

GIANT CELL MYOCARDITIS

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Klein.

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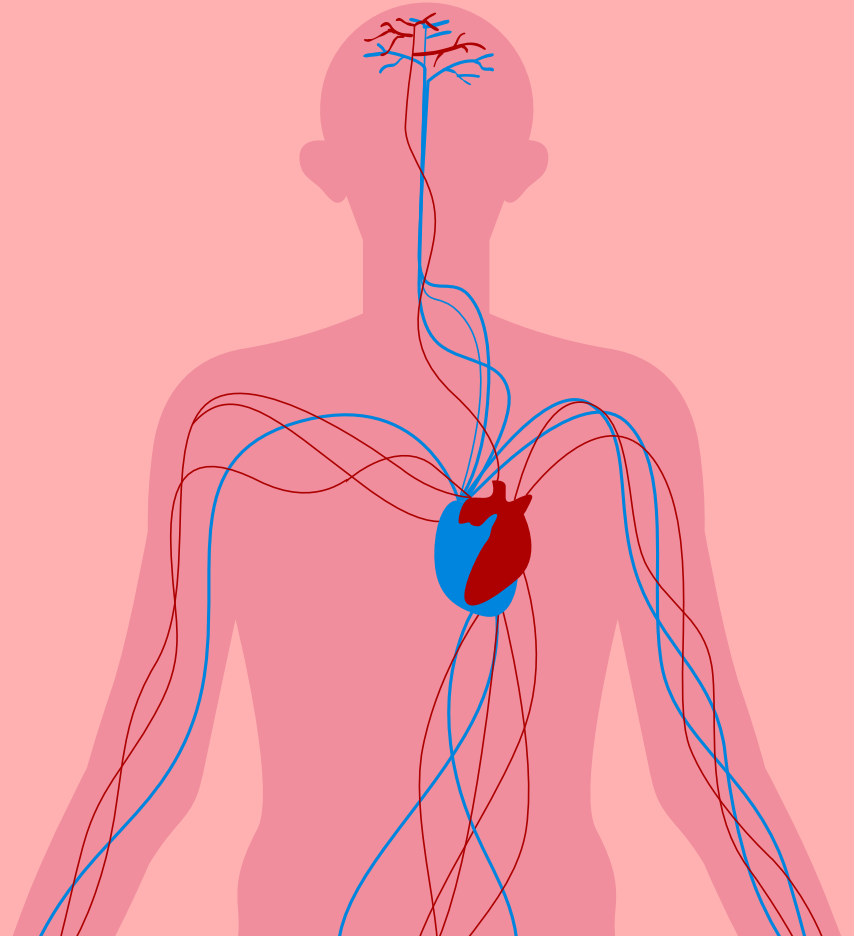
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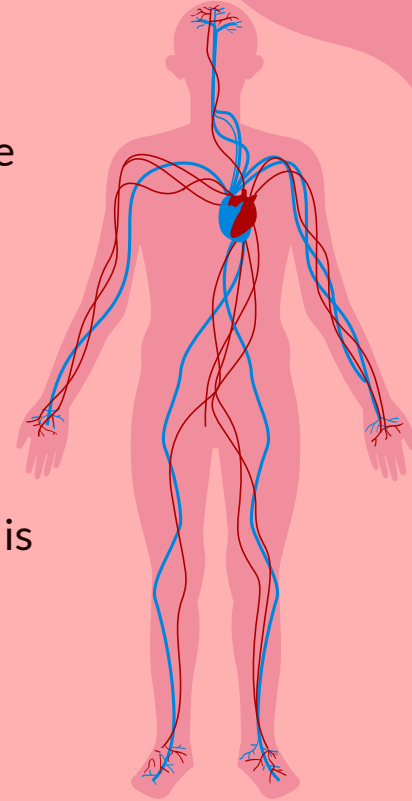
01

INTRODUCTION & BACKGROUND



Background: AUTOIMMUNE DISEASES

- A broad range of related diseases characterized by a dysregulation on the immune cells.
- When the body's immune system attacks autoantigens it can result in inappropriate inflammations and multi tissue damages.
- Those are still a very poorly understood group of diseases.
- Many of these diseases are difficult, many times impossible, to cure. This is because the focus of the immune response (self antigens) cannot be eliminated.



AUTOIMMUNE DISEASES

- Although the causes are still very poorly understood, it is believed that these diseases are consequences of:
 - Genetic factors
 - Infections
 - Endocrine disorders
 - Environmental factors
- Caused by the death of T cells and/or B cells
- Either systemic or organ-specific:
 - Systemic: affect multiple organs throughout the body.
 - Organ-specific: a particular organ or tissue is targeted

T and B cells

A type of white cells called lymphocytes

AUTOIMMUNE DISEASES: Cell death

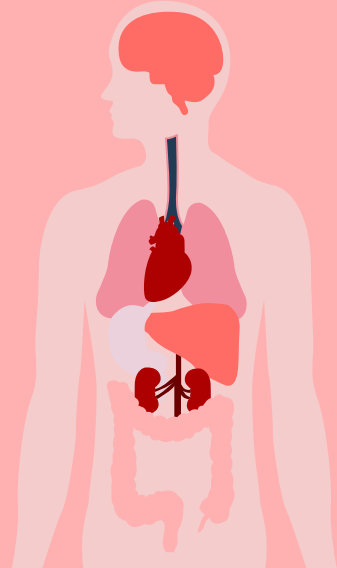
“All individuals are tolerant of their own potentially antigenic substances, and failure of self tolerance is the fundamental cause of autoimmunity.”

Central tolerance
=
Apoptosis

Peripheral Tolerance
=
Killed or Shut off

SELF TOLERANCE

the ability of the immune system to recognize self-produced antigens as a non-threat



COMMON TYPES OF AUTOIMMUNE DISEASES



LUPUS

Attacks kidneys, lungs, joints, skin.



RHEUMATOID ARTHRITIS

Lungs, heart, kidneys, blood, eyes.



SJÖGREN SYNDROME

Eyes and mouth, skin, nervous system, joints, respiratory system.



TYPE 1 DIABETES

Pancreas.



CELIAC DISEASE

Small intestine.



GRAVES DISEASE

Thyroid gland.

INTRODUCTION: What is GCM?

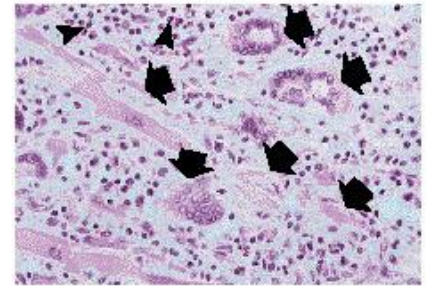
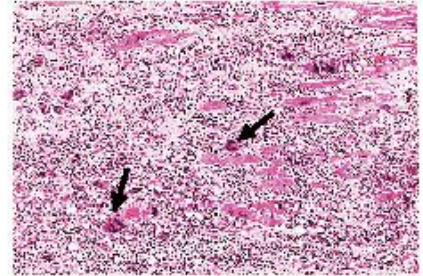
“Giant-cell myocarditis is a disease of relatively young, predominantly healthy adults. Patients usually die of heart failure and ventricular arrhythmia unless cardiac transplantation is performed. Despite the possibility of fatal disease recurrence, transplantation is the treatment of choice for most patients.”

INTRODUCTION: Case Study

- Involved 63 patients (33 men and 30 women): average age of 42.6.
- Ethnic breakdown: 88% white, 5% black, 5% southeast asian or Indian, 2% Middle Eastern.
- Initial symptoms: congestive heart failure, acute myocardial infarction.
 - 19% of patients had associated autoimmune disorders = their rate of survival was worse.
- Rate of death or cardiac transplantation was 89%
- Median survival was 5.5 months

Treatment options:

- Corticosteroids + Cyclosporine, Azathioprine or both = 22 patients
 - Those who completed the treatment survived for an average of 12.3 months
- No immunosuppressive therapy: 30 patients; 3.0 months
- Heart transplant: 34 patients
 - 9 had giant cell infiltrate in the transplanted heart
 - 1 died of recurrent giant cell myocarditis

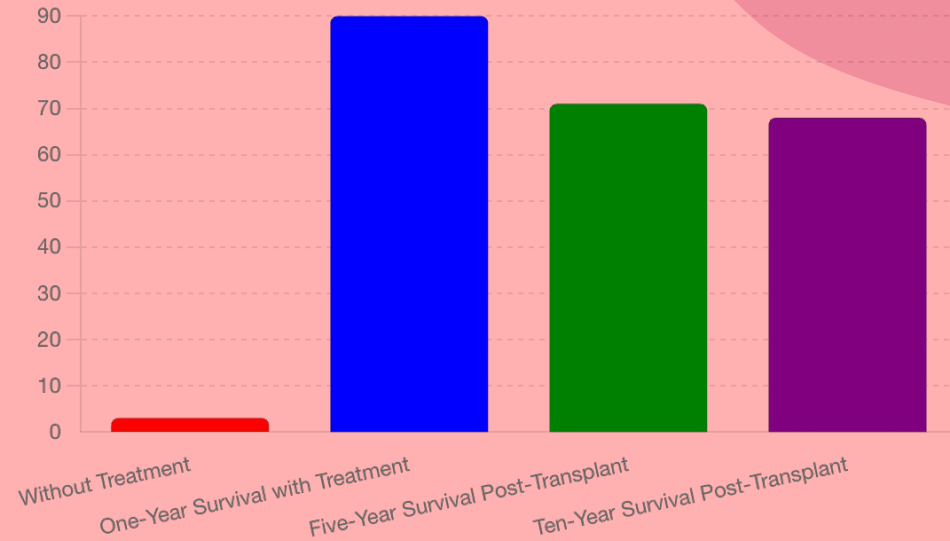


SURVIVAL

Word Key:

Immunosuppressive therapy: use of medications to suppress the immune system's activity

- Without treatment: Median survival: Approximately 3 months from symptom onset
- With immunosuppressive therapy; One year survival: Around 90% with early and aggressive treatment
- Post heart transplant:
 - 5 year survival: Approximately 71%
 - 10 year survival: Approximately 68%



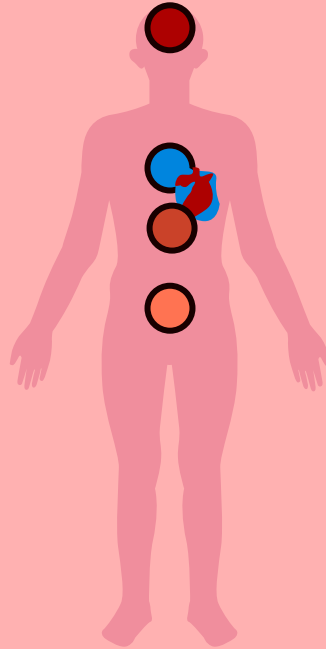
SYMPTOMS IN THE BODY

**ACUTE
MYOCARDIAL
INFARCTION**

01

**COMPLETE
HEART BLOCK**

02



03

**VENTRICULAR
TACHYCARDIA &
BRADYCARDIA**

04

& MINORS:

- Chest pain
- Extreme tiredness
- Swollen ankles

DISEASE STAGES



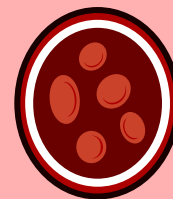
Initial stage

Symptom onset, early symptoms



Progressive stage

Worsening symptoms, heart failure



Advanced stage

Severe arrhythmias, cardiogenic shock, heart block



End stage

Refractory heart failure, need for transplant



Post transplant stage

Recovery and monitoring, long term management

**The End
Thank you!**

CARDIOVASCULAR PATHOLOGY



MERCURY

It's the closest planet
to the Sun



JUPITER

Jupiter is the biggest
planet of them all



NEPTUNE

It's the farthest planet
from the Sun



SATURN

Saturn is composed
mostly of hydrogen



MARS

Despite being red,
Mars is a cold place

CAUSES OF HEART DISEASE

1,200

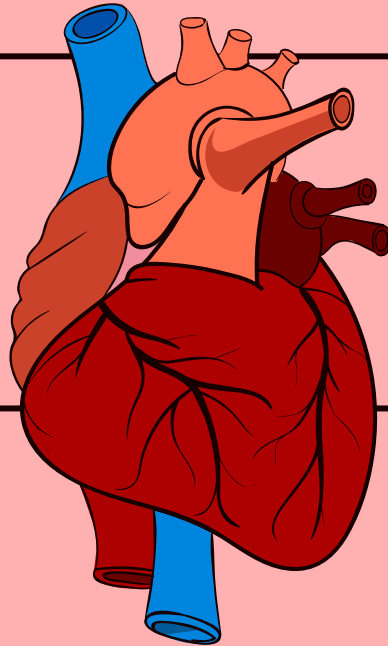
SMOKING

Mercury is the smallest planet

2,400

GENETICS

Mars is actually a cold place



3,600

OBESITY

Jupiter is a gas giant planet

4,800

DIABETES

Neptune is very far from the Sun

RISK FACTORS

1,000

PRESSURE

Mercury is small

1,050

CHOLESTEROL

Venus is very hot

1,100

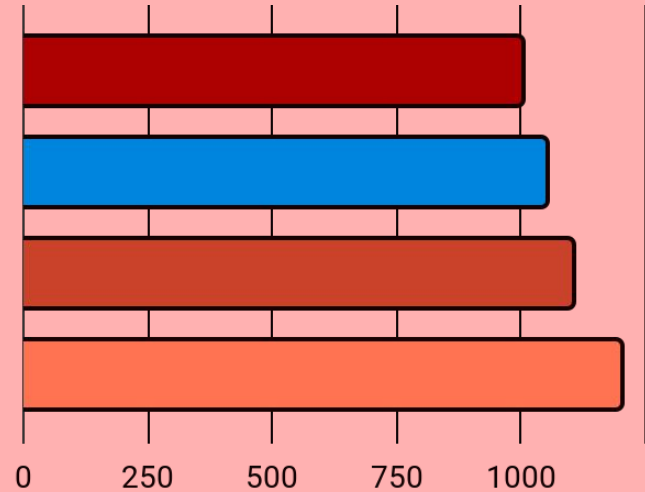
GENDER

Mars is actually cold

1,200

GENETICS

Earth is where we live



Follow the link in the graph to modify its data and then paste the new one here.

For more info, click here

489,300

Big numbers catch your audience's attention

24,000

Jupiter is a gas giant and the biggest planet



33,300

Saturn is a gas giant planet and has several rings



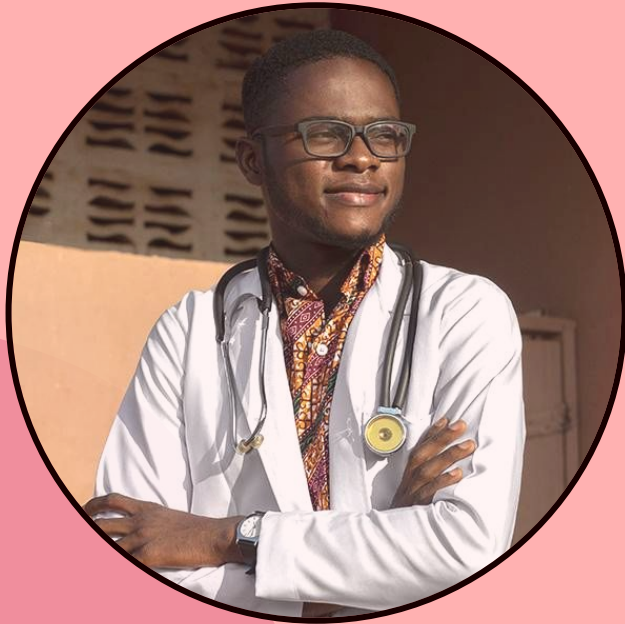
38,600

Neptune is the farthest planet from the Sun



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AWESOME WORDS



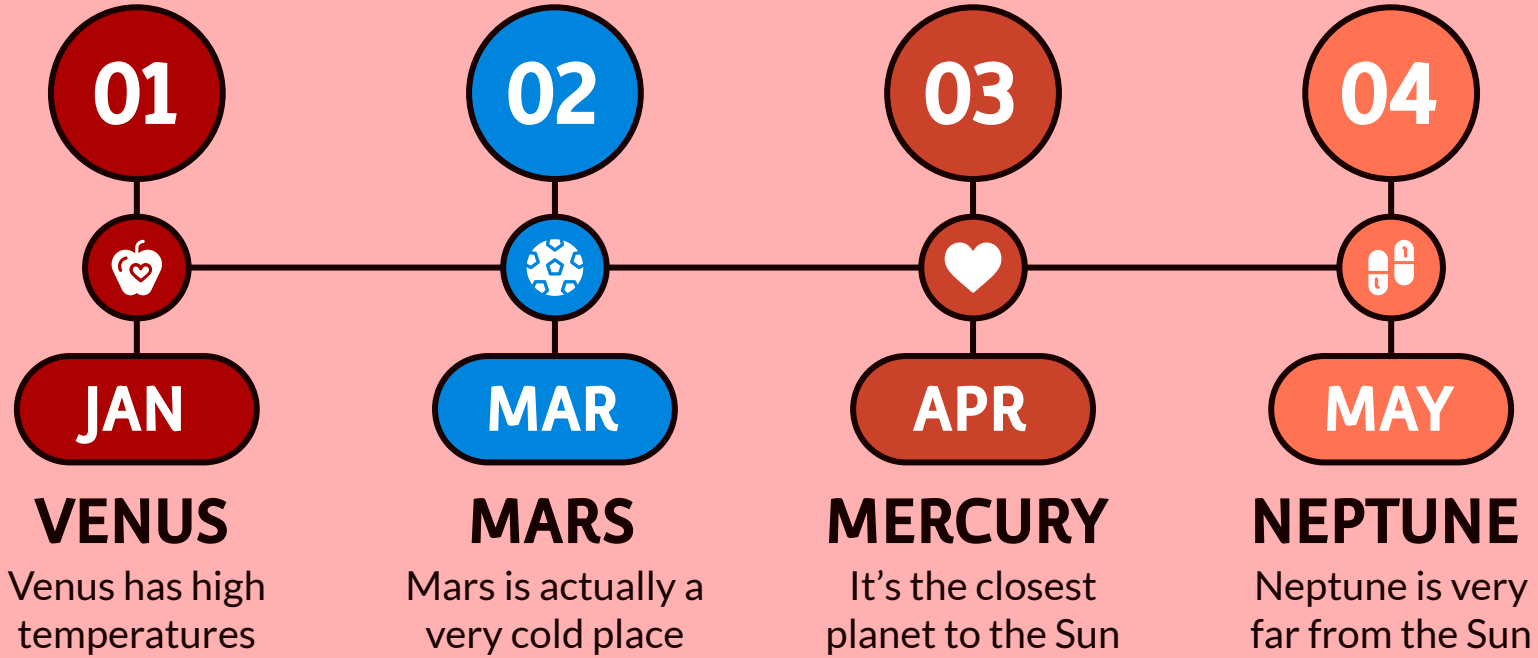
“This is a quote. Words full of wisdom that someone important said and can make the reader get inspired.”

—SOMEONE FAMOUS

**A PICTURE IS WORTH A
THOUSANDS WORDS**



HEART ATTACK PREVENTION



DISEASE TREATMENT

01

INITIAL STAGE

MEDICINE

Mercury is the smallest planet

02

INTERMEDIATE STAGE

MEDICINE

Venus has very high temperatures

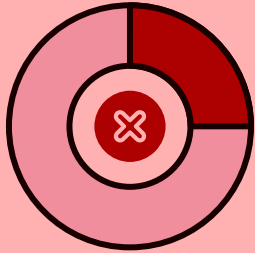
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ADVANCED STAGE

MEDICINE

Earth is the planet where we all live

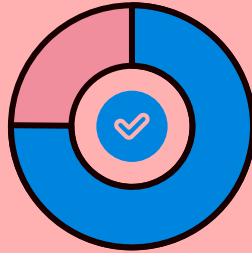
RECOMMENDATIONS



25%

MERCURY

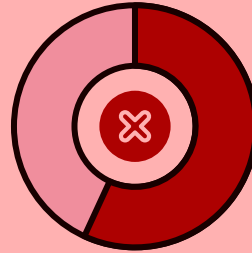
It's the closest planet to the Sun



75%

SATURN

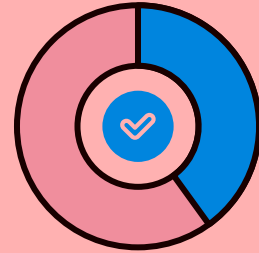
Saturn is the only planet with rings



65%

MARS

Despite being red, Mars is cold



35%

VENUS

Venus has very high temperatures

PREVALENCE

2,300

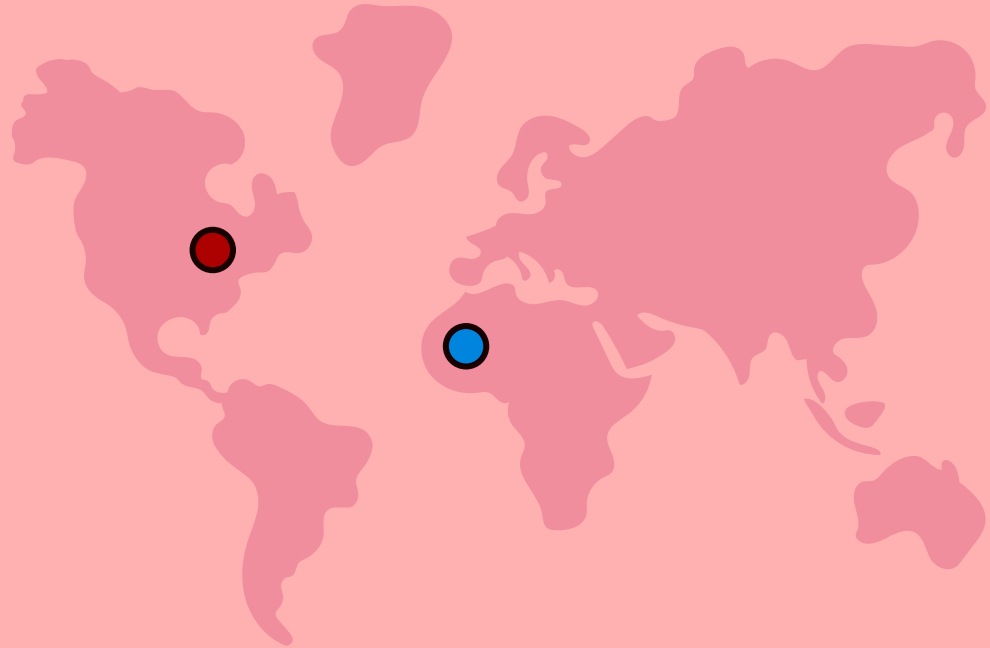
JUPITER

Jupiter is a gas
giant planet

1,500

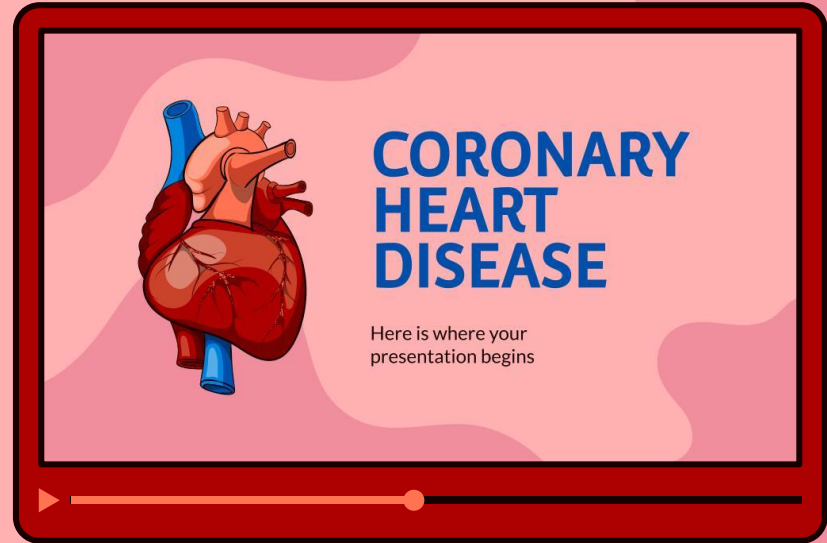
NEPTUNE

Neptune is very
far from the Sun



WATCH OUR CONCLUSION S

You can replace the image on the screen with your own work. Just right-click on it and select “Replace image”



OUR TEAM

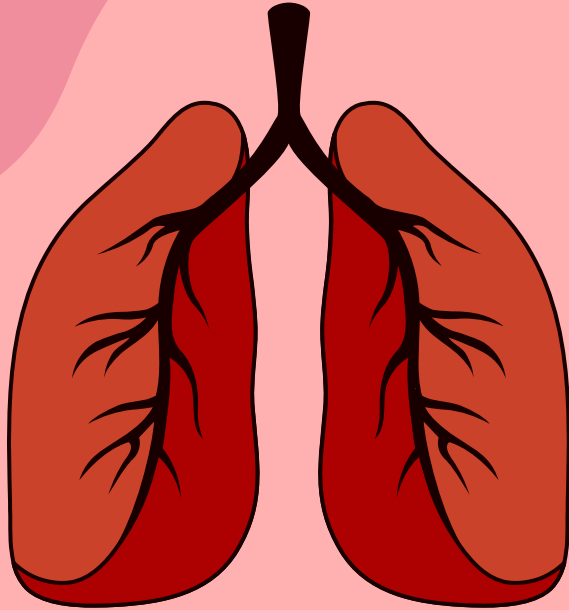
DOCTORS

- Liam Smith
- Olivia Johnson
- Noah Miller
- Emma Brown
- John Freeman
- Simone Doe

NURSES

- Oliver Jones
- Ava Williams
- Elijah Sofer
- Charlotte Garcia
- Gregory Smith
- Samantha Davis





THANKS!

Do you have any questions?

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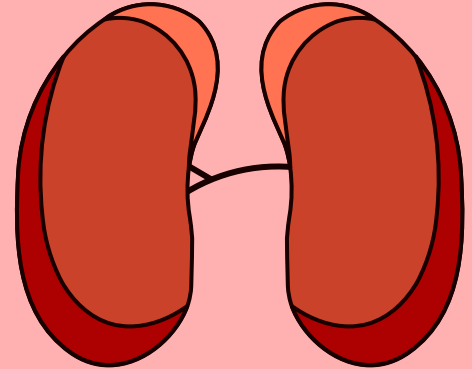
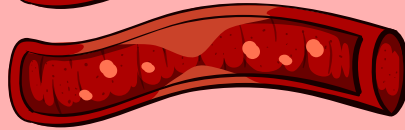
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ALTERNATIVE RESOURCES

Here's an assortment of alternative resources within the same style of this template



Medium shot man with chest pain
Human hand with stethoscope checking respiration of person

RESOURCES

Did you like the resources? Get them for free at our other websites

VECTORS

- Covid-19 test landing page
- Type of coronavirus test
- Abstract geometric shapes
- Circulatory system infographic
- Atherosclerosis health graphic
- Gradient blood infographic

PHOTOS

- Africa humanitarian aid doctor getting ready for work
- Stethoscope and realistic heart
- Surgeon with a heart
- Africa humanitarian aid doctors

Evaluation

- We learnt that GCM is an autoimmune disease caused by giant cell under possible inflammatory response of the human body
- SLE, IRIS and other autoimmune diseases could coexist with GCM, indicating correlation between the cause of other kinds of autoimmune disease and GCM
- The articles prove the correlation between GCM and inflammatory syndrome/ autoimmune responses do exist
- This could suggest that the GCM can be caused by the inflammatory syndrome and dysregulation of cytokine factors