Syncope

Transient loss of consciousness · Reflex, orthostatic, or cardiac?

HISTORY + EXAM + ECG
the whole foundation

THREE BUCKETS *sorting into one of these drives every subsequent decision*

REFLEX (VASOVAGAL) — commonest, benign

Prodrome: warmth, nausea, diaphoresis, tunnel vision. Provoked by standing, pain, emotion, micturition, cough. Rapid full recovery. **Long-term outcomes match matched controls without syncope.**

ORTHOSTATIC

On standing, within 3 minutes. **Drop of ≥ 20 mmHg systolic or ≥ 10 mmHg diastolic.** Causes: volume depletion, **drugs** (antihypertensives, alpha-blockers, diuretics, nitrates), autonomic failure (diabetes, Parkinson disease).

CARDIAC — the one that kills

Arrhythmic (brady, VT, SVT) or **structural/obstructive** (severe AS, HCM, PE, tamponade, dissection, pulmonary hypertension). Little or no prodrome. Highest mortality — find these.

INITIAL EVALUATION *history, physical exam, and a 12-lead ECG guide everything after*

1. **Was it truly syncope?** Transient loss of consciousness with **global cerebral hypoperfusion**, rapid onset, short duration, spontaneous complete recovery. Distinguish from **seizure** (postictal confusion, tongue biting, prolonged), hypoglycemia, and psychogenic pseudosyncope.
2. **Get the story from a witness.** Position, trigger, prodrome, duration, color, movements, and how fast they came round. This is worth more than any test.
3. **Orthostatic vitals** and a full cardiac exam — murmur, carotid upstroke, signs of heart failure.
4. **12-lead ECG in everyone.** Look for conduction disease, ischemia, LVH, delta wave, **long or short QT**, Brugada pattern, epsilon waves, and pathological Q waves.
5. **Targeted labs only.** Routine broad panels and head CT have low yield. Image the head only with focal deficit or head trauma.

RED FLAGS FOR CARDIAC SYNCOPE *any of these changes the disposition*

THE EVENT

Syncope during exertion or while **supine** · **no prodrome** at all · preceded by palpitations · injury from the fall · recurrent unexplained episodes.

THE PATIENT

Known structural heart disease or reduced EF · older age · **family history of sudden death < 50** or inherited channelopathy · abnormal ECG · heart failure or a significant murmur.

DISPOSITION *driven by serious conditions, not by a single risk factor*

Decision	Basis
Admit	Presence of **≥ 1 serious medical condition** identified in the ED is the key determinant of in-hospital management, rather than any individual risk factor in isolation. This includes arrhythmia, ischemia, severe AS, PE, dissection, GI bleeding, and significant volume loss.
Discharge	**Presumptive vasovagal syncope** should be discharged from the ED. Reassurance and counseling, not admission.
Structured outpatient	Suspected cardiac syncope is **seldom admitted purely for diagnostics** in the outpatient world, and it is reasonable to extend that approach from the ED once initial evaluation is complete — provided reliable follow-up and monitoring are arranged.

TARGETED TESTING & TREATMENT *choose the test the history points to*

TESTS

Echo if structural disease is suspected. **Ambulatory monitoring matched to frequency**: Holter for daily symptoms, patch or external monitor for weekly, **implantable loop recorder for infrequent unexplained** episodes. Exercise testing for exertional syncope. Tilt table for suspected reflex when the diagnosis is unclear.

TREATMENT

Reflex: education, avoid triggers, **fluid and salt**, **counter-pressure maneuvers**, consider midodrine or fludrocortisone if recurrent. **Orthostatic: stop the offending drug first**, compression stockings, slow position change. **Cardiac:** treat the cause — pacemaker, ICD, ablation, or valve intervention.

IS IT ACTUALLY SYNCOPE *the three mimics that get mislabelled*

Condition	Discriminating features	Why it matters
Seizure	**Postictal confusion** lasting minutes, lateral tongue biting, incontinence, prolonged event, head turning, cyanosis. Brief myoclonic jerks alone favor syncope.	Completely different workup and driving restrictions. **Postictal confusion is the single best discriminator.**
Psychogenic pseudosyncope	Frequent events, **prolonged apparent unconsciousness** with normal vitals and normal color, eyes closed, resistance to eye opening.	Avoids an endless negative cardiac workup. Needs psychiatric input, not a loop recorder.
Metabolic / hypoglycemia	Gradual onset, no rapid spontaneous recovery, sweating and confusion that persists until treated.	By definition not syncope, since recovery is not spontaneous. **Check a glucose in everyone.**

BEFORE THEY LEAVE *the counseling that prevents the next event*

COUNSEL EVERY PATIENT

Teach **recognition of the prodrome** and to **lie down immediately** rather than fight it. **Counter-pressure maneuvers**: leg crossing with tensing, handgrip, arm tensing. Increase fluid and salt unless contraindicated. Rise slowly. Avoid prolonged standing, heat, and alcohol.

DRIVING & OCCUPATION

Ask about driving and the patient's job — and document the advice. Restrictions vary by jurisdiction and by cause, and are longer for untreated cardiac syncope than for a single vasovagal faint. Occupational risk matters for drivers, pilots, and those working at height or with machinery.

PEARLS & PITFALLS

- **Exertional syncope is an emergency workup**, not reassurance — severe AS, HCM, anomalous coronary, or exercise-induced arrhythmia.
- **Syncope with no prodrome, or while supine**, is arrhythmic until proven otherwise. A prodrome is protective information.
- Brief myoclonic jerks are common in vasovagal syncope and do **not** make it a seizure. Postictal confusion is the discriminator.
- **Review the medication list before anything else** in the older patient. Polypharmacy is the commonest reversible cause.
- **Head CT and routine bloodwork are low yield.** The ECG and the history are where the answer is.
- Ask about **family sudden death under 50** — it reframes an otherwise benign-sounding faint.

References: 2017 ACC/AHA/HRS Guideline for the Evaluation and Management of Patients With Syncope (Circulation / JACC, 2017) · ESC 2018 Syncope Guidelines.