

CLINICALJUDGE™ • MASTER STUDY GUIDE

TACHYCARDIA ARRHYTHMIAS

Every fast rhythm — sinus, atrial, junctional, and the lethal ventricular rhythms plus asystole & PEA — with EKG recognition, treatment, the stable-vs-unstable priority, and which are **shockable vs unshockable**. Includes must-know cardioversion, defibrillation, and CPR.

NGN NCLEX-RN 2026

CARDIAC • DYSRHYTHMIAS

PHYSIOLOGICAL ADAPTATION

ACLS TACHYCARDIA & ARREST

SHOCKABLE VS UNSHOCKABLE

Shockable / Critical Cardiovert if unstable Not shockable (CPR+Epi) Pathophysiology Stable Education

NARROW VS WIDE — HOW TO READ A FAST RHYTHM

STEP 1 • RATE

>100 bpm = tachycardia. How fast points you toward the source.



STEP 2 • QRS WIDTH

NARROW

= supraventricular (atrial/junctional).

WIDE

= ventricular until proven otherwise.



STEP 3 • REGULARITY

Irregularly irregular & no P → AFib. Sawtooth → flutter.



STEP 4 • PULSE?

For wide/ventricular rhythms, a **PULSE CHECK** decides cardiovert vs defibrillate vs CPR.

THE TWO QUESTIONS THAT DRIVE EVERY ANSWER: (1) Is the patient *stable or unstable*? and (2) Is there a *pulse*? Stable → meds/vagal & treat cause. Unstable **WITH** a pulse → **SYNCHRONIZED CARDIOVERSION**. **NO** pulse + shockable (VF / pulseless VT) → **DEFIBRILLATE**. No pulse + asystole/PEA → **CPR + EPINEPHRINE**, never shock.

SHOCKABLE VS UNSHOCKABLE RHYTHMS

⚡ SHOCKABLE — DEFIBRILLATE

Pulseless, disorganized ventricular rhythms. Electricity can reset them.

- ⚡ **Ventricular Fibrillation (VF)** — defibrillate immediately
- ⚡ **Pulseless Ventricular Tachycardia** — defibrillate
- ⚡ **Ventricular Flutter** — manage like VF
- ⚡ **Pulseless polymorphic VT / Torsades** — defibrillate (+ magnesium for Torsades)

🚫 UNSHOCKABLE — CPR + EPI

A shock does nothing. CPR + epinephrine + fix the reversible cause.

- 🚫 **Asystole** — flat line; confirm in 2 leads
- 🚫 **Pulseless Electrical Activity (PEA)** — organized rhythm, no pulse
- 🚫 Both → **epinephrine 1 mg IV q3–5 min** + hunt the H's & T's

THE IN-BETWEEN GROUP: Organized tachycardias that still have a pulse (SVT, AFib, atrial flutter, VT with a pulse) are **NOT "SHOCKABLE" ARREST RHYTHMS** — but if the patient is **UNSTABLE** they get **SYNCHRONIZED CARDIOVERSION**, not defibrillation. Sinus tach & MAT are **NEVER** shocked — you treat the cause.

AT-A-GLANCE COMPARISON

RHYTHM	RATE	REGULARITY	P WAVE	QRS	SHOCK / ACTION
Sinus Tachycardia	100–150	Regular	Normal 1:1	Narrow	Treat cause — no shock
SVT / PSVT	150–250	Regular	Hidden/absent	Narrow	Cardiovert if unstable
Atrial Fibrillation	irreg, 100–160	Irregularly irregular	None	Narrow	Cardiovert if unstable + anticoag
Atrial Flutter	atrial 250–350	Reg/reg-irreg	Sawtooth	Narrow	Low-energy cardiovert + anticoag

RHYTHM	RATE	REGULARITY	P WAVE	QRS	SHOCK / ACTION
MAT	>100	Irregular	≥3 shapes	Narrow	Treat lung disease — no shock
Junctional Tach	100–180	Regular	Inverted/absent	Narrow	Treat cause (dig)
VT (mono)	100–250	Regular	Absent	Wide uniform	Cardiovert/Defib by pulse
Polymorphic VT	200+	Irregular	Absent	Wide varying	Defibrillate
Torsades	200–250	Irregular	Absent	Wide twisting	Mag; defib if pulseless
Ventricular Flutter	250–350	Regular	Absent	Sine wave	Defibrillate
Ventricular Fib	none	Chaotic	None	No QRS	Defibrillate
Asystole	0	Flat line	None	None	No shock — CPR+Epi
PEA	organized	Organized	Maybe	Present	No shock — CPR+Epi+cause

RHYTHM-BY-RHYTHM

01 SINUS TACHYCARDIA

100–150 bpm

Treat the cause — do NOT cardiovert



EKG STRIP FINDINGS

RATE	100–~150 (rarely >160)
RHYTHM	Regular
P WAVE	Normal, upright, 1 before every QRS
PR	Normal 0.12–0.20s
QRS	Narrow
HALLMARK	Normal complexes, just fast

PATHOPHYSIOLOGY

A normal SA node response to a demand: fever, pain, anxiety, exercise, hypovolemia, hypoxia, anemia, hyperthyroidism, stimulants/caffeine, shock.

TREATMENT

- ▶ **Treat the underlying cause** — it is a symptom, not the disease.
- ▶ Fluids for hypovolemia, antipyretics for fever, O2 for hypoxia, pain/anxiety control.
- ▶ **Never cardiovert** sinus tach; rate normalizes when the cause is fixed.
- ▶ Beta-blocker only if persistent & symptomatic after the cause is addressed.

STABLE — PRIORITY

Find & treat the trigger; monitor. Most cases resolve with cause correction.

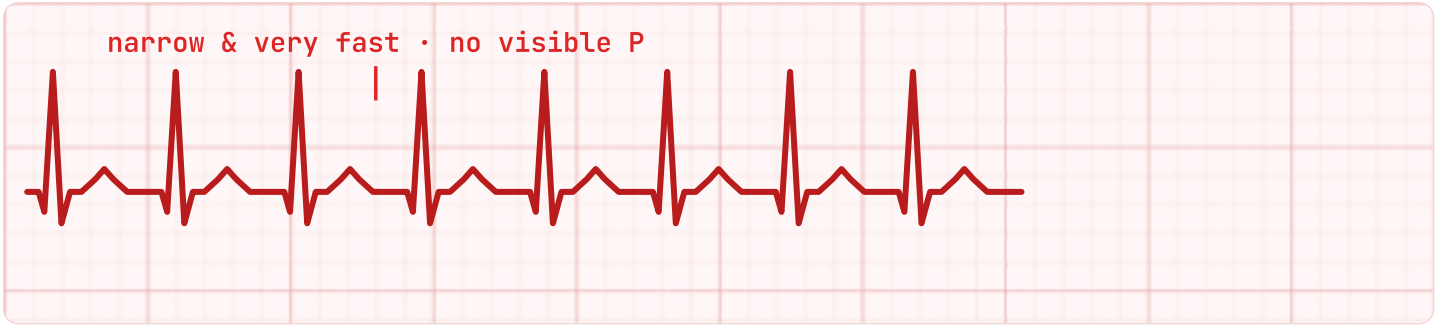
UNSTABLE — PRIORITY

Address the cause urgently (e.g., hemorrhage → fluids/blood) — do not shock.

02 SUPRAVENTRICULAR TACHYCARDIA (SVT)

150–250 bpm

Synchronized cardioversion if UNSTABLE



EKG STRIP FINDINGS

RATE	150–250
RHYTHM	Regular
P WAVE	Hidden in/after QRS or absent
PR	Not measurable
QRS	Narrow
HALLMARK	Fast, regular, narrow; P's buried

PATHOPHYSIOLOGY

A **reentry circuit above the ventricles** (AV-nodal or accessory pathway) drives the heart very fast. Filling time drops → cardiac output & BP can fall.

TREATMENT

- ▶ **Vagal maneuvers first** (bear down/Valsalva, carotid massage if no bruit) when stable.
- ▶ **Adenosine 6 mg rapid IV push** + fast saline flush → 12 mg if no conversion.
- ▶ Rate control: diltiazem or beta-blocker if adenosine fails.
- ▶ **Unstable → synchronized cardioversion.**

STABLE – PRIORITY

Vagal → adenosine → CCB/beta-blocker; continuous monitor, IV access, 12-lead.

UNSTABLE – PRIORITY

Hypotension / ↓LOC / chest pain → **synchronized cardioversion.**

03 PAROXYSMAL SVT (PSVT)

150–250 bpm

Synchronized cardioversion if UNSTABLE



EKG STRIP FINDINGS

RATE	150–250
RHYTHM	Regular
P WAVE	Hidden/absent
PR	Not measurable
QRS	Narrow
HALLMARK	Abrupt onset & abrupt termination

PATHOPHYSIOLOGY

SVT that **starts and stops suddenly** (paroxysmal). Same reentry mechanism; patients often feel a sudden “racing” that begins and ends out of nowhere.

TREATMENT

- ▶ Same ladder as SVT: **vagal maneuvers → adenosine 6 mg → 12 mg.**
- ▶ CCB/beta-blocker for rate control; consider ablation for recurrent PSVT.
- ▶ **Unstable → synchronized cardioversion.**

STABLE – PRIORITY

Vagal → adenosine; teach Valsalva for self-termination of future episodes.

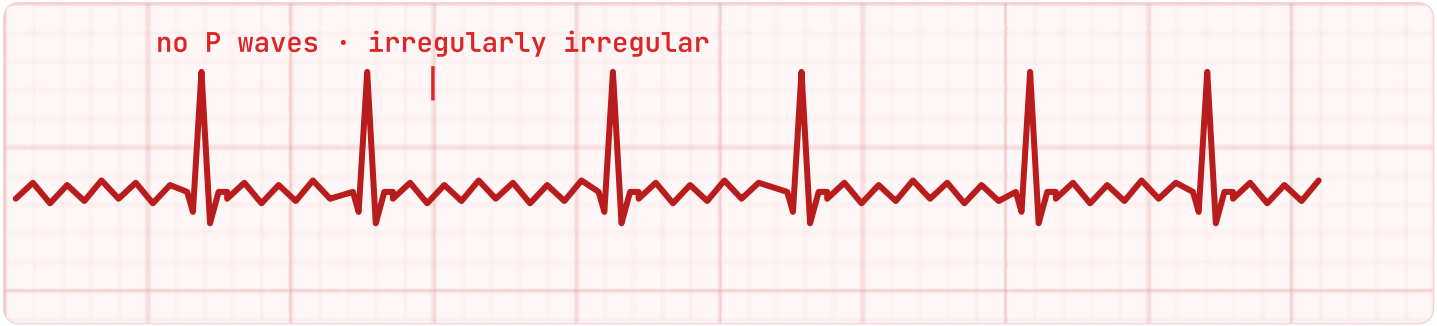
UNSTABLE – PRIORITY

Synchronized cardioversion for hemodynamic instability.

04 ATRIAL FIBRILLATION (AFIB)

atrial 350–600; vent. varies

Cardiovert if unstable • anticoagulate!



EKG STRIP FINDINGS

RATE	Ventricular irregular, often 100–160
RHYTHM	Irregularly irregular
P WAVE	None (fibrillatory waves)
PR	Not measurable
QRS	Narrow
HALLMARK	No P's + irregularly irregular

PATHOPHYSIOLOGY

Chaotic atrial activity → **loss of atrial kick** (↓~20% CO) and **blood stasis** in the atria → clot formation → **stroke risk**. The defining embolic-risk rhythm.

TREATMENT

- ▶ **Rate control:** diltiazem, beta-blocker, or digoxin.
- ▶ **Anticoagulate** (warfarin/DOAC) per CHA₂DS₂-VASc to prevent stroke.
- ▶ Rhythm control: antiarrhythmics or elective cardioversion.
- ▶ **Cardioversion clot rule:** if AFib >48 h, anticoagulate 3–4 wks or TEE first.
- ▶ Unstable → **synchronized cardioversion** now.

STABLE – PRIORITY

Rate-control + anticoagulation;
monitor for emboli/stroke; assess
CHA₂DS₂-VASc.

UNSTABLE – PRIORITY

Synchronized cardioversion
(emergent overrides the 48-h rule).

05 ATRIAL FLUTTER

atrial 250–350; vent. by ratio

Low-energy synchronized cardioversion if unstable



EKG STRIP FINDINGS

RATE	Atrial 250–350; vent. depends on block (2:1, 3:1...)
RHYTHM	Regular or regularly irregular
P WAVE	Sawtooth flutter (F) waves
PR	Not measurable
QRS	Narrow
HALLMARK	Sawtooth baseline

PATHOPHYSIOLOGY

A single reentry circuit (usually right atrium) creates regular **sawtooth** waves. The AV node blocks some impulses (2:1, 3:1). Same stasis/**stroke risk** & loss of atrial kick as AFib.

TREATMENT

- ▶ **Rate control** (diltiazem, beta-blocker) & **anticoagulation**.
- ▶ Responds to **low-energy** synchronized cardioversion; catheter ablation often curative.
- ▶ Unstable → **synchronized cardioversion** (lower joules than AFib).

STABLE – PRIORITY

Rate-control + anticoagulation; same
embolic precautions as AFib.

UNSTABLE – PRIORITY

Synchronized cardioversion —
converts at low energy.

06 MULTIFOCAL ATRIAL TACHYCARDIA (MAT)

>100 bpm

Treat the cause (lung disease) – not cardioverted

≥3 different P shapes • irregular



EKG STRIP FINDINGS

RATE	>100
RHYTHM	Irregular
P WAVE	≥3 different morphologies
PR	Varies
QRS	Narrow
HALLMARK	Multiple P shapes from multiple atrial foci

TREATMENT

- ▶ **Treat the underlying lung disease & hypoxia** (the real fix).
- ▶ Correct electrolytes (K^+ , Mg^{2+}); non-dihydropyridine CCB (diltiazem) for rate.
- ▶ **Cardioversion does NOT work** (multiple foci) — avoid it.

STABLE – PRIORITY

Optimize oxygenation & pulmonary status; rate control; correct electrolytes.

UNSTABLE – PRIORITY

Support oxygenation/perfusion & treat the cause; shock is not the answer.

PATHOPHYSIOLOGY

Several irritable atrial foci fire, each making a differently shaped P wave. Strongly linked to **COPD / severe pulmonary disease** and hypoxia.

07 JUNCTIONAL TACHYCARDIA

100–180 bpm

Treat cause (dig toxicity) • cardiovert rarely

inverted/absent P • narrow • fast



EKG STRIP FINDINGS

RATE	100–180
RHYTHM	Regular
P WAVE	Inverted, absent, or retrograde
PR	Short or none
QRS	Narrow
HALLMARK	Junctional morphology at a fast rate

TREATMENT

- ▶ **Find & treat the cause** — check a digoxin level, hold digoxin if toxic.
- ▶ Correct electrolytes; beta-blocker or CCB to slow the rate.
- ▶ Usually **not cardioverted** (won't fix the underlying irritability).

STABLE – PRIORITY

Treat cause (dig/electrolytes); monitor; rate control as needed.

UNSTABLE – PRIORITY

Support perfusion & aggressively treat the cause (e.g., dig-specific antibody).

PATHOPHYSIOLOGY

An irritable AV junction fires rapidly and overrides the SA node. Classic causes: **digoxin toxicity**, myocardial ischemia, theophylline, post-cardiac surgery.

08 VENTRICULAR TACHYCARDIA (VT)

100–250 bpm

Pulse+unstable → cardiovert • Pulseless → DEFIBRILLATE



EKG STRIP FINDINGS

RATE	100–250
RHYTHM	Regular (usually)
P WAVE	Absent / dissociated
PR	None
QRS	Wide > 0.12s
HALLMARK	Run of ≥3 wide complexes, fast

PATHOPHYSIOLOGY

A ventricular focus drives a fast, wide-complex rhythm. Poor filling → output can collapse; VT can be **with a pulse** (perfusing) or **pulseless** (cardiac arrest) and may degrade to VF.

TREATMENT

- ▶ **Check a pulse first** — that decides everything.
- ▶ **Pulse + stable** → amiodarone (or procainamide/sotalol); correct electrolytes.
- ▶ **Pulse + unstable** → **synchronized cardioversion**.
- ▶ **Pulseless VT** → **DEFIBRILLATE** + high-quality CPR + epinephrine.

STABLE — PRIORITY

(Pulse, stable) Antiarrhythmic + monitor; treat ischemia/electrolytes; pads on.

UNSTABLE — PRIORITY

(Pulse) **synchronized cardioversion**; (no pulse) **defibrillate** + CPR.

09 MONOMORPHIC VENTRICULAR TACHYCARDIA

100–250 bpm

Pulse+unstable → cardiovert • Pulseless → DEFIBRILLATE



EKG STRIP FINDINGS

RATE	100–250
RHYTHM	Regular
P WAVE	Absent / dissociated
PR	None
QRS	Wide & uniform (all look alike)
HALLMARK	Identical wide complexes

PATHOPHYSIOLOGY

VT from a **single** ventricular focus, so every wide QRS looks the same. Often scar-related (prior MI). Same pulse-based decision tree as VT.

TREATMENT

- ▶ **Pulse + stable** → amiodarone / procainamide / sotalol.
- ▶ **Pulse + unstable** → **synchronized cardioversion**.
- ▶ **Pulseless** → **defibrillate** + CPR + epinephrine + amiodarone.

STABLE — PRIORITY

Antiarrhythmic, treat ischemia, electrolyte correction; ICD evaluation.

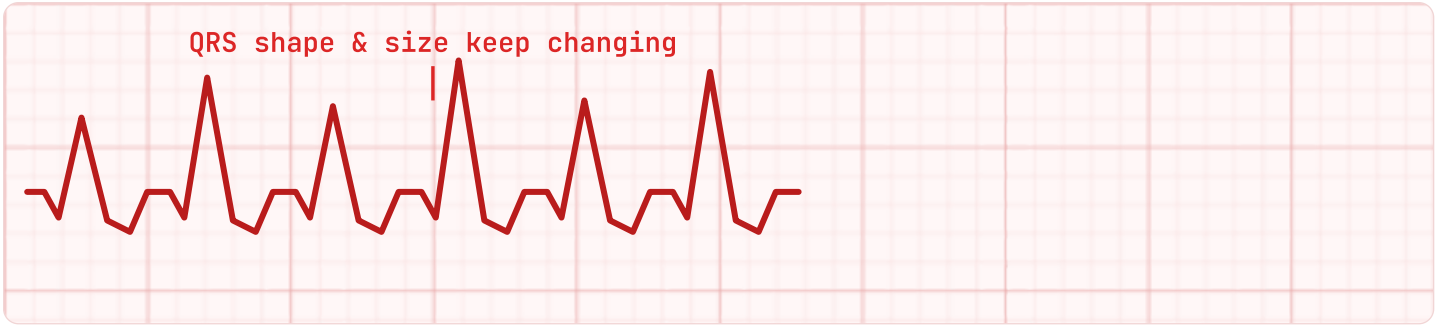
UNSTABLE — PRIORITY

Cardiovert (with pulse) or defibrillate (pulseless) + CPR.

10 POLYMORPHIC VENTRICULAR TACHYCARDIA

100–250+ bpm

Usually unstable/pulseless → DEFIBRILLATE



EKG STRIP FINDINGS

RATE	Fast, often 200+
RHYTHM	Irregular
P WAVE	Absent
PR	None
QRS	Wide, changing shape/amplitude
HALLMARK	QRS morphology varies beat-to-beat

PATHOPHYSIOLOGY

VT from **multiple/shifting** ventricular foci, so the QRS shape constantly changes. Often due to acute ischemia; frequently **unstable** and degenerates to VF quickly.

TREATMENT

- ▶ Correct ischemia & electrolytes (K^+ , Mg^{2+}).
- ▶ If a pulse & stable & **normal QT** → treat like VT (amiodarone).
- ▶ **Unstable / pulseless** → DEFIBRILLATE (unsynchronized) + CPR.
- ▶ If associated with long QT → this is Torsades (see next) → **magnesium**.

STABLE – PRIORITY

Rare to be truly stable; treat ischemia/electrolytes urgently, pads on.

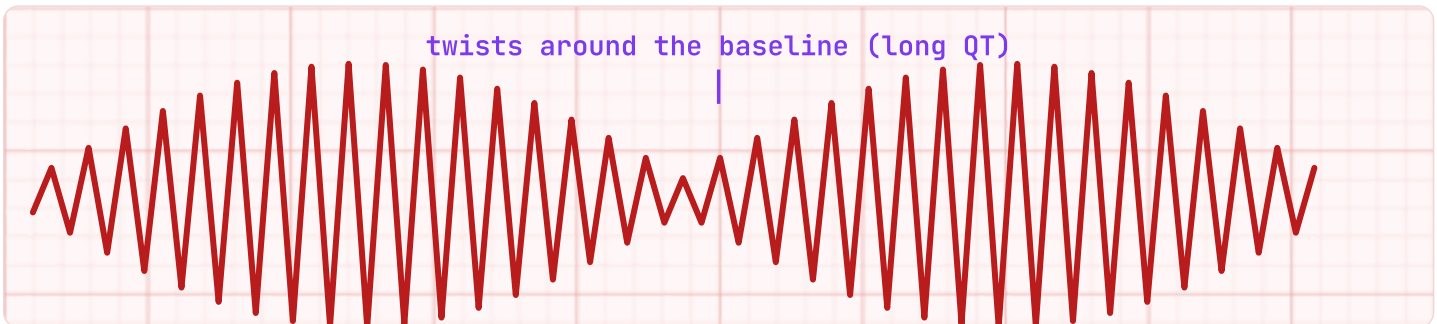
UNSTABLE – PRIORITY

Defibrillate + CPR (cannot reliably sync on changing complexes).

11 TORSADES DE POINTES

200–250 bpm

Mag first • pulseless → DEFIBRILLATE



EKG STRIP FINDINGS

RATE	200–250
RHYTHM	Irregular
P WAVE	Absent
PR	None
QRS	Wide, twisting around the baseline
HALLMARK	Spindle “twisting of the points” + prolonged QT

PATHOPHYSIOLOGY

A polymorphic VT on a background of **prolonged QT**. Causes: **low $Mg^{2+}/K^+/Ca^{2+}$** , QT-prolonging drugs (many antiarrhythmics, antipsychotics, some antibiotics), congenital long QT.

TREATMENT

- ▶ **IV magnesium sulfate** is the drug of choice (1–2 g IV).
- ▶ **Stop all QT-prolonging drugs**; replete K^+/Mg^{2+} .
- ▶ Overdrive pacing or isoproterenol for recurrent episodes.
- ▶ **Pulseless** → defibrillate + CPR.

STABLE – PRIORITY

(Brief/with pulse) **Magnesium**, fix electrolytes, remove offending drugs, monitor QT.

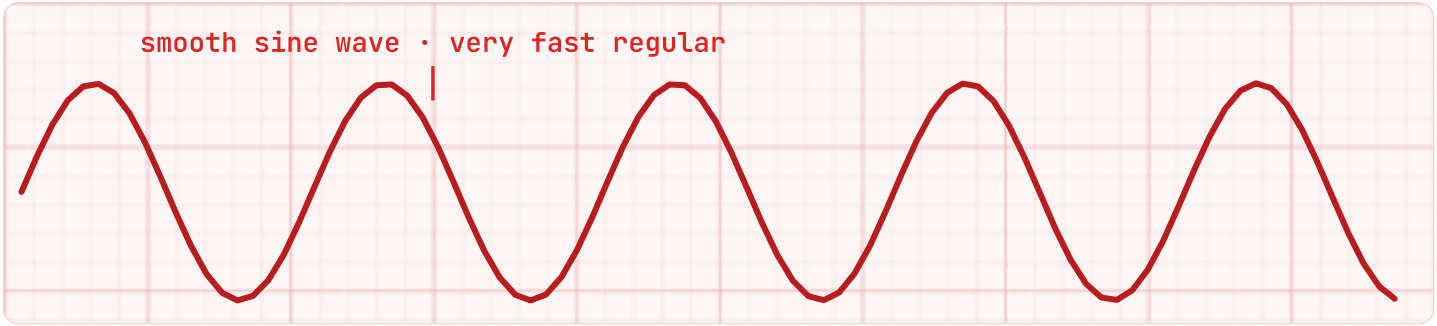
UNSTABLE – PRIORITY

Defibrillate if pulseless; magnesium; correct the cause.

12 VENTRICULAR FLUTTER

~250–350 bpm

SHOCKABLE → DEFIBRILLATE



EKG STRIP FINDINGS

RATE	~250–350
RHYTHM	Regular
P WAVE	Absent
PR	None
QRS	Wide, smooth sine-wave — QRS & T merge
HALLMARK	High-rate sine wave; precursor to VF

TREATMENT

- ▶ Treat as a **shockable cardiac-arrest rhythm**.
- ▶ **DEFIBRILLATE** immediately + high-quality CPR.
- ▶ Epinephrine q3–5 min; amiodarone; correct reversible causes.

STABLE — PRIORITY

Essentially never — treat as pulseless arrest.

UNSTABLE — PRIORITY

Defibrillate + CPR + epinephrine (manage like VF).

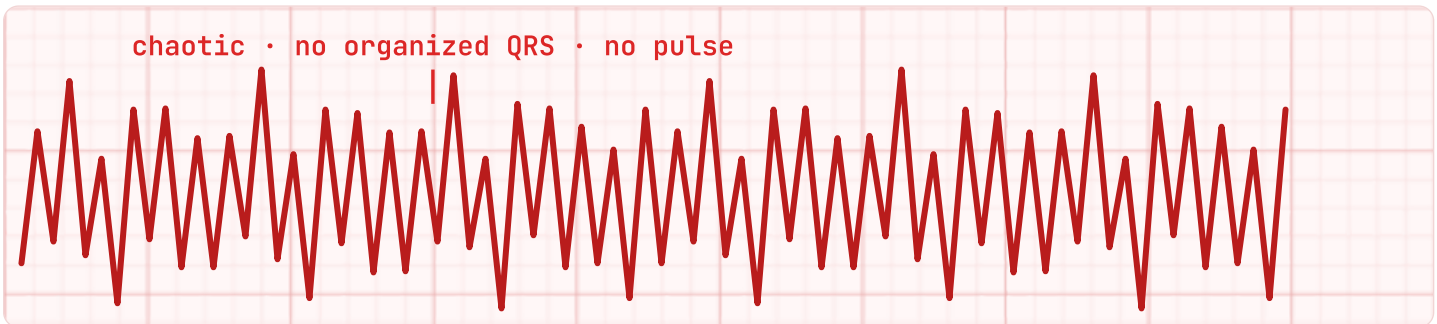
PATHOPHYSIOLOGY

Extremely rapid ventricular activity producing a smooth sine wave. The ventricles cannot fill — **no effective output** — and it rapidly **degenerates into VF**.

13 VENTRICULAR FIBRILLATION (VF)

no organized rate

SHOCKABLE → DEFIBRILLATE NOW



EKG STRIP FINDINGS

RATE	Indeterminate
RHYTHM	Chaotic, irregular
P WAVE	None
PR	None
QRS	No organized complexes — coarse or fine fibrillation
HALLMARK	Squiggly chaos, no pulse

TREATMENT

- ▶ **DEFIBRILLATE immediately** — the single most important intervention.
- ▶ High-quality CPR around shocks; resume compressions immediately after each shock.
- ▶ **Epinephrine 1 mg IV q3–5 min; amiodarone 300 mg IV push** (then 150 mg).
- ▶ Search & fix reversible causes (H's & T's).

STABLE — PRIORITY

N/A — always pulseless arrest.

UNSTABLE — PRIORITY

Defibrillate + CPR + epinephrine + amiodarone. Shock early & often.

PATHOPHYSIOLOGY

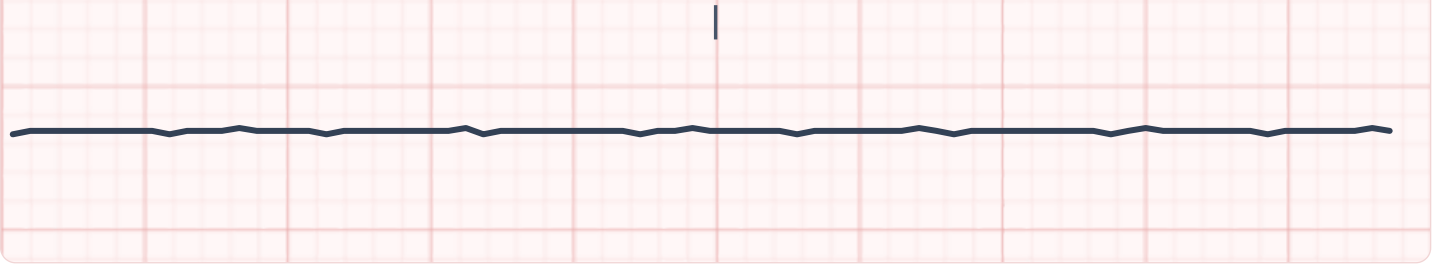
Ventricles quiver instead of contract → **no cardiac output** → the patient is in cardiac arrest. **The most common rhythm in sudden cardiac death.**

14 ASYSTOLE

0 (no activity)

NOT shockable → CPR + Epinephrine

flat line — confirm in 2 leads



EKG STRIP FINDINGS

RATE	None
RHYTHM	Flat line
P WAVE	None
PR	None
QRS	Absent
HALLMARK	No electrical activity — confirm in 2 leads

PATHOPHYSIOLOGY

Complete absence of electrical activity — the heart is not depolarizing at all.
Confirm it is real (check leads/connections, gain, and a second lead — rule out fine VF).

TREATMENT

- ▶ **NOT shockable** — defibrillation does nothing.
- ▶ **High-quality CPR + epinephrine 1 mg IV q3–5 min.**
- ▶ **Find & treat reversible causes (H's & T's)** — the key to any chance of return.
- ▶ Confirm asystole in ≥2 leads before stopping efforts.

STABLE — PRIORITY

N/A — pulseless arrest.

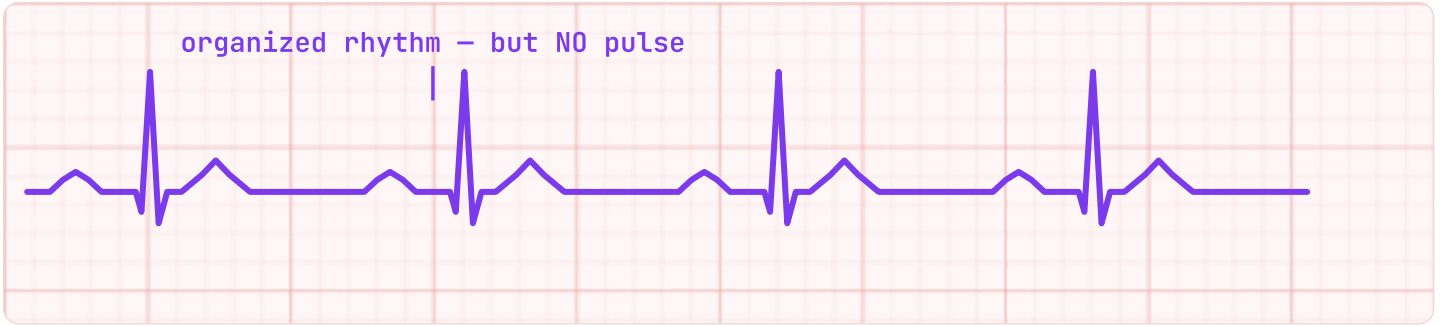
UNSTABLE — PRIORITY

CPR + epinephrine; treat H's & T's. **Do not defibrillate.**

15 PULSELESS ELECTRICAL ACTIVITY (PEA)

organized on monitor

NOT shockable → CPR + Epi + fix the cause



EKG STRIP FINDINGS

RATE	Any (organized)
RHYTHM	Organized electrical activity
P WAVE	May be present
PR	Variable
QRS	Present (narrow or wide)
HALLMARK	Organized rhythm but NO pulse

PATHOPHYSIOLOGY

The monitor shows an organized rhythm that **should** produce a pulse, but there is **no palpable pulse** — mechanical failure. Survival depends on finding the **reversible cause**.

TREATMENT

- ▶ **NOT shockable** — do not defibrillate.
- ▶ **High-quality CPR + epinephrine 1 mg IV q3–5 min.**
- ▶ **Hunt the H's & T's aggressively** — reversing the cause is the only real fix.
- ▶ Common culprits: hypovolemia, hypoxia, tension pneumothorax, tamponade, PE, MI, K⁺ problems.

STABLE — PRIORITY

N/A — pulseless arrest.

UNSTABLE — PRIORITY

CPR + epinephrine + treat the cause (H's & T's). No shock.

CARDIOVERSION VS DEFIBRILLATION

SYNCHRONIZED CARDIOVERSION

HAS A PULSE · UNSTABLE

- ▶ **Synced to the R wave** so the shock avoids the T wave (prevents R-on-T → VF).
- ▶ For **unstable tachycardias WITH a pulse**: SVT/PSVT, AFib, atrial flutter, VT with a pulse.
- ▶ **Lower energy** (flutter/SVT convert at low joules; AFib & VT need more) — per device protocol.
- ▶ **Elective AFib**: NPO, sedation/consent, and **anticoagulate ×3–4 wks or TEE** if >48 h (clot risk).
- ▶ Press & **hold** the shock button — the device fires on the next R wave (slight delay).

DEFIBRILLATION

NO PULSE · SHOCKABLE

- ▶ **Unsynchronized shock** — there is no organized R wave to sync to.
- ▶ For **pulseless shockable rhythms**: VF and **pulseless VT** (and ventricular flutter).
- ▶ **High energy** (biphasic per device, e.g., 120–200 J; monophasic 360 J).
- ▶ **Resume CPR immediately** after the shock — do not pause to recheck the rhythm.
- ▶ You **cannot** sync-cardiovert VF (no R wave) → it must be defibrillated.

SHOCK SAFETY (BOTH): Call “I’m clear, you’re clear, everybody clear” and confirm **NO ONE IS TOUCHING THE PATIENT OR BED**. Move **OXYGEN AWAY** from the chest during the shock. Place pads correctly (not over an implanted pacemaker/ICD or a medication patch — remove patches first). Sedate the conscious patient before **elective** cardioversion.

HIGH-QUALITY CPR

100–120

COMPRESSIONS / MIN

≥2 IN

DEPTH (5–6 CM)

30:2

COMPRESSION : BREATH

2 MIN

SWITCH COMPRESSORS

Push fast

Push hard, full recoil

No advanced airway

Limit fatigue

C COMPRESSIONS FIRST

— start chest compressions immediately (adult C-A-B sequence).

A AIRWAY

— open with head-tilt/chin-lift (jaw-thrust if trauma).

B BREATHING

— 2 breaths per 30 compressions; avoid over-ventilation.

- ✓ Allow **complete chest recoil** between compressions — don't lean.
- ✓ With an **advanced airway**: continuous compressions + 1 breath every 6 seconds.
- ✓ Rotate the compressor **every 2 minutes** (at rhythm checks) to keep quality high.
- ✓ **Minimize interruptions** — keep pauses under 10 seconds.
- ✓ **Defibrillate ASAP** for shockable rhythms; resume compressions right after the shock.
- ✓ Push on a **firm surface**; place heel of hand on the lower half of the sternum.

REVERSIBLE CAUSES — H'S & T'S

THE H'S

Hypovolemia — give volume/blood
Hypoxia — oxygenate, secure airway
Hydrogen ion (acidosis) — ventilation, treat cause
Hypo-/Hyperkalemia — correct potassium
Hypothermia — rewarm
Hypoglycemia — give dextrose

THE T'S

Tension pneumothorax — needle decompression
Tamponade (cardiac) — pericardiocentesis
Toxins — antidote/reverse
Thrombosis — pulmonary (PE)
Thrombosis — coronary (MI)

KEY MEDICATIONS

ADENOSINE

6 mg rapid IV push → 12 mg

First drug for stable **SVT/PSVT**. **Push fast** through the closest port + rapid saline flush. Warn patient: brief flushing, chest pressure, "sense of doom," and a few seconds of pause.

AMIODARONE

300 mg IV (arrest) • 150 mg (stable VT)

Antiarrhythmic for **VT/VF** and AFib. **300 mg IV push** in VF/pulseless VT after shocks; 150 mg over 10 min for stable wide-complex VT.

MAGNESIUM SULFATE

1-2 g IV

Drug of choice for Torsades de Pointes. Also repletes Mg in the long-QT patient; correct K⁺ too.

EPINEPHRINE

1 mg IV q3-5 min

Given in **every** pulseless arrest — VF, pulseless VT, **asystole**, and **PEA**. Improves coronary & cerebral perfusion during CPR.

DILTIAZEM / BETA-BLOCKERS

rate control

Rate control for AFib, atrial flutter, and SVT. Slow AV conduction; watch for hypotension/bradycardia.

ANTICOAGULATION

warfarin / DOAC

For **AFib & atrial flutter** to prevent embolic stroke (per CHA₂DS₂-VASc), and before/after cardioversion of AFib >48 h.

PATIENT EDUCATION

TEACHING CHECKLIST

- ✓ Limit caffeine, nicotine, stimulants, and excess alcohol — common tachycardia triggers.
- ✓ Report palpitations, chest pain, fainting, or new shortness of breath promptly.

- ✓ **AFib/flutter:** take anticoagulants exactly as prescribed; never stop without your provider.
- ✓ Learn **Valsalva/vagal** technique to self-terminate SVT episodes if your provider approves.
- ✓ Take radial pulse; know your target/limit and when to call.
- ✓ On warfarin: keep vitamin-K intake consistent & attend INR checks; report unusual bleeding/bruising.
- ✓ Know your meds that prolong QT; report fainting that could signal Torsades.
- ✓ Encourage household members to learn **CPR & AED** use.

SAVE & PRINT THIS GUIDE

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