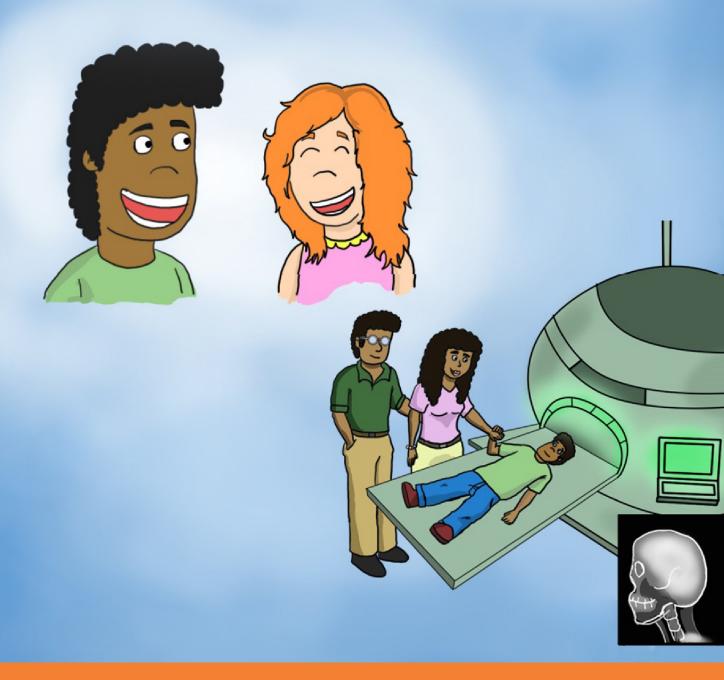


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## Learning about X-rays with Lula and Ethan (2nd Edition)



The concept for this book was based on my nephew's visit to the emergency room. Both he and his parents had some questions and concerns about his visit.

I realized that for many parents and children, having an X-ray performed can be a stressful experience.

My hope was to share some helpful information about radiology with other children who may have the same experience.

This book is not intended to replace medical education, advice, or diagnosis by a health professional.



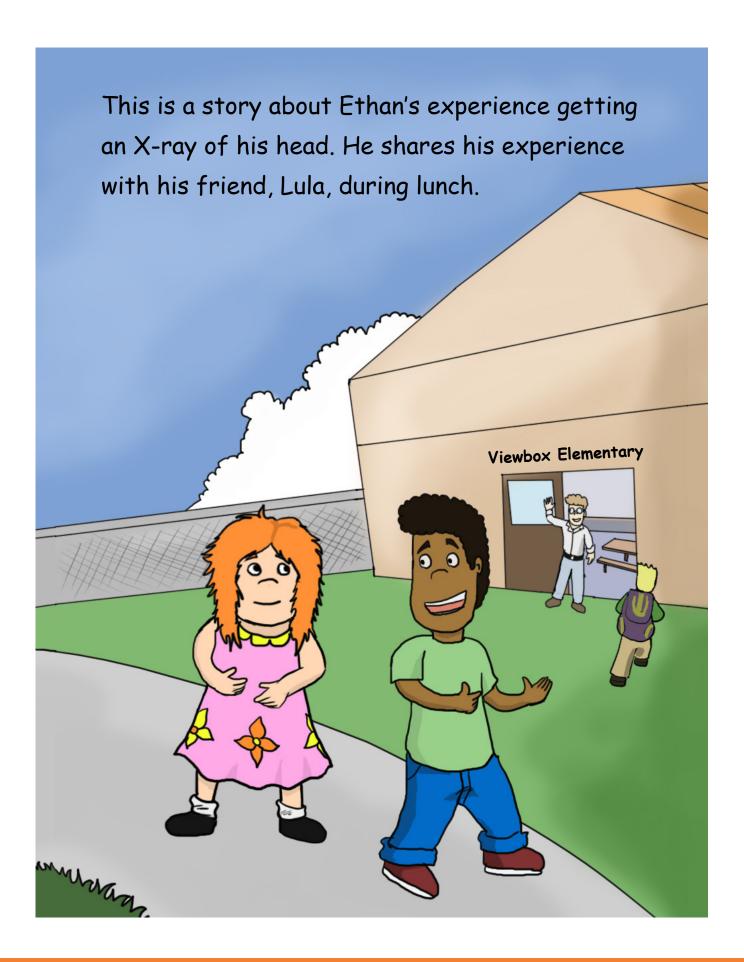
#### Mission

Viewbox Holdings, LLC is a comprehensive group based on medical education, achievement, and scholarship. We are focused on the development of products and services to be used for the evolution of healthcare innovation.

It is our goal to introduce innovative experiences and educational resources into the world of medicine, as medicine can only be advanced through the sharing of information.

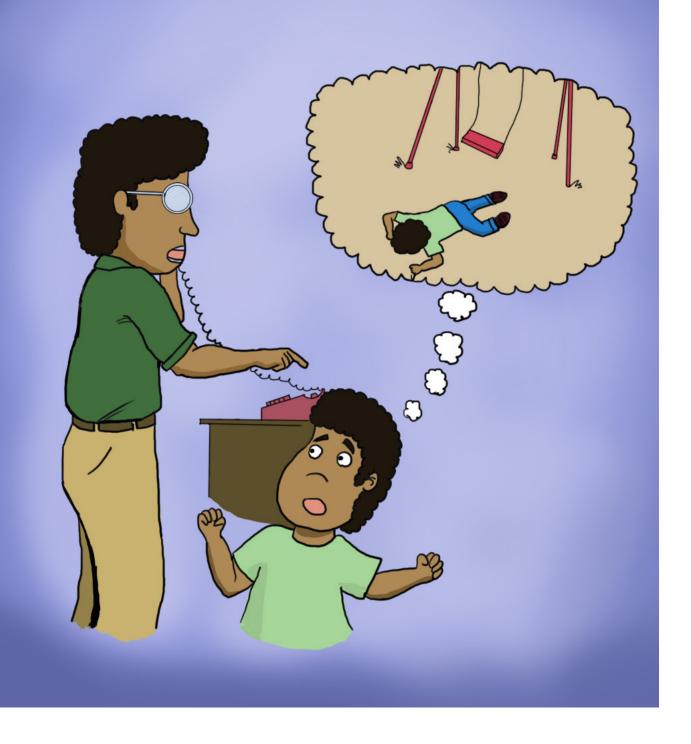
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Children go to the doctor's office for many reasons. Sometimes the doctor has to take an X-ray to see what's wrong.





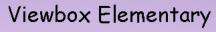
While I was standing up in the swing this weekend, I fell off and bumped my head.



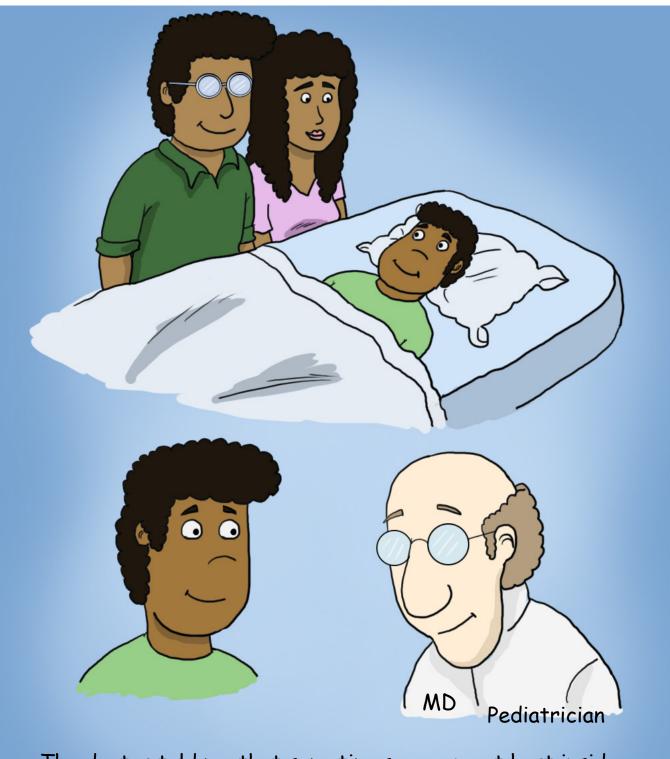


Well, I didn't have much pain, but my parents took me to the emergency room. I got a picture of my head with a special machine that uses X-rays to see inside of our bodies. It was so cool that I was thinking about doing my science project on X-rays!

If you didn't have any pain, then why did you go to the hospital? What's an X-ray?







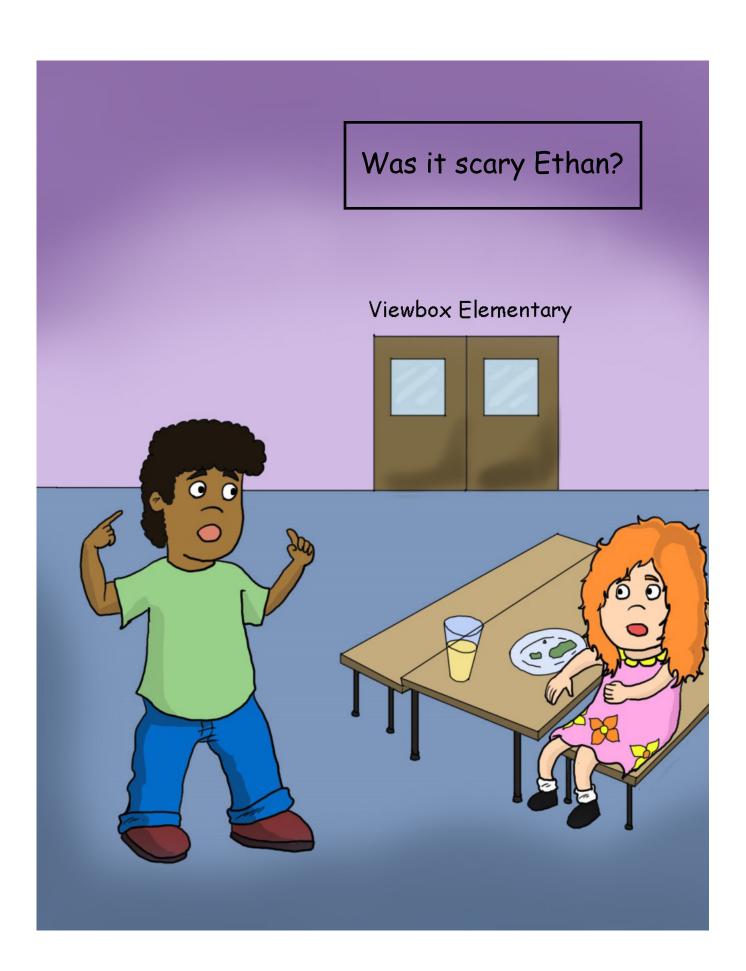
The doctor told me that sometimes we can get hurt inside of our bodies and not have much pain, so he wanted to get a special X-ray of my head called a CT scan.



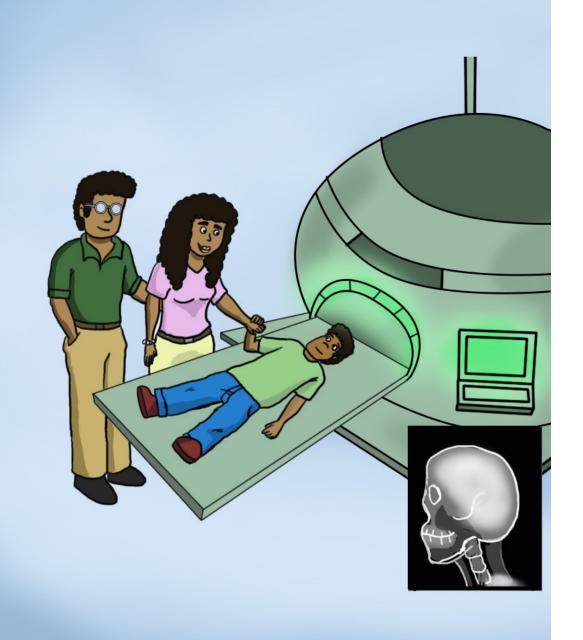
Learning Time!

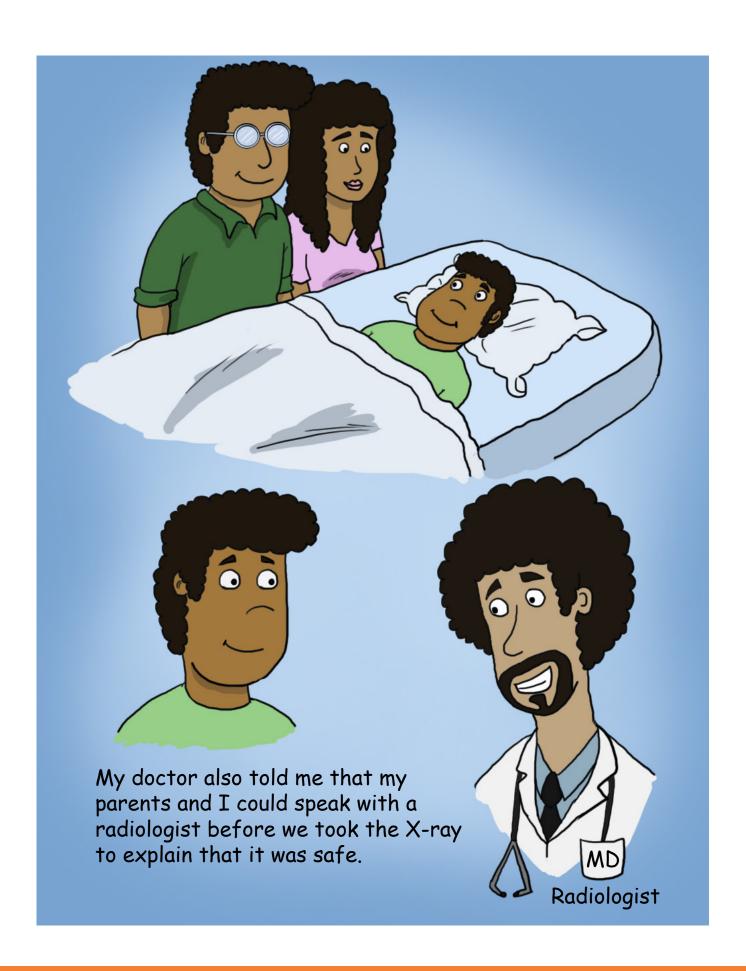
X-rays (pronounced ex-rays) - are special pictures that allow a special medical doctor called a <u>radiologist</u> to see inside of our bodies.

<u>CT scan</u> (pronounced cee-tee) - is a machine that produces <u>X-rays</u> that allow a special medical doctor called a <u>radiologist</u> to see inside of our bodies.



No, because the doctor told me that my parents would be nearby when I had the CT scan taken.







Learning Time!

Radiologist (pronounced ray-dee-ol-o-gist) - A radiologist is a special medical doctor who can look at pictures created by X-rays that see inside of our bodies. These special medical doctors know how to figure out what is wrong with us by looking at these pictures. They are also trained to help answer questions about X-rays.

The radiologist told me there are special questions that children can ask if they have to get an X-ray.

What kind of questions should we ask Ethan?

#### Viewbox Elementary



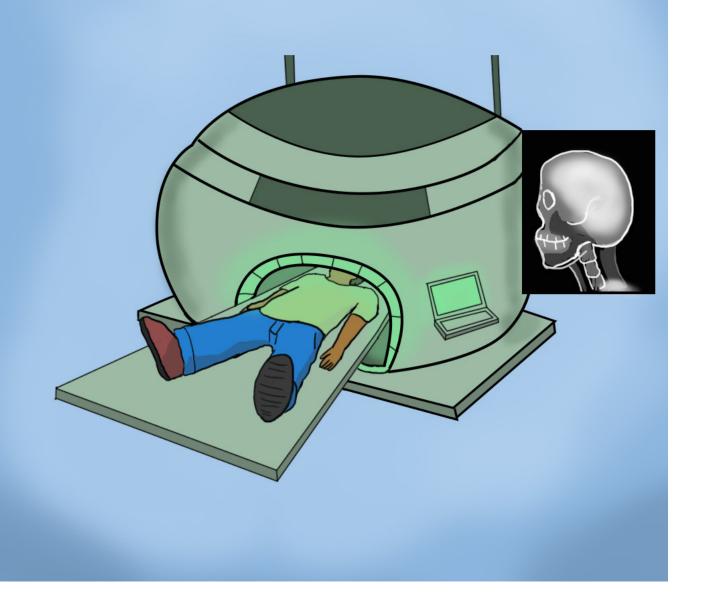
One question we can ask our doctor is what kind of picture we need.

You mean there are pictures other than X-rays that the doctor can look at to find out what's wrong with us?

### Viewbox Elementary



# Yes, I had a special X-ray called a CT scan because I hurt my head.



Because X-rays contain radiation, my parents said the radiologist will make sure they first try another test that DOES NOT contain radiation.







Learning Time!

Radiation (pronounced ray-dee-a-shan) - We get a small amount of radiation from an X-ray machine. The amount of radiation that we get flying all the way across the country is equal to about one X-ray of your chest. It takes a lot more radiation than one X-ray to cause injury.

The radiologist said that if you hurt another part of the body, he could find out what hurts by taking a picture with an ultrasound machine. He told me that ultrasound machines DO NOT use radiation, they use sound...kind of like a dolphin.

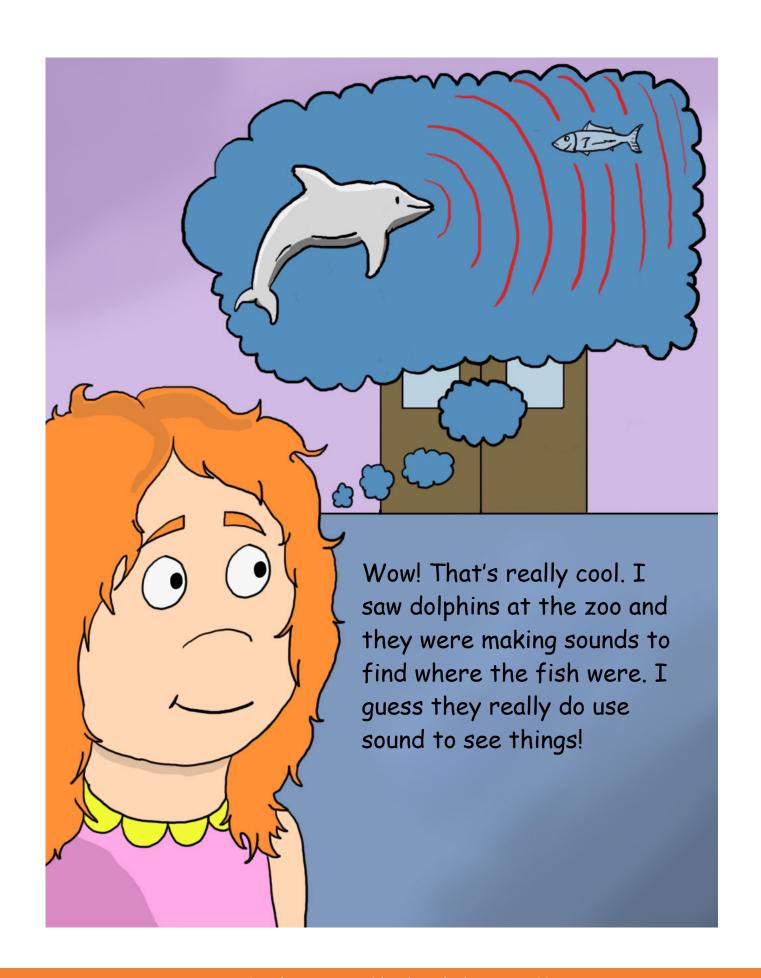
### Viewbox Elementary





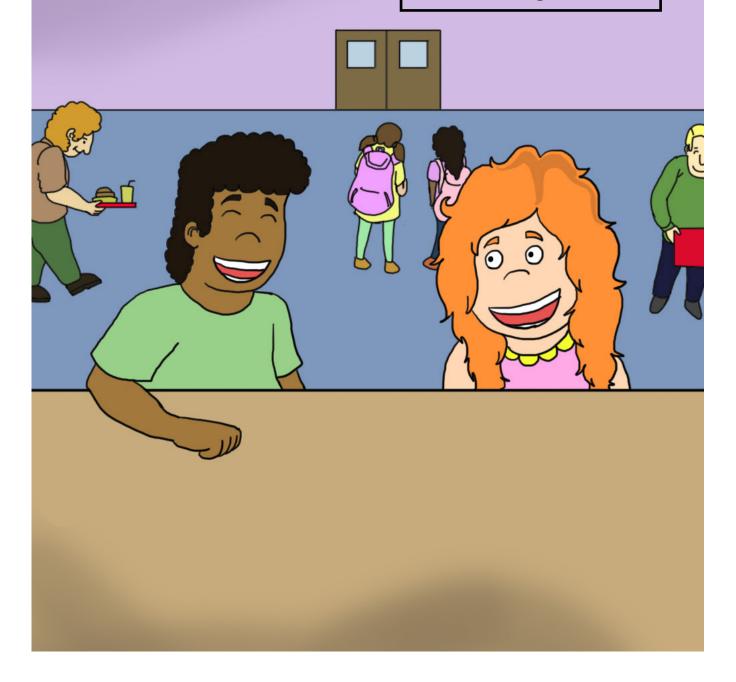
Learning Time!

<u>Ultrasound</u> (pronounced uL-Tra-Sound) - An <u>ultrasound</u> machine makes a picture of the inside of your body using sound, kind of like a dolphin makes pictures using sound. This kind of test DOES NOT have <u>radiation</u>. Sometimes a <u>radiologist</u> can use this picture to see whats wrong with you.



The doctor said sometimes we don't need any radiation and they could use ultrasound or wait a little while to see if we get better on our own.

Wow, you learned a lot Ethan! Now I can see why you want to do your science project about X-rays. I am glad you are feeling better!





Learning Time!

Just remember that radiologists and your pediatrician want to help answer your questions and make sure you get as little radiation as possible!

### Notes

#### **About the Authors**



Luther B. Adair, II, MD

He is a board-certified, subspecialty trained radiologist specializing in the diagnosis of abdominal and genitourinary illnesses. Dr. Adair is a published author in the field of radiology. During his internship at Cambridge Hospital and Harvard Medical School, he worked as a pediatric emergency room physician. He is also a co-founder of Viewbox Holdings, LLC.



Seth Crapp, MD

He is a board-certified, subspecialty trained radiologist specializing in the diagnosis of pediatric illnesses. Seth J. Crapp, M.D. is a member of the Society of Pediatric Radiology and is a published author in the field of pediatric radiology. With strong interests in pediatric radiology, Dr. Crapp undertook a fellowship in pediatric imaging at Monroe Carell Jr. Children's Hospital at Vanderbilt University. Dr. Crapp is a co-founder of Viewbox Holdings, LLC.

# For further information, please visit RadInfo 4 Kids

Sometimes the Emergency Room can be a confusing place for children. This book is based on some of the common questions and concerns that we, as radiologists, get asked about this experience. Our hope was that this book would make a visit to the Emergency Room a little less scary.

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