

## Heart Disease - Angina Pectoris

The most common cause of the coronary artery narrowing which gives rise to angina is **atherosclerosis**. This is due to a gradual accumulation of fatty or lipid material, complex carbohydrates, blood products fibrous and calcium deposits, within the inner lining of the vessels. The points at which the arteries are most severely narrowed are called **Stenoses** and the build up of fatty and other material is called an **athermanous plaque**.

The myocardial oxygen demands exceeds the supply with consequent angina usually when the heart is given an increased work load through physical exertion, intense emotional excitement or several activity. Pain may then be experienced in the centre of the chest. The discomfort may spread up into the neck and jaw and down into the arm. These symptoms will usually disappear within seconds to a few minutes provided the sufferer desists from the activity precipitating them.

Relief of symptoms may be accelerated by certain medications such as **Glycerol Trinitrate (Nitro glycerine)** taken under the tongue or alternatively **amyl nitrate** taken by inhalation for rapid absorption. The condition is therefore transient and reversible, essentially distinguishing it from acute myocardial infarction. In a few people, symptoms other than or in addition to anginal discomfort may arise such as palpitations, breathlessness or fainting. (**Syncope**).

### **There are three basic types of angina:**

- **Chronic Stable Angina:** This is common & there is no detectable tendency to evolve towards myocardial infarction or sudden death in the short term, symptoms are always related to exertion and rapidly relieved by rest.
- **Unstable Angina:** This may present in various ways. The sufferer may notice significant worsening of anginal symptoms over days or weeks with rapid reductions in exercise tolerance, i.e. the amount of activity that can be achieved without pain onset. Alternatively, spontaneous pain may occur for the first time or may become more frequent and prolonged, or pain episode may respond to nitrate. If any of those things are occurring, the angina is unstable. The sufferer is at high risk of acute myocardial infarction or of sudden death and should seek professional help immediately.
- **Variant angina:** The cause of this is unknown and probably due to spasm of branches of the coronary artery. There is no evidence or investigation of **atheromatous plaques or stenoses** in the vessel. The angina is not necessarily related to activity and may occur at any time, or may follow a regular time pattern.