## NEUROMODULATORY DEVICES FOR EPILEPSY



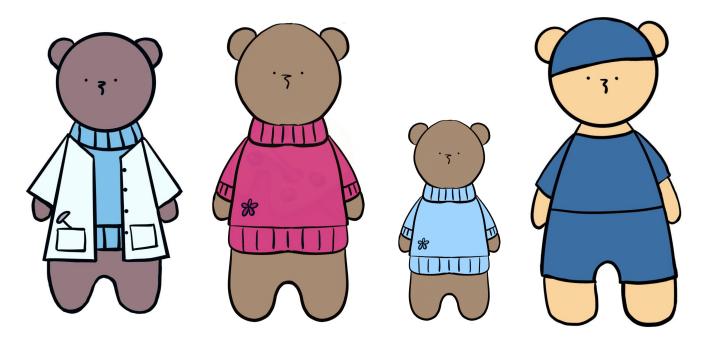
Shifteh Sattar, MD David Gonda, MD Maria Augusta Montenegro, MD, PhD EPILEPSY SURGERY First edition, 2023 Text Copyright by Maria A. Montenegro & Shifteh Sattar & David Gonda Illustrations Copyright by Maria Carolina Montenegro

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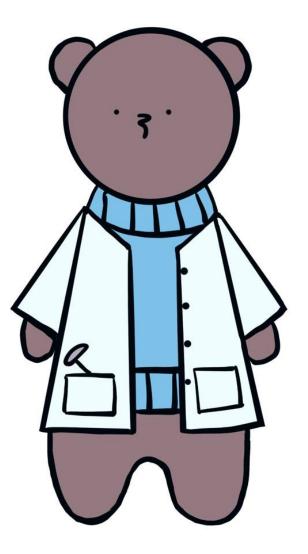
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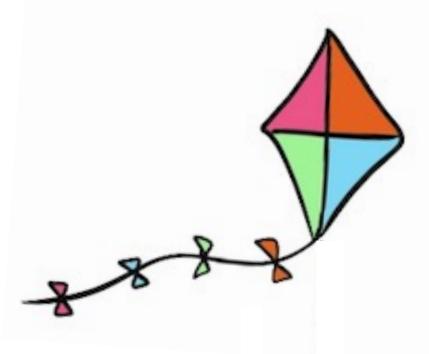
Hello! I like to play soccer and fly my kite. After school I enjoy playing with my friends.



One day, I fell and started shaking. I didn't remember anything. My mom took me to the doctor. She was really nice and she was a brain doctor. She told me I have epilepsy.



Epilepsy is a condition where a person has seizures and needs medication to control it. Seizures aren't the same for everyone. Some shake, some stare, and sometimes people can say or do weird things during a seizure.



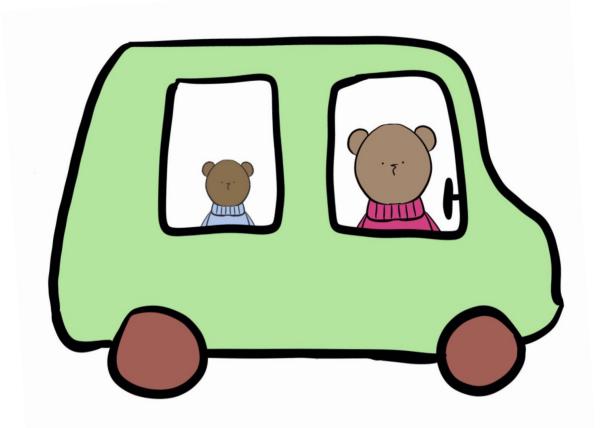
The brain doctor gave me a medicine to control my seizures.

My seizures were controlled for a while, but then I started to have more seizures. I took all my medicine, but I still had seizures.

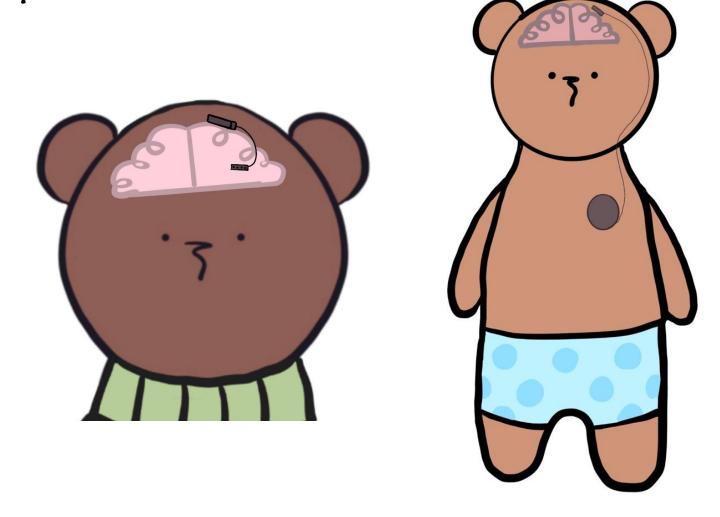
Some patients still have seizures despite trying more than two medications. It is called drug-resistant epilepsy. For kids that have bad seizures the brain doctor may do more tests to find out why. She may also try different things to help stop seizures.



"What options do we have?" Today we are going to the hospital to find out if neuromodulatory devices are good for my seizures. But it is not for everyone, so now I am going to do tests to see if it is good for me.



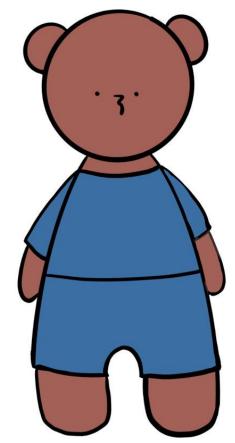
Neuromodulatory devices send electric impulses to the brain in order to help control the seizures. Brain doctors can help find which one is better for each patient.



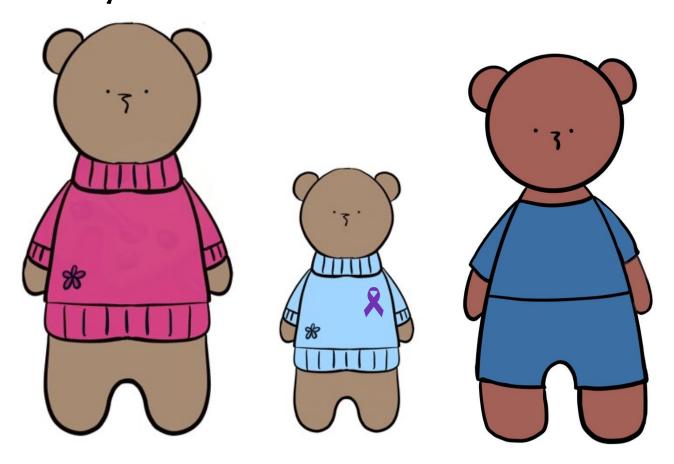
At the hospital, there was a very nice doctor.

She listened to my heart and checked my belly. Then she hit my knee with a little hammer. It didn't hurt!

It was actually funny because when she hit my knee, my leg kicked the air.

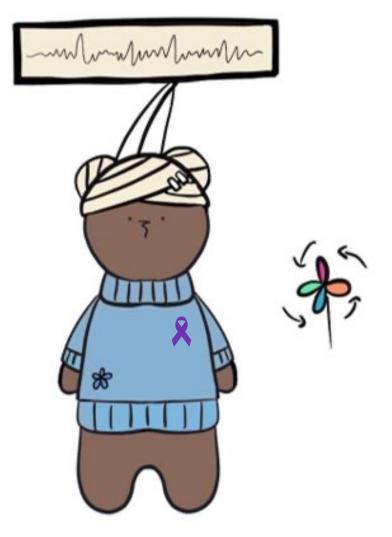


When she finished examining me, she said: "We need to do more tests to find out if neuromodulatory devices can help control your seizures"

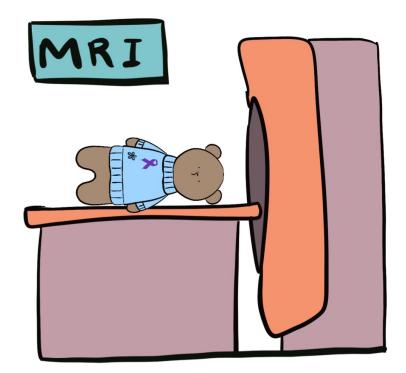


Many children get neuromodulatory devices to help control their seizures.

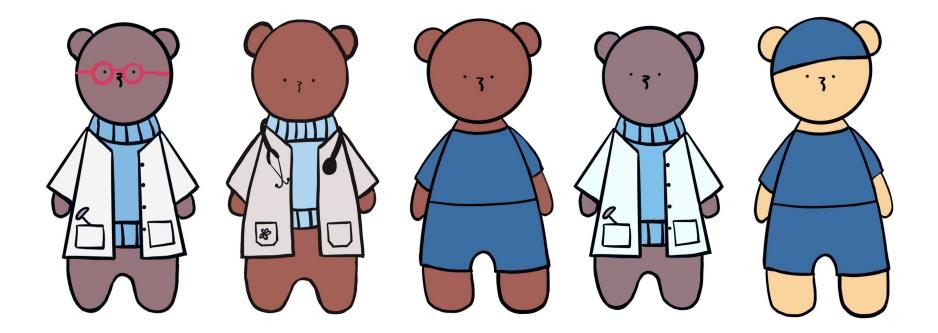
My brain doctor brought me into the hospital to get a test called video-EEG. When you get a video-EEG they put wires on your head, and it does not hurt at all.



Then I got an MRI. An MRI is like a big giant camera. They had me lay down on a bed and put me through this large round tube that is shaped like a donut. It took pictures of my brain. It did not hurt, and I got to watch a cartoon.

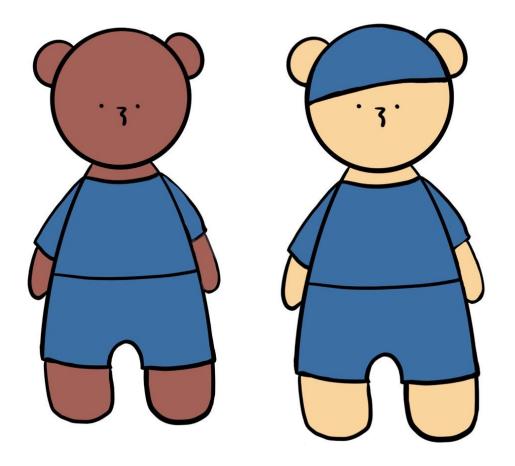


After all the tests were done my brain doctors had a meeting to see if I it is a good option for my seizures. Neuromodulatory devices can help control seizures for some kids so I really hope I can do it.

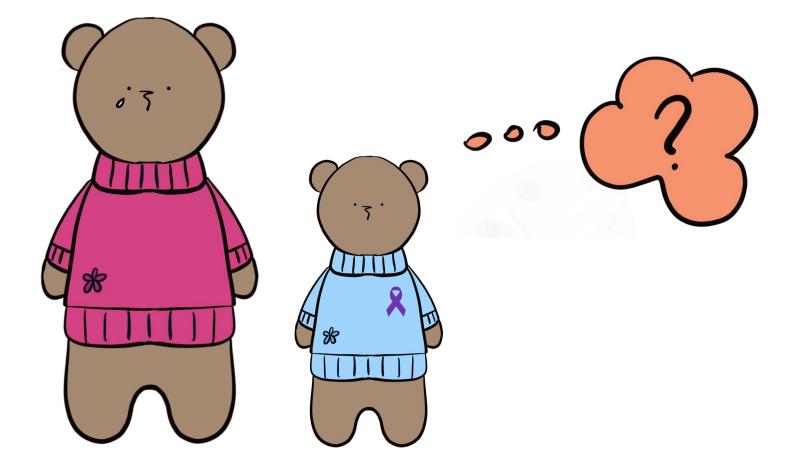


When they finished talking they said: "Good news! Neuromodulatory devices can help control your seizures"

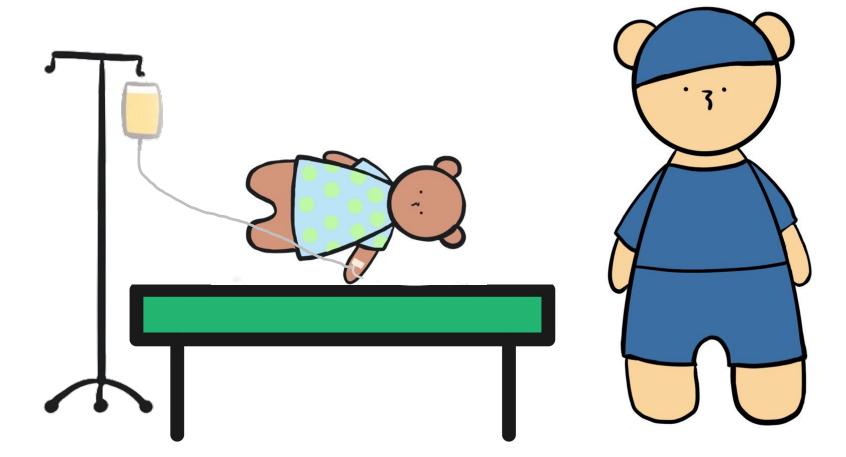
"Good news!"



Then they explained that the device is inserted by surgery. In the beginning, we were scared. Is the surgery going to hurt? Are they going to shave my head? Do I have to sleep at the hospital many days?



But they explained that I will be sleeping during the surgery (so I am not going to feel any pain). Depending on the device a very small piece of hair will be cut, and after a few days I can go home.



If I get a small scar, my hair will cover most of it.

When I get the neuromodulatory device may seizures may get better, and I am hoping to play soccer and fly a kite with my friends without being scared to have a seizure.

