

AT and Physical Illness

The Cardiovascular system - Standard Exercise 3 - Calm and regular heartbeat

The Cardiovascular or Circulatory System is made up of the heart and blood vessels (two pumps and two sets of tubes)

- Right and Left auricles receive blood; right and left ventricles pump blood
- Two sets of tubes: arteries and veins
- Control of the heart via the Vagus nerve 10th cranial nerve
- Under the control of the Autonomic Nervous System

Increased Sympathetic tone leads to:

- Increased heart rate
- Raised BP
- Increased cardiac output
- Increased O₂ consumption

Increased Parasympathetic tone has the opposite effects

Cardiovascular Diseases

Hypertension: BP higher than 140/90 (more recent criteria aims for lower readings)

- Symptomless but can lead to Left Ventricular Hypertrophy
- Associated with Atherosclerosis and Stroke
- High level of anxiety white coat effect
- 'Healthy' patient threatened with life-long medication

AT reduces sympathetic tone

- Helps to support lifestyle changes: diet, exercise, smoking etc
- May reduce or delay use of anti-hypertensive medication
- Self-monitoring ? helpful

Atherosclerosis

Narrowing of arteries due to deposition of fatty fibrinous tissue causing lack of O₂ to tissues

- Hypertension
- Angina heart attack
- Claudication
- Aortic aneurism
- Kidney failure
- Stroke, vascular dementia

Angina

Heart muscle temporarily deprived of O₂

- Classic symptoms: frightening, may mimic indigestion
- Treatment: angioplasty, medication, by-pass surgery

Myocardial Infarction also known as a heart attack is where an area of heart muscle actually dies.

- Death of cardiac muscle leaves a scar, blocks conduction
- May be fatal
- Cardiac surgery or transplant

Associated with angina and myocardial infarction are anxieties and fears of resuming physical and mental activity or the prospect of cardiac surgery both of the patient and family.

AT reduces anxiety, it reduces oxygen demand it can help to restore self-confidence.

The timing of embarking on an AT course is crucial

Disorders of Rhythm and Rate

- Atrial Fibrillation: bouts of irregular uneven pulse
- Paroxysmal tachycardia: frighteningly rapid pulse
- Bradycardia: slow pulse due to blockage of impulses in heart muscle, pacemaker fitted

All of these arrhythmias reduce cardiac output and the efficiency of heart and are associated with high levels of anxiety

AT can reduce anxiety and can be useful in an attack and as prophylaxis

Peripheral vascular disease

Known as Claudication it is due to atherosclerosis in the peripheral arteries; it affects the arteries of the legs causing pain on walking due to O₂ lack as in Angina.

Usually treated surgically life style changes are very important

Cardiac Neurosis

- Unexplained or mis-diagnosed chest pain
- Family history of heart disease and deaths
- High levels of anxiety

AT important after heart attack or cardiac surgery when symptoms have stabilised

Relief of anxiety

Prophylactic rest reduction in O₂ demands on cardiac muscle off-loading personal formulae