

## **Chapter Four : Free Radical Activity : The Bane of The Modern World.**

It is a proven fact that heart disease starts young and the medical profession is still in the dark regarding a specific understanding of how heart disease, or any other malady, actually develops. Heart disease becomes serious within the muscle, or middle, layer of the arteries but before that happens the inner layer, which is in direct contact with the blood flow, gets damaged. The prime cause of this damage is something known as a free radical. Free radicals play an important role in both health and disease. On the one hand these are known to influence the growth and spread of cancer, AIDS, cardiovascular diseases etc., while on the other they are vital to health as metabolic instigators. Simply put, a free radical is an oxygen molecule having an odd number of electrons which happens when the molecule either loses a single electron or takes on an extra single molecule thus creating an imbalance which makes the molecule highly volatile, promiscuously unstable, violently reactive and very destructive. At the same time that oxygen and nutrients are processed in the mitochondria, the cell's complex power plant, a flux of free radicals are produced which head for the nearest fatty acids and react to produce even more free radicals. What a free radical actually does is to combine with and react chemically with another molecule that was never meant to be interfered with. If they remain uncontrolled, free radicals can break down cell structures by damaging important protein enzymes. The greatest source of excess free radical production is the trace metals in the body. It has recently become evident that the free radical is the most likely cause of all cancer and heart diseases, and probably every other form of disease not caused by bacteria.