



A lifetime of specialist care

Royal Brompton & Harefield **NHS**
NHS Foundation Trust

Patients and Relatives Information Evening 14/09/2016

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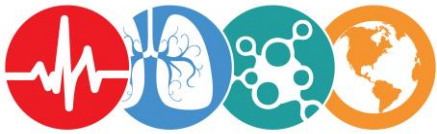
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 Alexander Jansons
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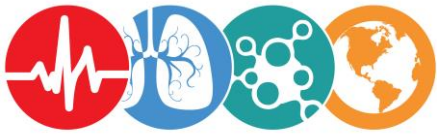




What is myocarditis?

- Myocarditis means inflammation of the myocardium
- **Myo** = Ancient Greek μῦς meaning **muscle**
-**card** = Latinized form of Greek kardia meaning **heart**
-**itis** = Suffix taken to indicate **inflammation** of a specific body part taken from Ancient Greek -ϊτις meaning 'pertaining to'





Myocarditis - What are the causes?

- Myocarditis can affect anyone and occur at any age.
- There are various causes; many are mild and some are serious.
- Causes include the following:
 - viruses
 - infections
 - drugs/toxins
 - radiation therapy
 - rare side-effect some medications
 - with certain inflammatory conditions



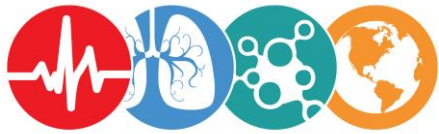


What are the signs and symptoms?

These can be variable but include:

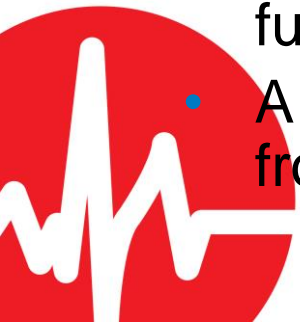
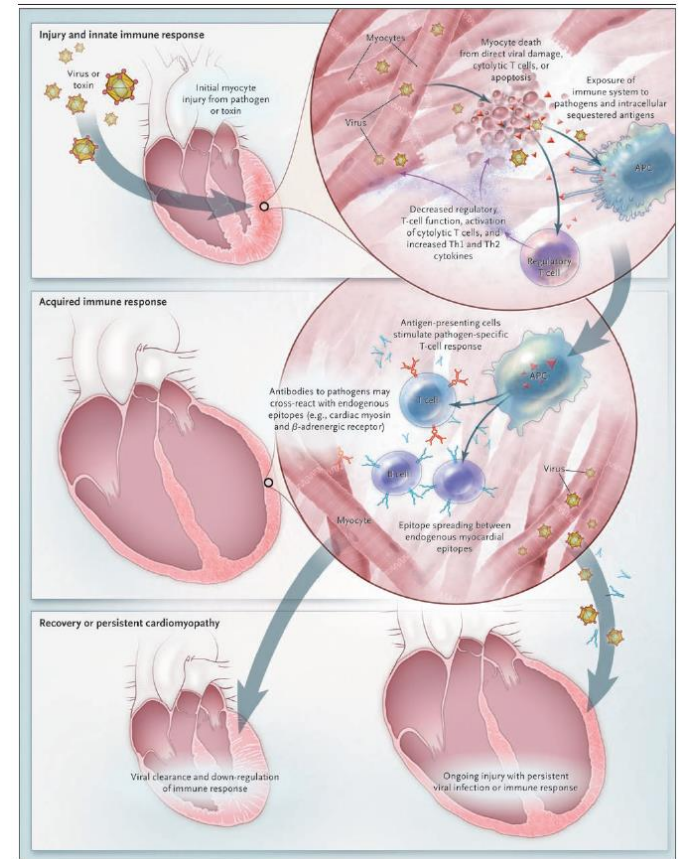
- chest pain
- fever (raised temperature),
- an irregular heartbeat
- tiredness
- shortness of breath

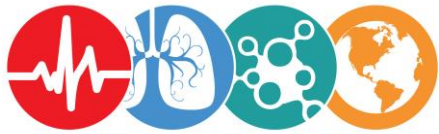




What happens in myocarditis?

1. Direct damage to heart muscle cells
 2. Release of cardiac muscle proteins into the blood stream
 3. An immune response to this injury
- Most patients make a good recovery
 - 1/3rd of patients - reduced heart function
 - A small number may die suddenly from an irregular heart rhythm

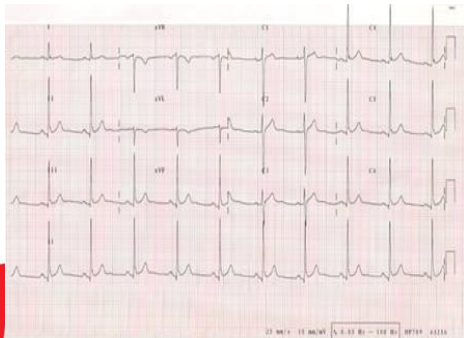




How is myocarditis diagnosed?

A number of tests are available including:

- a heart-tracing (ECG)
- blood tests for a protein leaked from the heart ('troponin')
- an ultrasound scan of the heart (echocardiogram)
- an MRI of the heart
- a biopsy of the heart (rare)



ECG



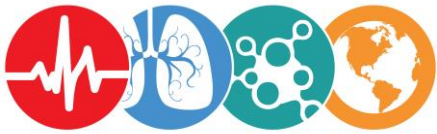
Troponin



Echo



Cardiac MRI



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Treatments can include:

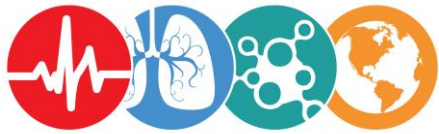
- Medicines – Depending on the situation, doctors can give medicines to:
 - Help you breathe better
 - Keep fluid from building up
 - Help keep the heart beating correctly
 - Stop blood clots from forming inside the body
 - Help with inflammation

- Rest – Talk to your doctor about how much activity is right for you.

- Oxygen – Some people need to breathe oxygen from a tank they carry with them.

- NOT drinking alcohol, or having no more than 1 drink a day





Things to avoid in the acute phase

- Nonsteroidal antiinflammatory drugs
- Heavy alcohol consumption
- Exercise
 - Especially if there is a fever, active infection or heart-failure
 - Restrict physical activity of athletes as well as non-athletes during the acute phase of myocarditis and for at least six months

This recommendation is based upon expert opinion.



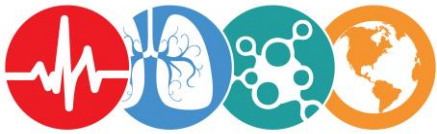


Coping strategies

Life management tips from Cardiomyopathy UK:

- Establish a good relationship with your nurse or doctor who will provide support
- Allow yourself to feel and express your feelings
- Educate yourself as much as possible about your condition and take an active role in your treatment
- Recognize the limits in your life and set realistic goals





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Psychological wellbeing

Resources

<http://www.anxieties.com/default/indexMain>

- Cardiomyopathy UK website:

<http://www.cardiomyopathy.org/cardiomyopathy-information-living-well/emotional-effects>

- Cardiomyopathy support nurse contact details:

0800 018 1024 supportnurse@cardiomyopathy.org

- Myocarditis Foundation Forum:

<http://www.myocarditisfoundation.org/forum-old/>





Diet advice

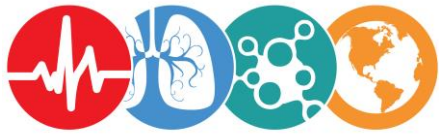
- DASH diet (Dietary Approaches to Stop Hypertension):

www.dashdiet.org

- Mediterranean diet

<http://www.nhs.uk/Livewell/Goodfood/Pages/what-is-a-Mediterranean-diet.aspx>





Recommendations for Competitive Athletes With Cardiovascular Abnormalities: Myocarditis

1. Before returning to competitive sports, athletes should undergo cardiac testing no less than 3 to 6 months after the initial illness

2. It is reasonable that athletes resume training and competition if all of the following criteria are met:
 - a. Heart function has returned to the normal range.
 - b. Serum markers of heart muscle injury, inflammation and heart failure have normalized.
 - c. Irregular heartbeats are absent on Holter monitor and graded exercise ECGs.



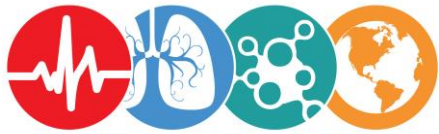


Recommendations continued:

3. Athletes with probable or definite myocarditis should not participate in competitive sports while active inflammation is present.

At present, it is unresolved whether resolution of myocarditis-related fibrosis (scarring) should be required to permit return to competitive sports.

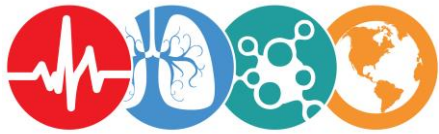




Our overall research aims

1. To improve the **early non-invasive diagnosis** of acute myocarditis
2. To improve the **risk stratification** and **prediction of outcomes**





For more information please attend our next information evening 2017

Further details to be confirmed on Alexander Jansons
Foundation Website

<http://alexanderjansonsfoundation.org/>

