

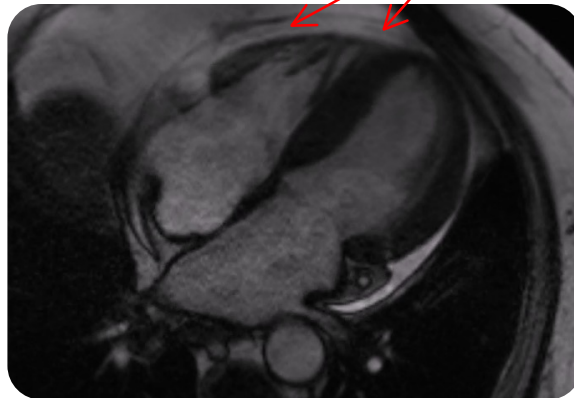
# Cardiac MRI Essentials

## The pericardium

CMR allows us to assess:

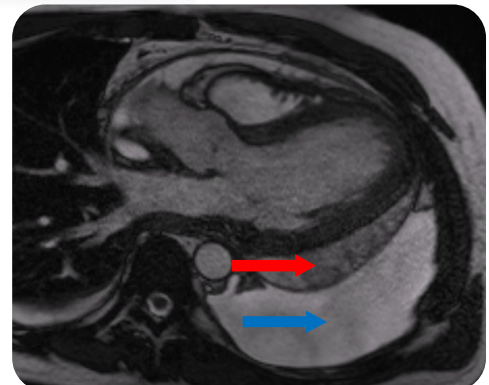
- Pericardial appearance
  - Thickening / fat / calcification
- Pericarditis
  - Pericardial  $\pm$  myocardial inflammation
- Pericardial effusion/tamponade
- Pericardial constriction
- Pericardial cysts/tumours

Normal pericardium is seen on CMR as a thin dark line in the pericardial fat

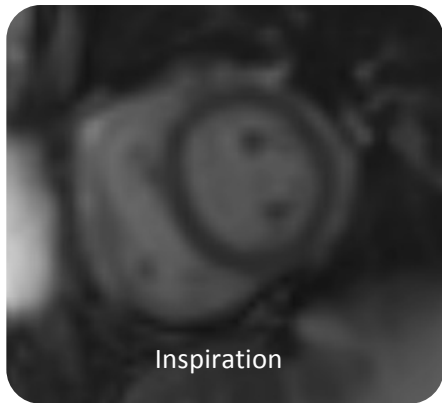


## Pericardial effusion

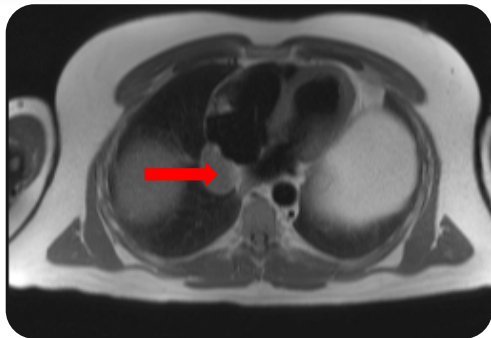
- CMR will show the size and location of a pericardial (red arrow) effusion
- CMR will also show the size and location of a pleural (blue arrow) effusion
- Cine CMR will show the effects of tamponade on the right atrium & ventricle



## Pericardial constriction: short axis view



In pericardial constriction, we see flattening of the interventricular septum during inspiration



## Pericardial cyst

- Transverse view ('HASTE' image)
- Incidental pericardial cyst (red arrow)
- Cyst is located adjacent to the right atrium

## How do we assess the pericardium with CMR?

- Describe pericardial appearance
  - Thickening/fat/(calcification)
- Assess any pericardial inflammation
  - ± Myocardial inflammation
- Assess any pericardial effusion
  - Presence and size
  - Tamponade
- Screen for evidence of constriction
- Identify any pericardial cysts/tumours

## Further reading

Cardiovascular magnetic resonance in pericardial diseases. *Journal of cardiovascular magnetic resonance* 2009; **11**: 14 [[click here to access online](#)]