

delay with intermittent failure to conduct (Mobitz II). The mass of the sinus node is not large enough to have an appearance on the ECG. Instead, the P waves that result from atrial depolarization can provide information that reflects the health of the sinus node. Type II second-degree SA block can be inferred on the ECG if the sinus rate abruptly transitions to a sinus rate that is half the previous rate (every other sinus depolarization is blocked from exiting to the atrium). Sinoatrial Wenckebach can be inferred from the ECG in the setting of progressive shortening of the P-P interval leading up to a sinus pause. This is due to progressive prolongation of sinoatrial conduction, but to a lesser extent with each successive prolongation. This is similar to the typical progressive shortening of the R-R interval that is observed with AV nodal Wenckebach. Other types of SA block require invasive EPS to decipher. The exercise of determining the type of SA block with invasive electrophysiology testing is typically not necessary because it does not alter management.



FIGURE 244-4 A. Mobitz type I SA nodal exit block. A theoretical SA node electrogram (SAN EG) is shown. Note that there is grouped beating producing a regularly irregular heart rhythm. The SA node EG rate is constant with progressive delay in exit from the node and activation of the atria, inscribing the P wave. This produces subtly decreasing P-P intervals before the pause, and the pause is less than twice the cycle length of the last sinus interval. **B.** Mobitz type II SA nodal exit block. This panel shows sinus rhythm in the first four beats followed by a sinus pause with the absence of a P wave. The interval comprising the absent P wave is exactly twice as long as the preceding P-P interval consistent with type II sinoatrial exit block. SA, sinoatrial.