

# Mitochondrial Disorders



Jennifer Yang, MD

Maria Augusta Montenegro, MD, PhD

Mitochondrial Disorders

First Edition, 2024

Text Copyright by Maria A. Montenegro & Jennifer Yang

Illustrations Copyright by Maria C. Montenegro

Department of Neurosciences

Division of Pediatric Neurology

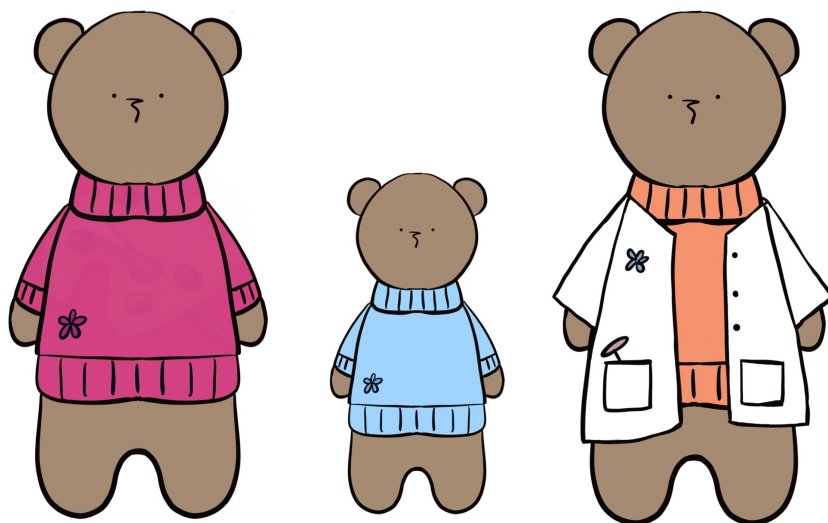
Rady Children's Hospital / UCSD



This is a work of fiction. Names, characters, places and incidents are either products of the author's imagination or, if real, are used fictitiously.

All rights reserved.

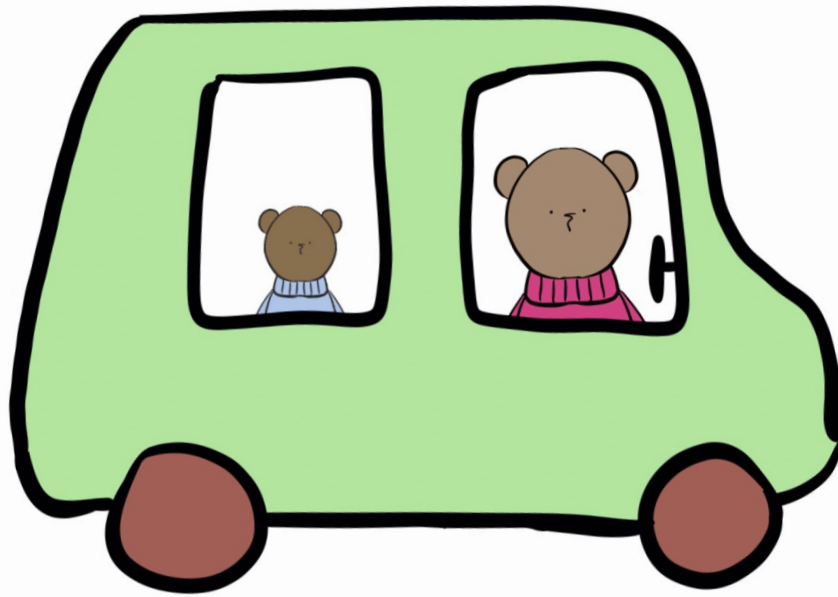
No part of this book may be used or reproduced in any means, electronic or mechanical, including any information storage and retrieval system, without written permission.



Hello! I like sports and music. After school I play with my friends.



Today I went to the doctor for a check up because last month I was admitted to the hospital.



That's right, I had to sleep at the hospital!

When I was at the hospital, I was really sick and needed many tests. Later the doctors found out that I have a mitochondrial disease.



Never heard of it?

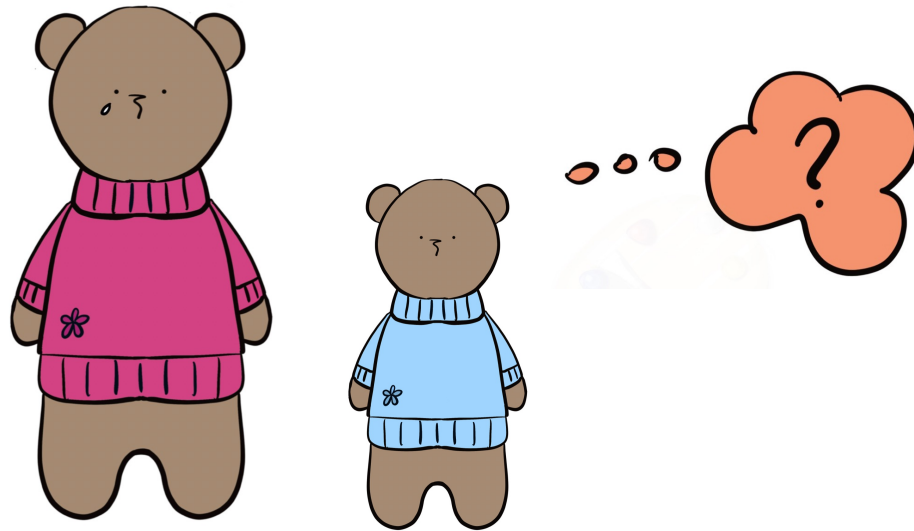
Me neither! But now I know all about it 😊.

This was my first follow-up visit, I was feeling okay, but I could tell that my parents were a little scared.



Sometimes adults forget to explain to us what is going on. They usually do that because they are trying to protect us.

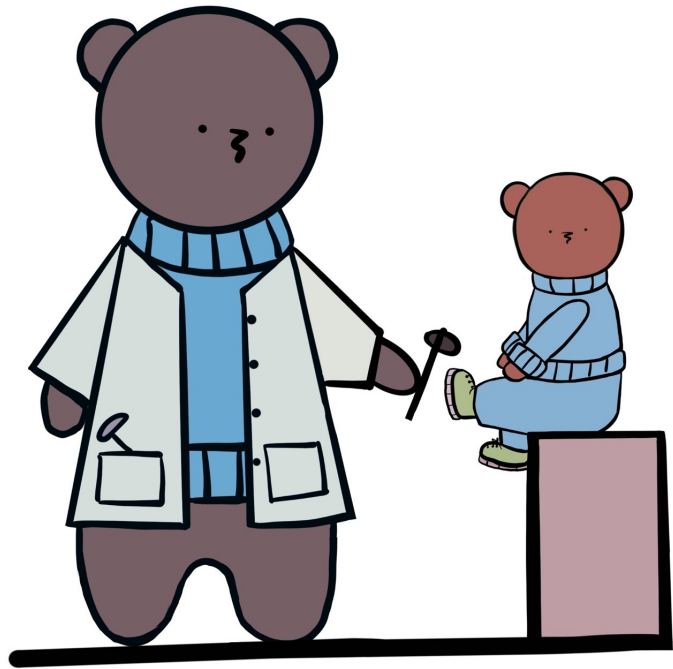
What they don't know is that we always know they are hiding something.



Later I found out that parents are always scared when their children go to the doctor.

At the clinic, there was a very nice doctor.  
She listened to my heart, checked my belly  
and hit my knee with a little hammer.

It was actually  
funny because  
when she hit my  
knee, my leg kicks  
the air!

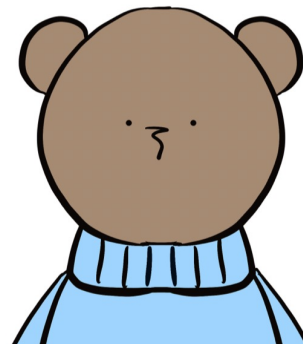
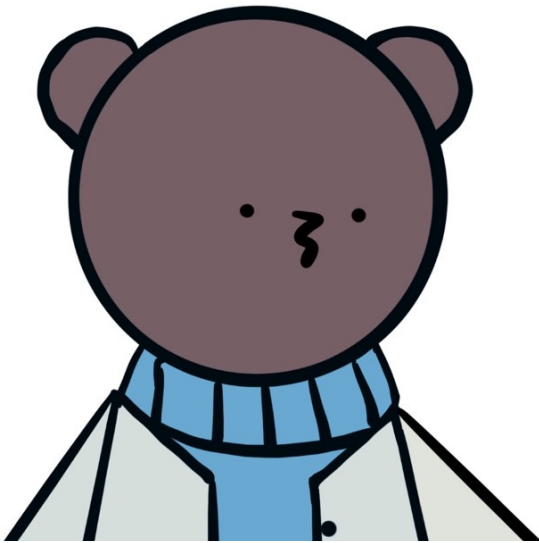




When she finished examining me, she asked:

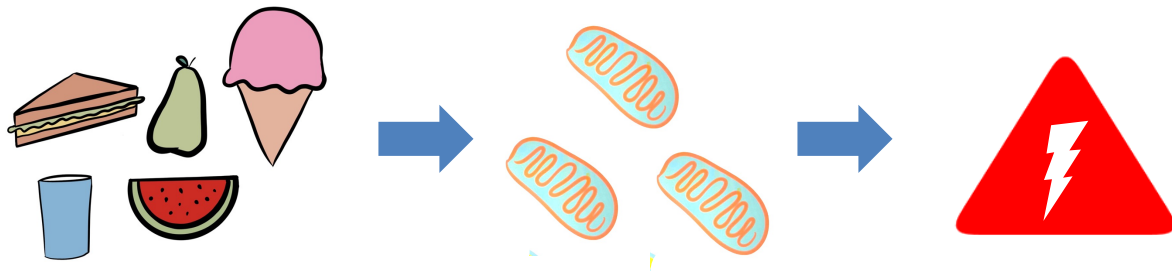
"Do you know what is a mitochondrial disease?"

I said I didn't know, but I wanted to know it.

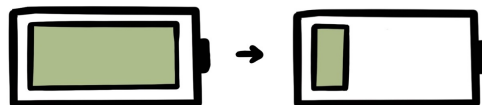


The nice doctor explained that:

- Mitochondrias are the powerhouse of our cells. Like batteries!
- They use the nutrients from our food to produce the energy our body needs.
- Each cell has thousands of mitochondria.



- In mitochondrial disease, our batteries don't work as well.
- That's why our bodies don't feel good.



She told me:

- There are many different mitochondrial diseases, each with different symptoms.
- There are many kids with mitochondrial disease.
- They might have trouble with:
  - Walking or running
  - Seeing things well
  - Feeling tired easily
  - Stomach upset or going to the bathroom

Hmm...

Some of this sounds just like me!

Wow! I guess I am not alone.

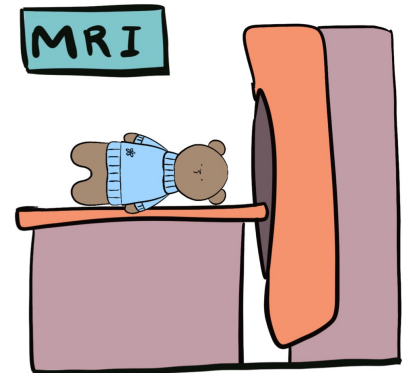
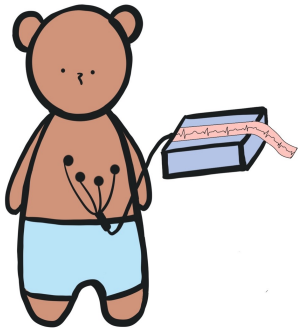
So I asked her:

"What do I need to do to stay healthy? I don't like sleeping in the hospital."

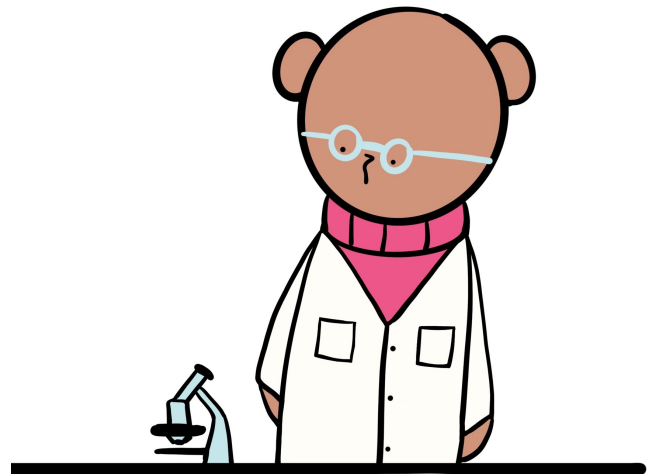
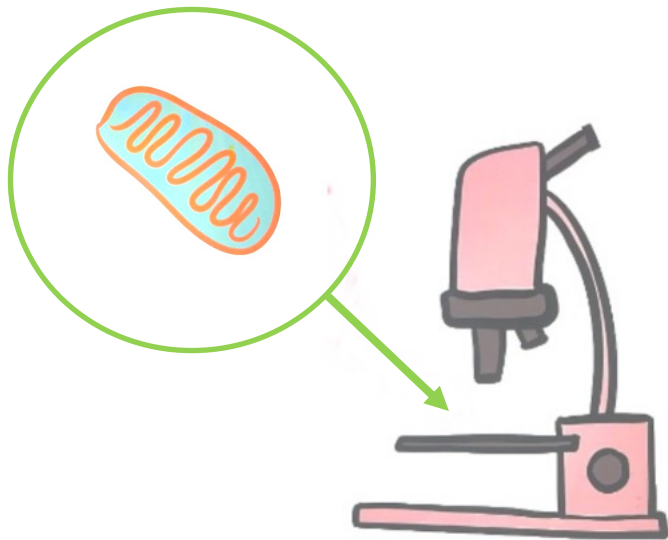


She told me:

- Eat well and don't skip meals.
- Stay active but take a break if you feel tired.
- Take vitamins and other medicines your doctor gives you.
- You may need regular tests to make sure you are okay.

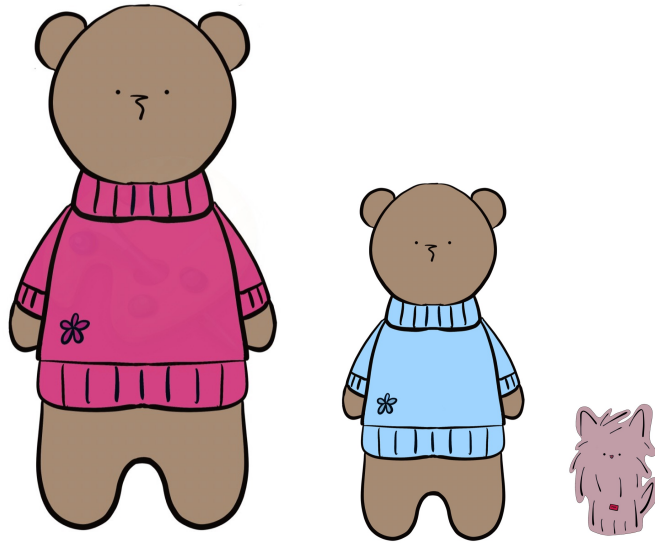


There is still a lot we don't know about mitochondrial diseases. Many scientists are working hard to learn more about how to treat it.



Then she explained that I will have regular visits to the clinic to make sure I am fine.

But the most important thing is that I still like sports and music, and after school I can play with my friends.



The End

