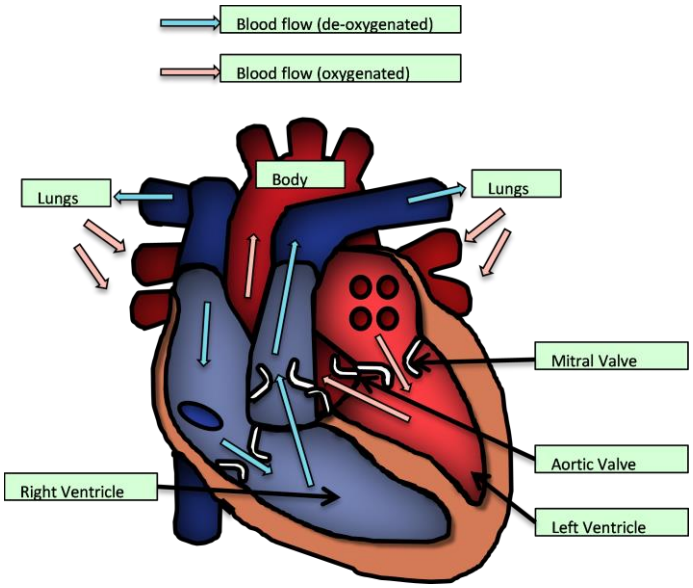
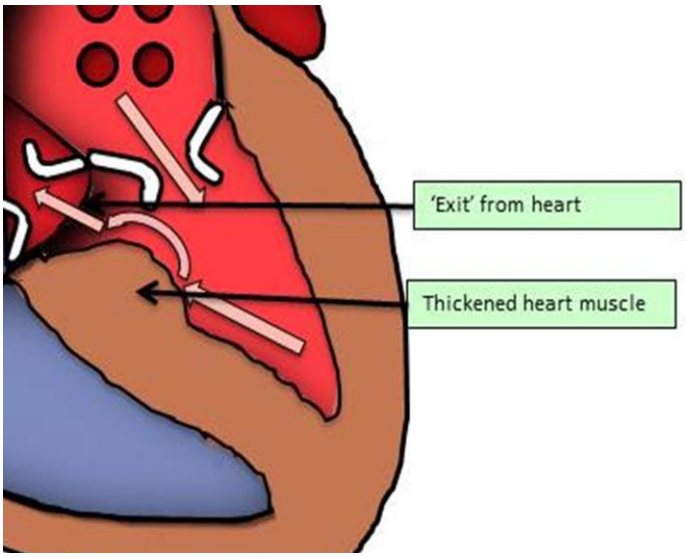
Liverpool Heart and Chest Hospital NHS
NHS Trust

Alcohol Septal Ablation (ASA) for Hypertrophic Obstructive Cardiomyopathy (HOCM)

Hypertrophic cardiomyopathy (HCM) is a condition where the heart muscle becomes thickened. Although HCM is a relatively rare heart disease, it is the commonest of the cardiomyopathies, affecting 1 in every 500 people. The location of the thickened heart muscle within the heart can vary, but tends to accumulate around the exit of the heart in the left ventricle. This can cause partial 'obstruction' to blood flowing to the body, and can result in debilitating symptoms of breathlessness, chest pain and fatigue.

Normal heart	Hypertrophic cardiomyopathy
	

Alcohol Septal Ablation

ASA aims to damage excess heart muscle, creating a small 'heart attack' to remove obstruction to blood flow. This is achieved by injecting pure alcohol into a small heart artery supplying the target area of heart muscle.

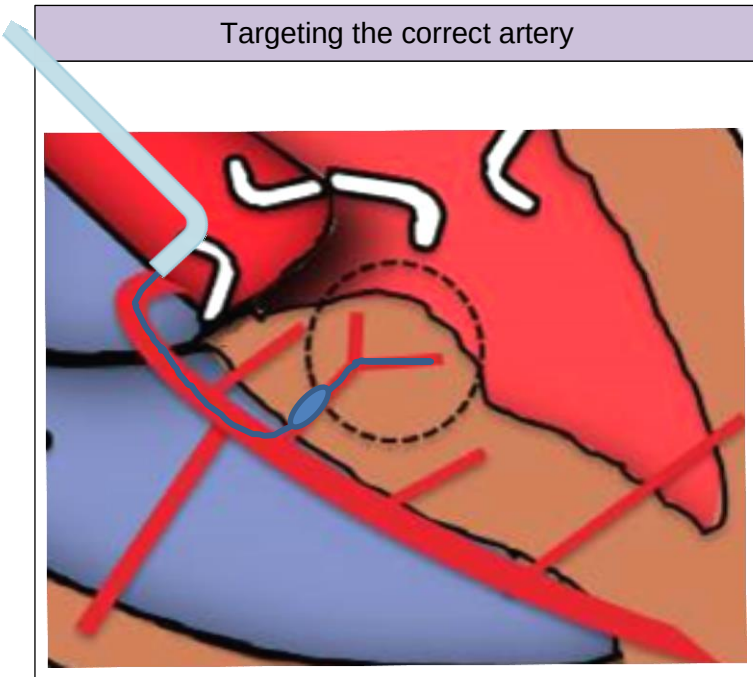
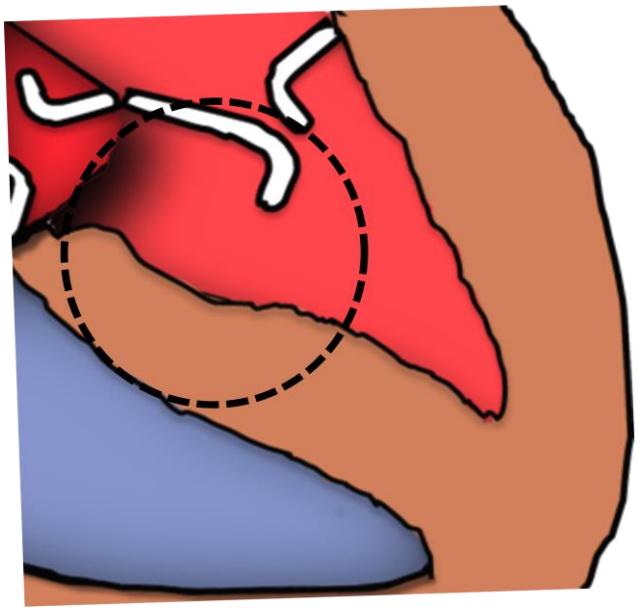
The area damaged by alcohol is small and does not damage the pumping function of your heart. Over time the damaged heart muscle will shrink, removing obstruction to blood flow. This improves symptoms in the majority of patients (70-80%), and increases exercise capacity.

The procedure, what to expect…..

Before the procedure you will undergo tests to ensure ASA is best for you. This will include echocardiogram (ultrasound scan of your heart), CT (to view blood vessels), heart MRI scan, and exercise testing.

The procedure will be performed in our cardiac catheterisation laboratory (similar to surgical theatre). You will have local anaesthetic to your groin and wrist, you will be awake but sedation is available. Plastic tubes (catheters) will be passed in arteries and veins to access the heart. A temporary pacemaker will be inserted through a vein in your groin if you do not already have a permanent system. The target vessel will be identified with X-ray pictures and checked with ultrasound contrast. Alcohol will then be injected. This can cause a burning sensation that tends to last 1-2 minutes. Pain relief is available if needed.

The procedure will last approximately 2 hours. You will return to the coronary care unit (CCU). Hospital stay will be 3-5 days. You will have an echocardiogram and in some cases a heart MRI scan before going home.

Targeting the correct artery	Reduction in septal size after alcohol injection
	

Complications:

Minor Complications:

- Haematoma (blood collection) or significant bruising at your wrist or groin (less than 1 in 100)
- Reaction to contrast (rare)

Major complications are rare in ASA.

- Need for permanent pacemaker (7 in 100)
- Fast abnormal heart rhythms/rates (1 in 100)
- Risk of serious complication requiring emergency surgery (less than 1 in 200)
- Death: Reported internationally as less than 1 in 250; Nil at LHCH.

There is a risk that alcohol will not be delivered after detailed exploration in the laboratory. Historically this happened in 5-10 per 100. This is being improved with a more detailed approach to pre-procedure planning with CT scanning.

Other treatment options:

Medications: Effective in relieving symptoms of breathlessness and chest pain for the majority.
Myectomy: Surgery carries some risk and has a prolonged rehabilitation period. Generally outcomes are very good. Your cardiologist will discuss these options with you before considering Alcohol Septal Ablation

Contacts:

Dr Robert Cooper; Consultant Cardiologist with special interest in Cardiomyopathy

- Phone; 0151 228 1391
- Email; rob.cooper@lhch.nhs.uk

Professor Rodney Stables; Consultant Interventional Cardiologist

- Secretary 0151 600 1489