

## Atrioventricular Blocks (A-V Blocks)

The heart has an electrical system through which impulses travel causing the orderly contraction of heart muscle. There are uniquely different forms of heart blocks, with A-V Blocks being different from the Bundle Branch Blocks previously discussed in Rx- Bundle Branch Block. AV Blocks can be First Degree, Second Degree, or Third Degree depending on the level of severity of the conduction delay. Delays in conduction through the heart may be congenital (as in congenital lupus) or acquired. Common causes of acquired AV block are: coronary artery disease (CAD), medication toxicity, rheumatic heart disease, heart surgery, and aging of the conduction system. Also, extremely fit (athletic) hearts can show mild forms of block (first degree and Mobitz I), which are of little concern. Heart blocks of all types are identified via an electrocardiogram (ECG). (See figure below.) A-V blocks are specifically identified via the measure of the P-R interval. The P-R interval is the time it takes for the electrical impulse to travel from the SA (sinoatrial) node where the impulse originates to the AV (atrioventricular) node. (See figure below.) A normal P-R interval is 0.12 to 0.20 seconds. Prolongation of the PR interval of more than 0.20 seconds is called a First Degree A-V Block. There are two types of Second Degree A-V Blocks. In Mobitz Type I (also known as the Wenckebach Phenomenon), the P-R interval actually increases with each heart beat until one of the impulses completely fails to conduct to the ventricles. In Mobitz Type II, the P-R interval remains constant, but with occasional missed/failed impulses. Third Degree Heart Block occurs if all impulses from the AV node are blocked so that the atria and the ventricles beat independently of one another. Stokes-Adams attack is a complication which may occur in Mobitz Type II Second Degree Heart Blocks and Third Degree Heart Blocks. It is syncope (fainting) due to a slow pulse in combination with the missed impulses. Pacemakers are often required when this combination exists.

**If your client is known to have a history of A-V Blocks, please answer the following:**

1. Please list date of diagnosis: \_\_\_\_\_

2. The AV Block has been diagnosed as:

First Degree block, PR < .30 seconds \_\_\_\_\_

Second Degree, Mobitz I \_\_\_\_\_

First Degree block, PR .30-.39 seconds \_\_\_\_\_

Second Degree, Mobitz II \_\_\_\_\_

First Degree block, PR .40+ seconds \_\_\_\_\_

Third Degree block \_\_\_\_\_

3. Please note usual resting heart rate: \_\_\_\_\_

**4. Have any of the following occurred (check all that apply):**

Pacemaker inserted \_\_\_\_\_

Congestive heart failure \_\_\_\_\_

Stokes-Adams attack \_\_\_\_\_

Valvular heart disease \_\_\_\_\_

History of cardiomyopathy \_\_\_\_\_

Congenital heart disease \_\_\_\_\_

History of coronary artery disease \_\_\_\_\_

**5. Is your client on any medications?**

If yes (Please give details) \_\_\_\_\_

**6. Has your client smoked cigarettes or any form of tobacco in the last 5 years?**

If yes (Please give details) \_\_\_\_\_

**7. Does your client have any other major health problems (ex: cancer, etc.)?**

If yes please give details \_\_\_\_\_