

Level 7: The basic rhythm and its interruptions

When a certain rhythm is present for an extended period of time, we state in our ECG report that “The basic rhythm is ...”. You can fill in the blank of the preceding statement with one of the rhythms that we’ve already encountered:

Normal sinus rhythm

Atrial fibrillation

Atrial flutter

Broad complex tachycardia

Narrow complex tachycardia

Junctional rhythm

Second degree AV block

Third degree AV block

Artificial pacemaker

This chapter is a primer for steps 7 to 9 of the Rhythm Cheat Sheet. These steps are dealing with interruptions of the basic rhythm:

	initial question	answer	additional question	rhythm diagnosis	
BASIC RHYTHM INTERRUPTED	7	Do you see a rhythm switch?	N Y	Which ones?	
	8	Do you see premature beats?	N Y	preceding premature P?	Supraventricular premature beat (SPB)
				no preceding premature P?	Ventricular premature beat (VPB)
	9	Do you see a remarkable pause?	N Y	following ventricular premature beat?	Compensatory pause
				after termination of TC?	Preautomatic pause
				“empty” pause	SA (sinoauricular) block
				containing premature P?	Supraventricular premature beat + AV block
				terminated by a QRS with a different shape than the rest of the QRS complexes	Escape beat

Steps 7 to 9 of the Rhythm Cheat Sheet

There are a few characteristic interruptions of the basic rhythm:

1. A change from one basic rhythm to another one = rhythm switch
e.g., From atrial fibrillation to sinus rhythm



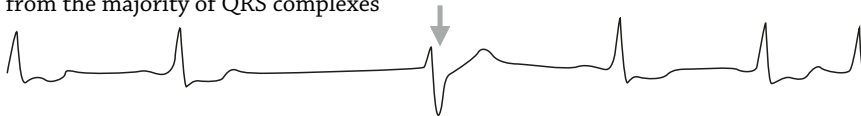
2. A QRS complex that comes too early
Extrasystoles, premature beats, or ectopic beats



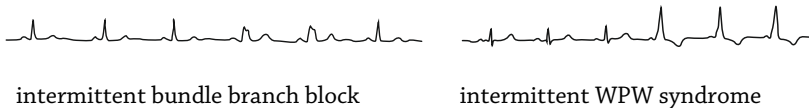
3. Unexpected pauses



4. Escape beats
Unexpected beats terminating a pause - their shape is usually different from the majority of QRS complexes



5. Intermittent bundle branch block or intermittent WPW syndrome



In our algorithm to diagnose arrhythmias we must now go step by step and ask the following questions:

1. **Is there a basic rhythm, and if so, which one?** Steps 1 to 6 of your cheat sheet will help you identify the basic rhythm.
2. **Can we see a change of rhythms (rhythm switch)?** What rhythms can we see? Go through steps 1 to 6 of your cheat sheet until you have identified all the rhythms that can be seen on the ECG.
3. **Can we see unexpected beats interrupting our basic rhythm?** Are there premature beats or escape beats?
4. **Is the interval preceding the unexpected beat shorter (premature beat) or longer (escape beat) than the usual interval?**
5. **Can we see unexpected pauses?** In level 9 you'll learn more about pauses.
6. **Can we see a sudden change of QRS shape without a rhythm switch?** We might be dealing with intermittent bundle branch block or intermittent WPW syndrome.

