EKG Rhythm Strip Practice Test

Paper A · 20 strips · answer key at the back

Name _____ Date _____ Score _____ / 20

The test

Each strip is 6 seconds of lead II at 25 mm/s and 10 mm/mV. Each question asks for the interpretation of the strip. Circle the one best answer. An answer has to be the whole interpretation: if a strip shows two findings, the answer that names only one of them is wrong.

To pass

16 of 20 right (80%), and every lethal rhythm named correctly. This paper has 3. Ventricular tachycardia, ventricular fibrillation, torsades de pointes and asystole are the lethal rhythms: on most hospital exams one of them named wrong fails the paper whatever the score. Allow 30 minutes. Hospitals set their own pass mark, usually 80 or 85%; use the one you were given.

The paper is true to scale

Print at 100% ("actual size"), not "fit to page". One small square is then 1 mm wide, which is 0.04 seconds, and one large square is 5 mm, which is 0.20 seconds. Check with a ruler: the strip is 150 mm long. Calipers work on it as they do on a monitor printout.

Reading a strip

1. Rate: count the QRS complexes on the 6-second strip and multiply by 10; on a regular rhythm, 1500 divided by the small squares between two R waves.
2. Rhythm: are the R-R intervals even?
3. P waves: one before every QRS, more P waves than QRS complexes, a sawtooth, or none.
4. PR interval: 0.12 to 0.20 s is normal (3 to 5 small squares). Constant, lengthening, or different on every beat?
5. QRS: under 0.12 s is narrow (under 3 small squares); 0.12 s or more is wide.

After the test

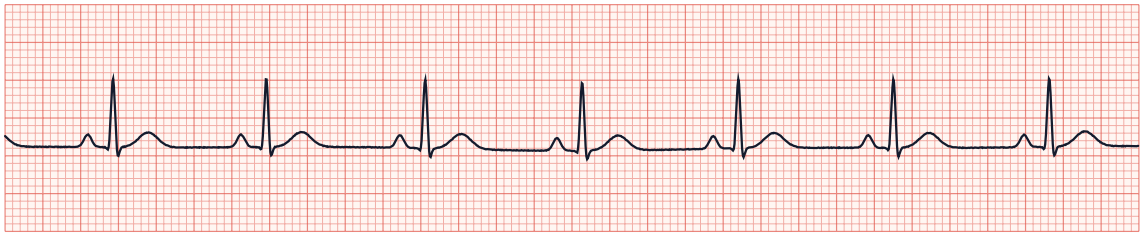
The answer key gives the interpretation of each strip with its measured rate, PR interval and QRS, and the feature that decides it. Every strip was drawn from the published criteria for its rhythm and then measured by a separate program that sees only the finished trace; the numbers in the key are those measurements.

Unlimited practice, timed online exams with a full report, and a new printable paper whenever you want one: ekgstrips.com

Simulated strips, for education and practice only. Not patient recordings; not for diagnosis or patient care.

What is the interpretation of this strip?

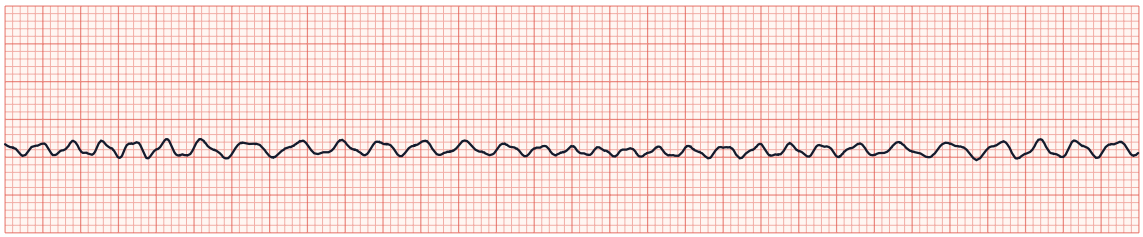
1.



A. Normal sinus rhythm
B. Sinus rhythm with first-degree AV block
C. Second-degree type I (Wenckebach)
D. Atrial fibrillation

What is the interpretation of this strip?

2.



A. Ventricular tachycardia
B. Atrial fibrillation
C. Asystole
D. Ventricular fibrillation

What is the interpretation of this strip?

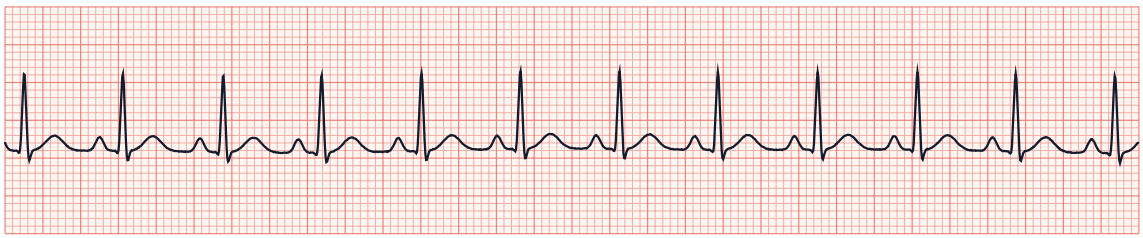
3.



A. Junctional rhythm
B. Sinus rhythm with first-degree AV block
C. Normal sinus rhythm
D. Sinus bradycardia

What is the interpretation of this strip?

4.

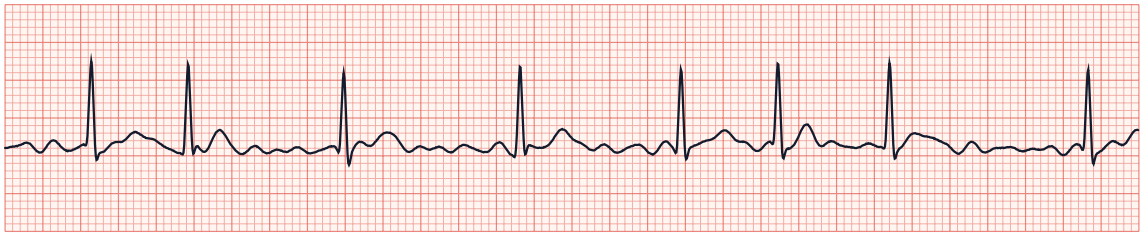


A. Normal sinus rhythm
B. Ventricular tachycardia
C. SVT
D. Sinus tachycardia

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What is the interpretation of this strip?

5.



A. Atrial fibrillation
B. SVT
C. Sinus arrhythmia
D. Second-degree type I (Wenckebach)

What is the interpretation of this strip?

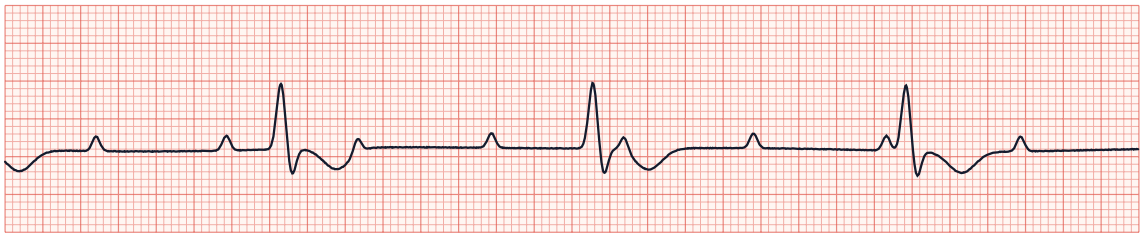
6.



A. Sinus rhythm with PACs
B. Sinus arrhythmia
C. Atrial fibrillation
D. Second-degree type I (Wenckebach)

What is the interpretation of this strip?

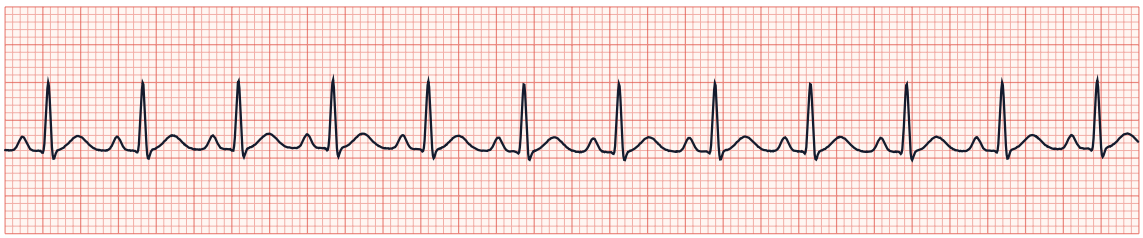
7.



A. Sinus rhythm with first-degree AV block
B. Second-degree type II (Mobitz II)
C. Second-degree type I (Wenckebach)
D. Third-degree AV block

What is the interpretation of this strip?

8.

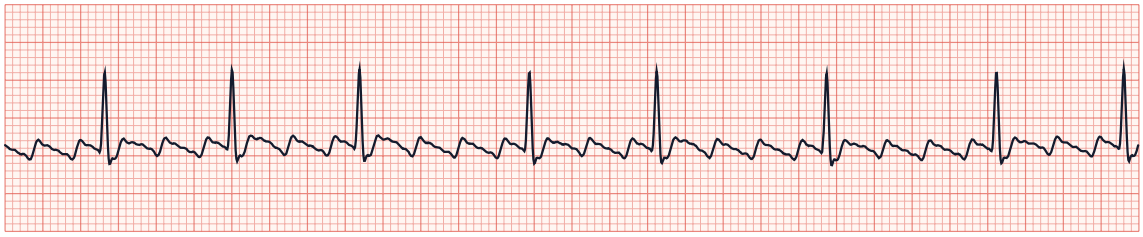


A. Atrial flutter
B. Sinus tachycardia
C. SVT
D. Normal sinus rhythm

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What is the interpretation of this strip?

9.



A. Atrial fibrillation
B. SVT
C. Atrial flutter
D. Sinus tachycardia

What is the interpretation of this strip?

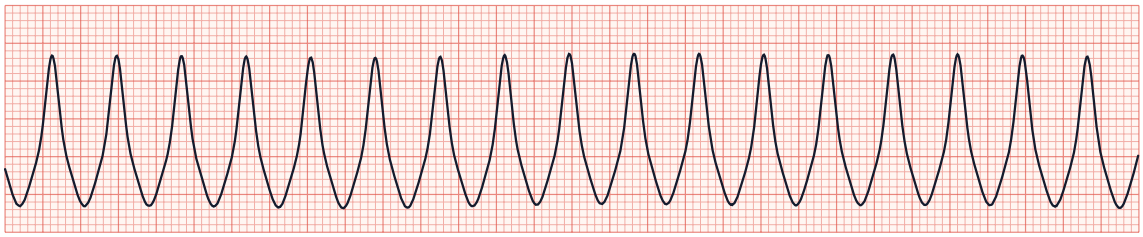
10.



A. Sinus rhythm with first-degree AV block
B. Third-degree AV block
C. Sinus bradycardia
D. Normal sinus rhythm

What is the interpretation of this strip?

11.



A. SVT
B. Ventricular fibrillation
C. Torsades de pointes
D. Ventricular tachycardia

What is the interpretation of this strip?

12.

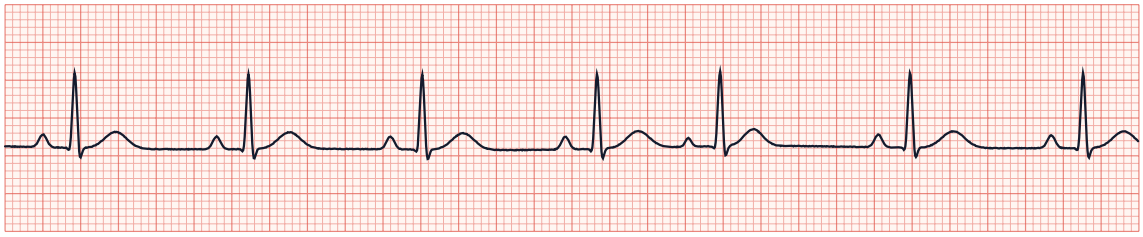


A. Second-degree type II (Mobitz II)
B. Third-degree AV block
C. Second-degree type I (Wenckebach)
D. Atrial fibrillation

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What is the interpretation of this strip?

13.



A. Sinus rhythm with PACs
B. Atrial fibrillation
C. Second-degree type I (Wenckebach)
D. Sinus arrhythmia

What is the interpretation of this strip?

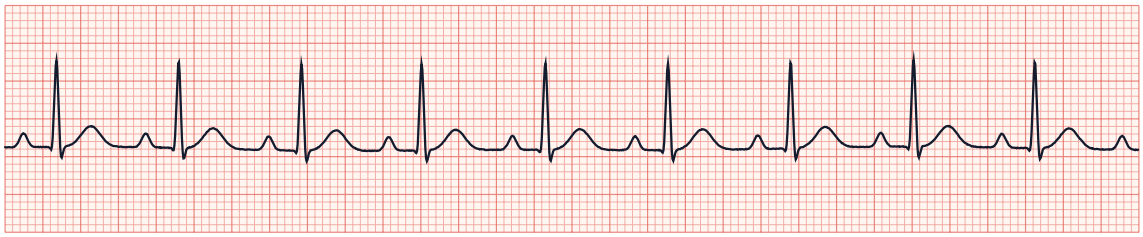
14.



A. Junctional tachycardia
B. SVT
C. Ventricular tachycardia
D. Sinus tachycardia

What is the interpretation of this strip?

15.



A. Atrial fibrillation
B. Second-degree type I (Wenckebach)
C. Normal sinus rhythm
D. Sinus rhythm with first-degree AV block

What is the interpretation of this strip?

16.

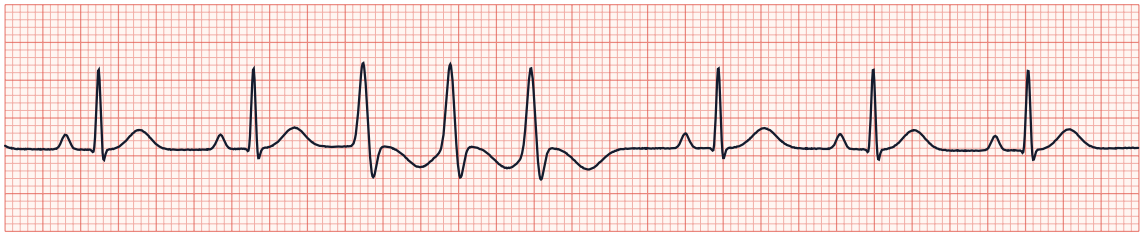


A. AV paced rhythm
B. Paced rhythm
C. Atrial paced rhythm
D. Failure to capture

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What is the interpretation of this strip?

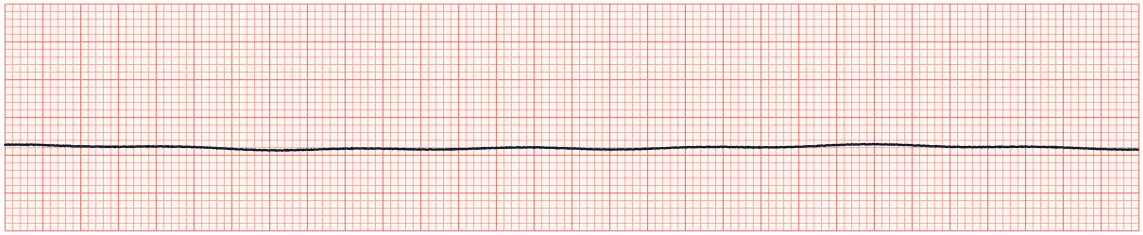
17.



A. PVC triplet (3-beat run of V-tach)
B. Sinus rhythm with PVCs
C. Sinus rhythm with a PVC couplet
D. Multifocal PVCs

What is the interpretation of this strip?

18.



A. Third-degree AV block
B. Idioventricular rhythm
C. Ventricular fibrillation
D. Asystole

What is the interpretation of this strip?

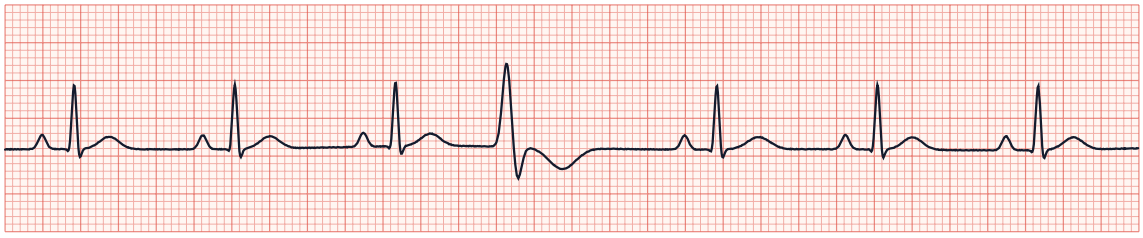
19.



A. Second-degree type I (Wenckebach)
B. SVT
C. Atrial fibrillation
D. Sinus arrhythmia

What is the interpretation of this strip?

20.



A. Sinus rhythm with PVCs
B. Sinus rhythm with ventricular bigeminy
C. Multifocal PVCs
D. Sinus rhythm with PACs

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Answer key

EKG Rhythm Strip Practice Test, Paper A. The numbers are measured on the strip itself.

1. A — Normal sinus rhythm
Rate 73 bpm · PR 0.14 s · QRS 0.08 s
Regular, with one P wave in front of every QRS. The yardstick for everything else.

2. D — Ventricular fibrillation LETHAL
Rate None · PR None · QRS None
Chaos. No P waves, no QRS complexes, nothing to measure.

3. D — Sinus bradycardia
Rate 45 bpm · PR 0.20 s · QRS 0.08 s
Normal sinus rhythm in every way except the rate, which is below 60.

4. D — Sinus tachycardia
Rate 114 bpm · PR 0.13 s · QRS 0.08 s
Normal sinus rhythm in every way except the rate, which is above 100. The P waves are still there.

5. A — Atrial fibrillation
Rate ~80 bpm · PR Not measurable · QRS 0.08 s
Irregularly irregular, with a wavy baseline and no P waves you can point to.

6. A — Sinus rhythm with PACs
Rate ~70 bpm · PR 0.16 s · QRS 0.08 s
A beat that comes early, with a P wave of a different shape and a normal narrow QRS.

7. D — Third-degree AV block
Rate 36 bpm · PR Varies · QRS 0.17 s
P waves and QRS complexes are each regular, but have nothing to do with each other.

8. B — Sinus tachycardia
Rate 119 bpm · PR 0.14 s · QRS 0.08 s
Normal sinus rhythm in every way except the rate, which is above 100. The P waves are still there.

9. C — Atrial flutter
Rate ~80 bpm · PR Not measurable · QRS 0.07 s
Sawtooth flutter waves at about 300 a minute, with a QRS after every third or fourth one.

10. C — Sinus bradycardia
Rate 54 bpm · PR 0.17 s · QRS 0.09 s
Normal sinus rhythm in every way except the rate, which is below 60.

11. D — Ventricular tachycardia LETHAL
Rate 175 bpm · PR None · QRS 0.16 s, wide
Fast, wide and regular. Always check for a pulse.

12. C — Second-degree type I (Wenckebach)
Rate ~50 bpm · PR Lengthening · QRS 0.09 s
The PR interval gets longer, longer, longer, then a QRS is dropped.

13. A — Sinus rhythm with PACs
Rate ~70 bpm · PR 0.17 s · QRS 0.09 s
A beat that comes early, with a P wave of a different shape and a normal narrow QRS.

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Answer key

EKG Rhythm Strip Practice Test, Paper A. The numbers are measured on the strip itself.

14. A — Junctional tachycardia

Rate 132 bpm · PR 0.11 s, short · QRS 0.07 s

Narrow, regular, faster than 100, with no P wave in front of the QRS.

15. C — Normal sinus rhythm

Rate 93 bpm · PR 0.18 s · QRS 0.08 s

Regular, with one P wave in front of every QRS. The yardstick for everything else.

16. A — AV paced rhythm

Rate 78 bpm · PR 0.20 s between the spikes · QRS 0.17 s, wide

Two pacing spikes per beat: one before the P wave and one before a wide QRS.

17. A — PVC triplet (3-beat run of V-tach)

Rate ~80 bpm · PR 0.18 s on sinus beats · QRS 0.08 s; early beats 0.15 s

Three PVCs in a row: the shortest run of ventricular tachycardia.

18. D — Asystole LETHAL

Rate 0 · PR None · QRS None

A nearly flat line. No electrical activity at all.

19. C — Atrial fibrillation

Rate ~90 bpm · PR Not measurable · QRS 0.07 s

Irregularly irregular, with a wavy baseline and no P waves you can point to.

20. A — Sinus rhythm with PVCs

Rate ~70 bpm · PR 0.17 s on sinus beats · QRS 0.09 s; early beat 0.17 s

A beat that comes early and is wide, with no P wave and a T wave pointing the other way.

Score: _____ / 20 **Needed to pass: 16** **Lethal rhythms right: _____ / 3**

For the strips you missed, each rhythm has a page at ekgstrips.com/rhythms with measured examples and the rhythms it is confused with.

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