

How  
Cardiomegaly  
Affected My  
Family's Life



# Objectives

01

- Listeners will be able to understand the definition and significance of Cardiomegaly

02

- Listeners will learn what the disease is and who it affects

03

- Listeners will understand treatment plans and how the disease can worsen without proper treatment

# Explanation of Disease Etiology



Cardiomegaly is an enlarged heart; is not a disease itself, but a symptom of other underlying conditions



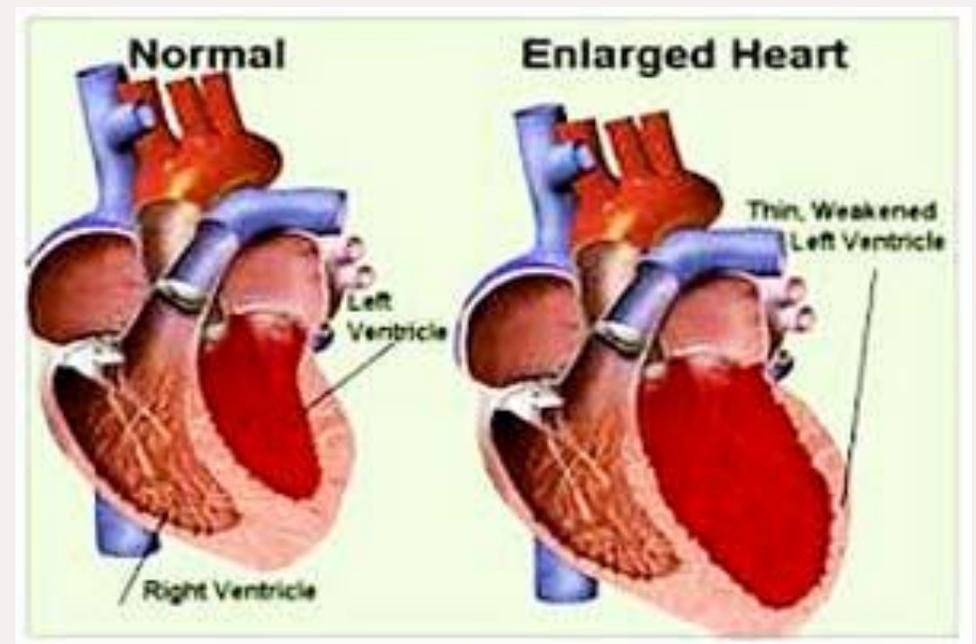
It occurs when the heart muscle becomes thicker or when the heart chambers become enlarged



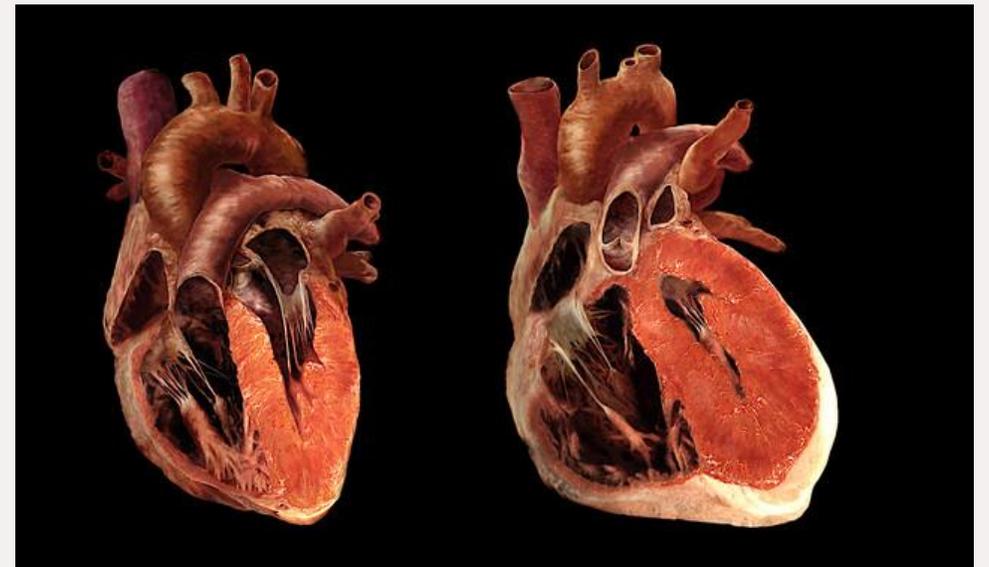
This can be caused by a variety of factors, like coronary artery disease, heart valve problems, high blood pressure, cardiomyopathy (Amin, 2022)

# Who it affects?

- 18 million people aged 20 and older are diagnosed with Cardiomegaly in the United States today (Cleveland Clinic, 2025)
- Affects both men and women the same
- Heart muscle diseases are directly passed down, which causes cardiomegaly over time

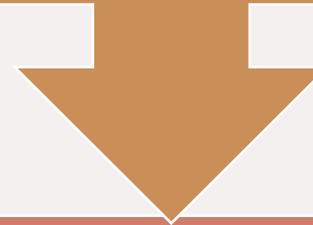


<https://storymd.com/journal/yj59pxnhnw-cardiomegaly>

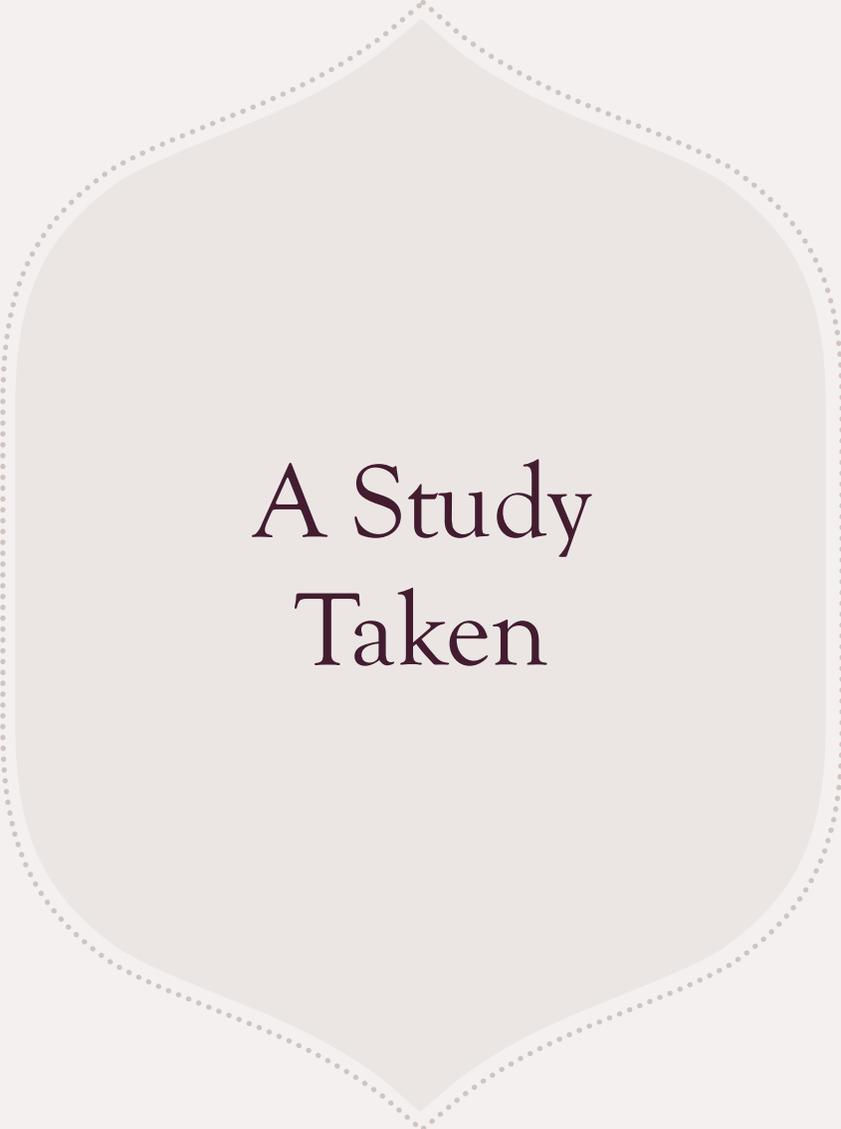


Explanation  
of  
Cardiomegaly  
Pathogenesis

Develops due to factors that make the heart work harder or cause damage to the heart muscles, which leads to hypertrophy(thickening) or dilation of the heart chambers



Cardiomegaly can progress to heart failure, the production of blood clots, and cardiac arrest if not treated in a timely manner

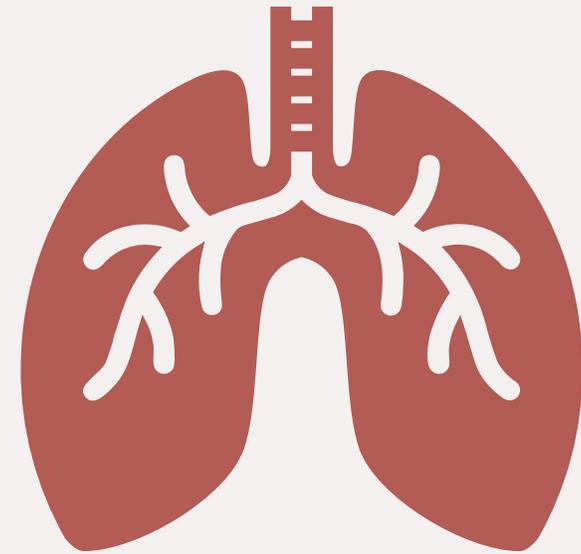


## A Study Taken

- A 10-year study of elderly individuals living everyday life found that 51% of those with undiagnosed cardiomegaly at the start of the study died, compared to 33% of those with a diagnosis.
- This suggests a significantly poorer prognosis for individuals with undiagnosed or untreated cardiomegaly(Mayo Clinic, 2024).

# Patients Symptoms & Clinical Signs

- Chief complaint: SOB
- Swelling (Legs, Feet)
- Fatigue
- Heart Palpitations
- Normally, patients who come into a clinic or hospital have SOB or cough and have no idea they have cardiomegaly or an undiagnosed heart condition
- Cardiomegaly is normally found by accident when a patient comes in and gets a chest X-ray



# How It Affected My Family

- My grandpa was diagnosed with cardiomegaly at the beginning of 2021
- At this time, I didn't know what that meant or its significance. Many overlook this disease since it is considered an enlarged heart where there is something going on in the heart, but the exact cause is still unknown and undiagnostic.
- Later that year, he went into the hospital due to chest tightening and SOB
- The hospital took a chest X-ray and told him due to having an enlarged heart, these were common symptoms, and there was nothing more they could do
- He was sent home, and later that night, he passed away from a heart attack due to a clogged artery
- There are several ways this could have been prevented, such as surgery or additional scanning to properly diagnose but he was turned away when wanting additional work done

# Imaging Modalities For Diagnosis



Chest X-ray is the first imaging modality used to help diagnose



Then an Echocardiogram to make a diagnosis



Once confirmed, a CT scan can be performed to get the exact size and structure

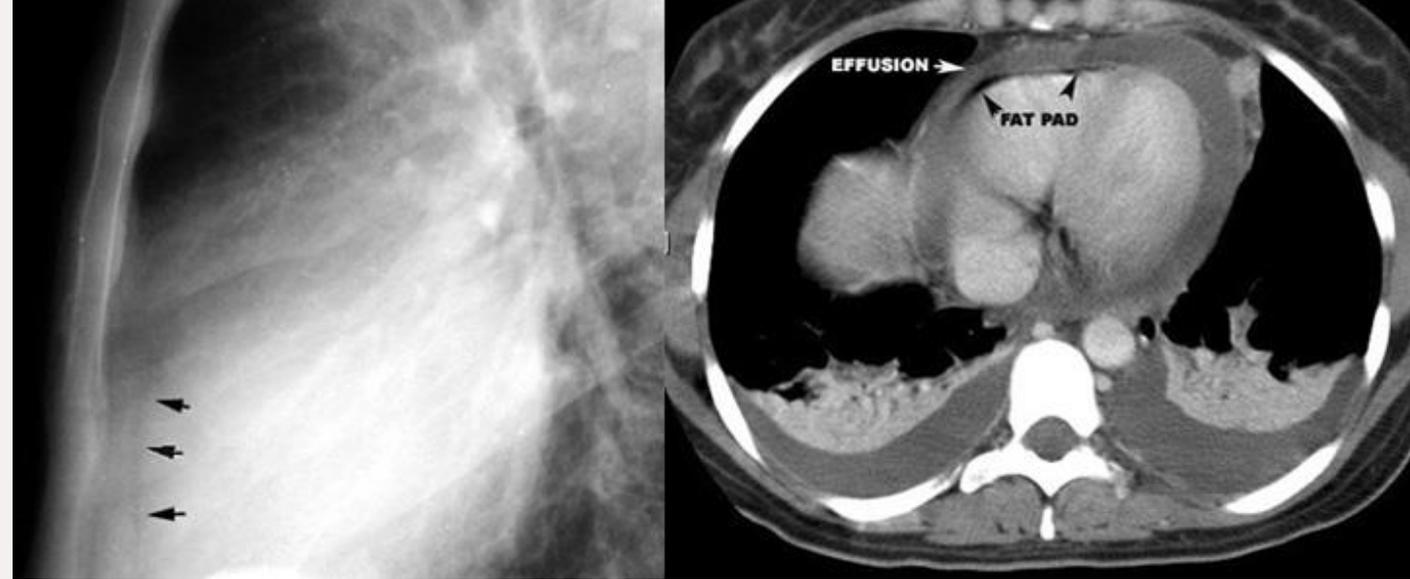


An MRI can be done after to see the surrounding heart vessels

# Imaging

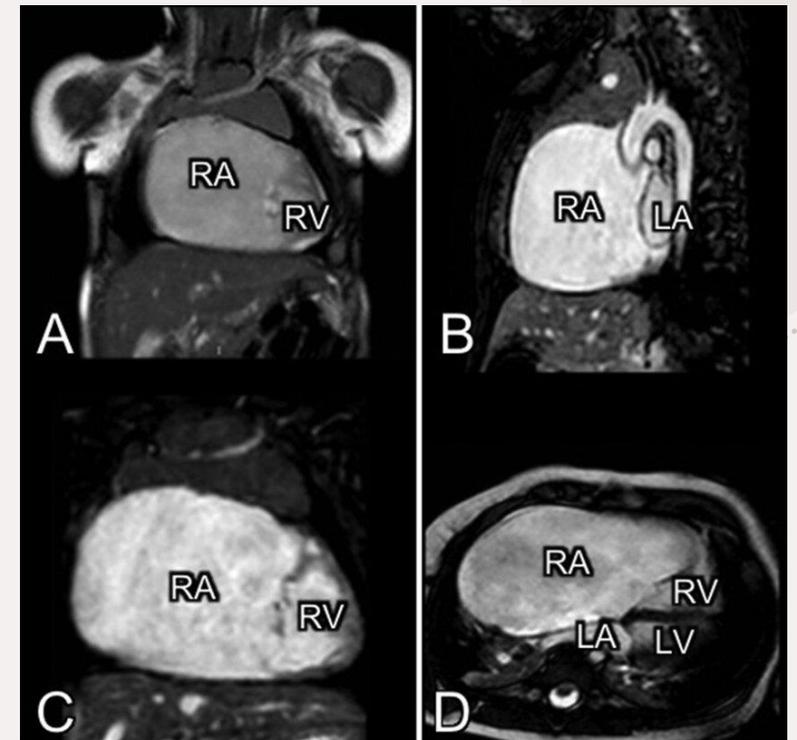


Chest X-ray-  
ray <https://radiopaedia.org/cases/cardiomegaly-3>



## CT Scan

[https://www.stitch.luc.edu/lumen/meded/radio/curriculum/medicine/pericardial\\_effusion2.htm](https://www.stitch.luc.edu/lumen/meded/radio/curriculum/medicine/pericardial_effusion2.htm)

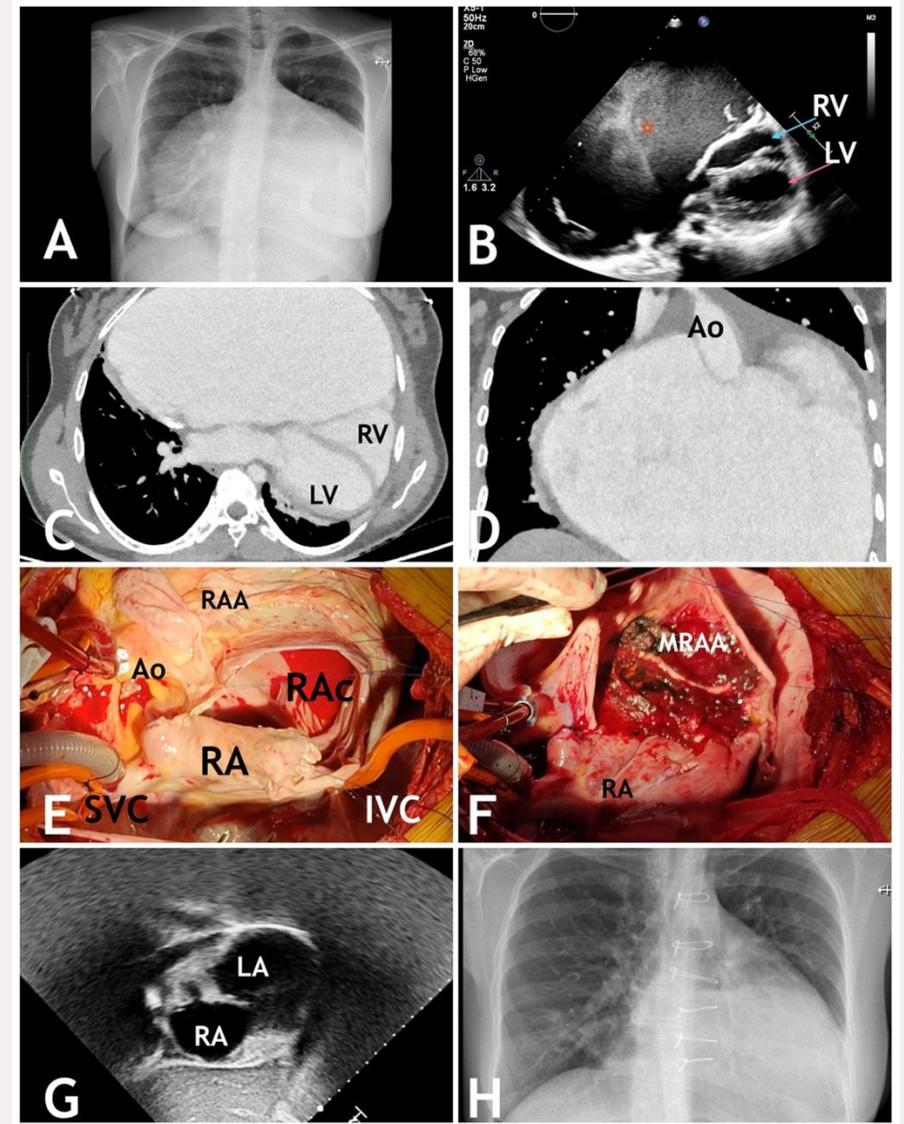


## MRI

[https://www.researchgate.net/figure/MRI-at-6months-Cardiomegaly-with-a-normal-size-of-the-right-ventricle-A-C-show-a\\_fig2\\_354055260](https://www.researchgate.net/figure/MRI-at-6months-Cardiomegaly-with-a-normal-size-of-the-right-ventricle-A-C-show-a_fig2_354055260)

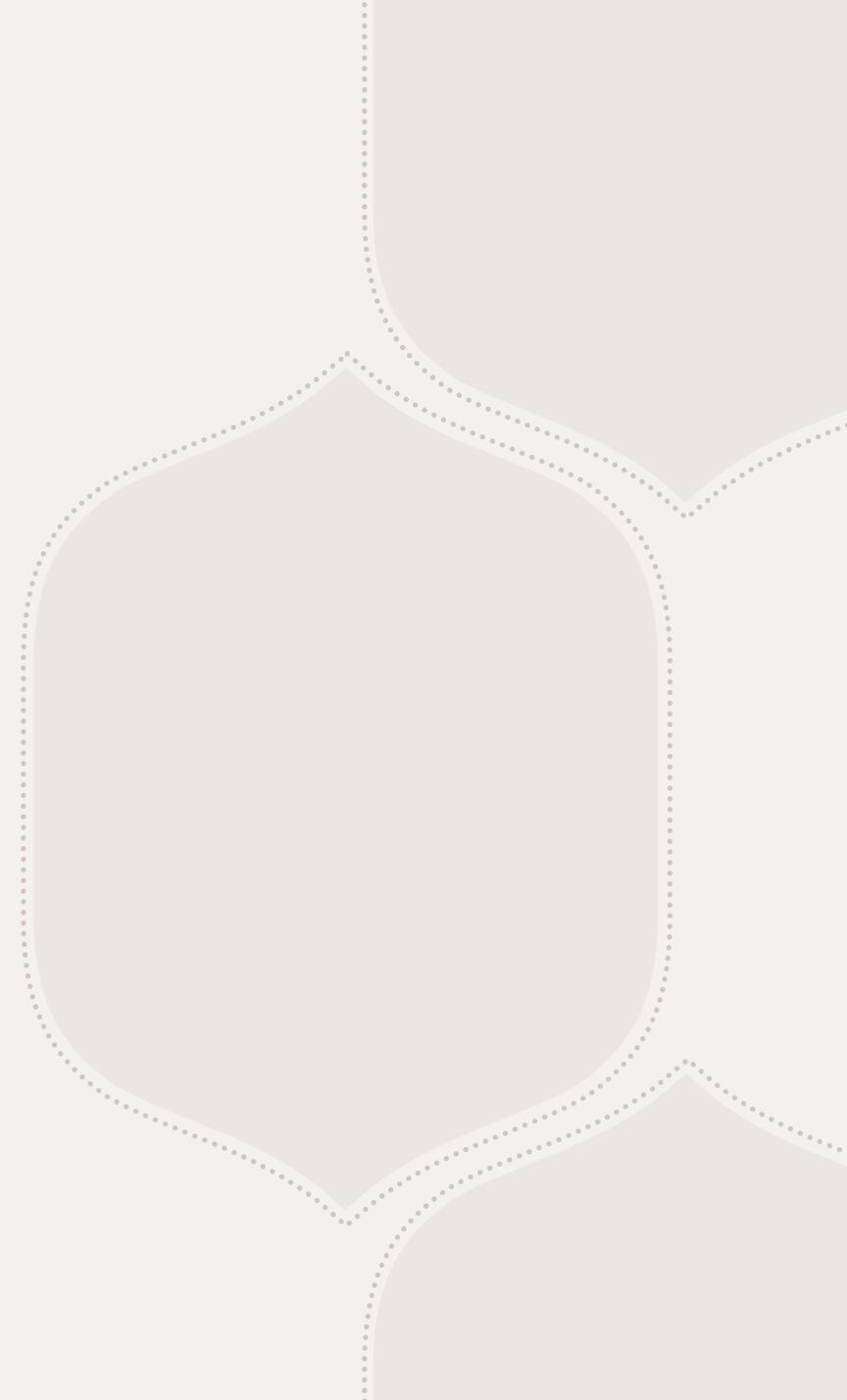
# How Does Cardiomegaly Manifest Itself?

- Cardiomegaly is very hereditary and normally passed down to the next generation
- Even though it's passed down, it is not inflamed until there is strain on heart muscles or overworking through large amounts of activity on the heart



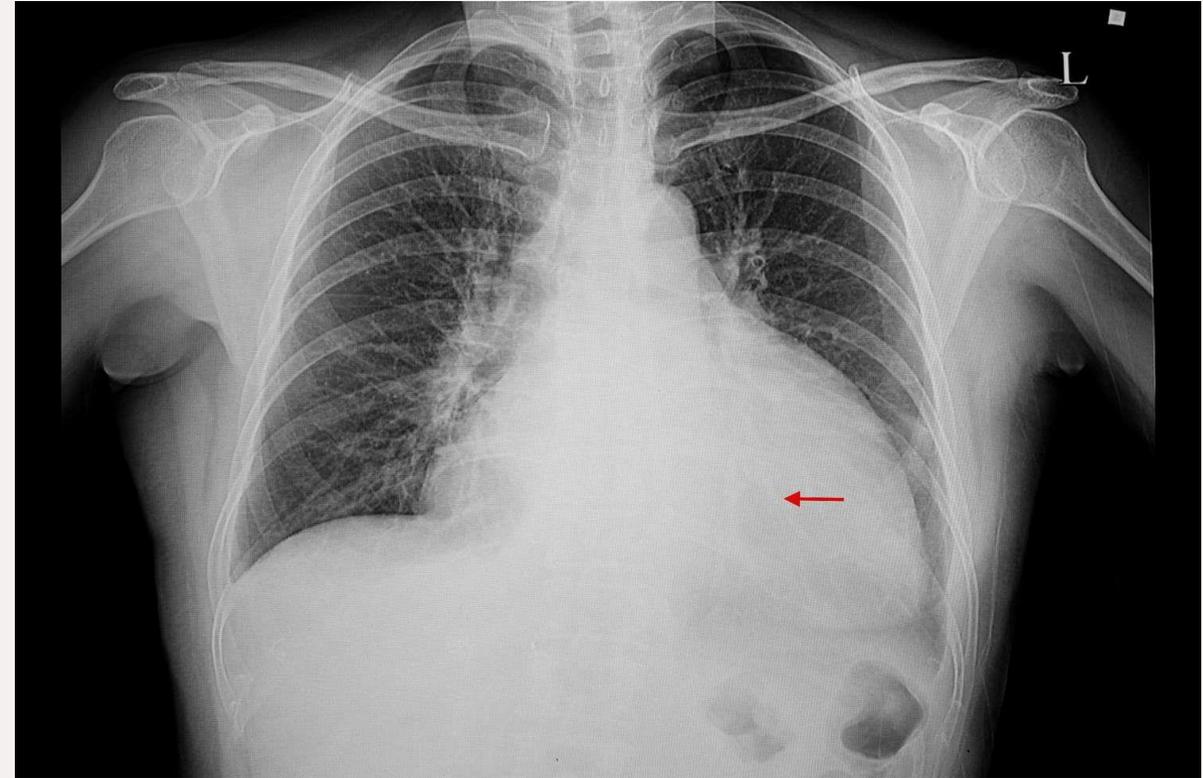
# Cardiomegaly Prognosis & Treatment

- Prognosis varies greatly depending on patient's conditions, severity, and age
- Ex. A 62-year-old patient with dilated cardiomegaly, which led to heart failure carries a guarded(unpredictable) prognosis, suggesting a 5-year mortality rate around 50%, meaning 50% of patients with this condition, died within 5 years(Amin, 2022)
- Treatment focuses on addressing the underlying cause and managing symptoms. This may involve medications, lifestyle changes, and in some cases, surgical procedures.



# Role As A Medical Imaging Worker

- When a patient comes in with SOB or fatigue, they are more than likely always going to get a chest X-ray
- Cardiomegaly is accidentally found due to these chief complaints and getting a chest X-ray
- For an imaging worker, it is very important to get a good image of the lung field to see the whole heart shadow and if it's pushing into the lungs, but patients who have cardiomegaly normally have other underlining conditions making it hard to take in a big breath



<https://www.verywellhealth.com/symptoms-of-an-enlarged-heart-5181653>

# Resources

- Amin, H. (2022, November 20). *Cardiomegaly*. StatPearls [Internet]. <https://www.ncbi.nlm.nih.gov/books/NBK542296/>
- Amin, H. (2022a, November 20). *Cardiomegaly*. StatPearls [Internet]. <https://www.ncbi.nlm.nih.gov/sites/books/NBK542296/#:~:text=Despite%20the%20advent%20of%20new,mortality%20is%20in%20young%20people.>
- *Enlarged heart (cardiomegaly): What it is, symptoms & treatment*. Cleveland Clinic. (2025, June 2). <https://my.clevelandclinic.org/health/diseases/21490-enlarged-heart-cardiomegaly>
- Mayo Foundation for Medical Education and Research. (2024). *Enlarged heart*. Mayo Clinic. <https://www.mayoclinic.org/diseases-conditions/enlarged-heart/symptoms-causes/syc-20355436>

# Image Resources

- <https://www.verywellhealth.com/symptoms-of-an-enlarged-heart-5181653>
- [https://www.heartlungcirc.org/article/S1443-9506\(23\)04225-7/abstract](https://www.heartlungcirc.org/article/S1443-9506(23)04225-7/abstract)
- ray <https://radiopaedia.org/cases/cardiomegaly-3>
- [https://www.stitch.luc.edu/lumen/meded/radio/curriculum/medicine/pericardial\\_effusion2.htm](https://www.stitch.luc.edu/lumen/meded/radio/curriculum/medicine/pericardial_effusion2.htm)
- [https://www.researchgate.net/figure/MRI-at-6months-Cardiomegaly-with-a-normal-size-of-the-right-ventricle-A-C-show-a\\_fig2\\_354055260](https://www.researchgate.net/figure/MRI-at-6months-Cardiomegaly-with-a-normal-size-of-the-right-ventricle-A-C-show-a_fig2_354055260)
- <https://storymd.com/journal/yj59pxnhnw-cardiomegaly>