

ARRHYTHMIAS

The normal heart beats at approximately 70bpm in a healthy individual. The rate increases in those who are unfit and in those who suffer from various diseases. Abnormalities in heartbeat may be related to the rate, the rhythm or the force of contraction. Those abnormalities of heartbeat are referred to as arrhythmias. Arrhythmias may involve the atria, the chambers that receive venous blood and then empty into the ventricles, or the ventricles (the pumps that circulate blood around the body and the lungs).

In patients who suffer from respiratory disease, either obstructive diseases such as emphysema or chronic bronchitis, or interstitial disease such as asbestosis, atrial arrhythmias are common. The most common is atrial fibrillation and/or atrial flutter. This abnormality may present without warning and if severe enough, results in abnormalities in the ventricles which results in a reduction in pump pressure. If the arrhythmias are rapid enough they may result in poor filling of the atria and ventricles, and in those patients who suffer from coronary artery disease, may precipitate angina pain. If severe enough, arrhythmias can also precipitate a myocardial infarction (heart attack). Arrhythmias can occur without provocation or when exercising, they may awake patients from sleep and frequently occur if patients have a complicating pneumonia or pulmonary infection. The latter, of course, is common in those who suffer from interstitial lung disease (asbestosis).

Patients who suffer from asbestosis are also more likely to develop sleep apnoea. This may occur because of the reduced lung volumes and/or weight gain, which is common in those people who suffer from sleep apnoea. Sometimes an arrhythmia first presents when a patient has obstructive apnoea. Arrhythmias such as atrial fibrillation and atrial flutter may also complicate existing heart disease. When this occurs it is much more serious and may result in ventricular arrhythmias, which are very serious and often lethal. Patients who believe that they have either an abnormal heartbeat (too slow or too fast); or an irregular heartbeat (speeding up and slowing down) should report it to their physicians immediately. They can then be referred to the appropriate specialist. They can be investigated and treated appropriately so as not to be complicated by the serious ventricular problems. Thyroid abnormalities, sleep apnoea, interstitial lung disease, obstructive airway disease, gross obesity and hypoxia (low blood oxygen) are all commonly associated with arrhythmias and hence are commonly seen in patients who are suffering from interstitial disease or in patients who are hospitalised for treatment of an infection such as pneumonia, associated with

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interstitial disease. Your family physician will be able to diagnose these events quite readily and refer patients when necessary.