the phenotype.

3.4 Persistent visual disturbance, medication, or visual-snow-type phenomena

Discriminating features: Continuous static, shimmering, afterimages, or medication-linked visual phenomena require a separate assessment.

Logical investigations: Eye examination, medication/substance review, neurological phenotype assessment, and targeted testing for atypical signs.

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

2. American Academy of Ophthalmology. (2020). *Preferred Practice Pattern: Comprehensive Adult Medical Eye Evaluation*. https://www.aao.org/preferred-practice-pattern/comprehensive-adult-medical-eye-evaluation-ppp