



## How my body fights off germs? A presentation for first and second grade children

Script by:

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Slide Show

### Begin Script

**John:**

Hi kids, my name is John and this is Brian and we are students from Loyola University. We spend a lot of our time at school trying to understand how your body fights off germs that cause infection. That is what we are going to talk to you about today. Today you are all going to participate in a story that will help us all understand how your body and mine fights off germs. Your body has very important and special cells that take care of fighting off germs. These cells are called the cells of your **immune system**.

**Can you say immune system? -Immune system.**

Your cells of the immune system fight off the germs that infect your body. Now there are two words that I just said that you may not know the meaning of. germs and infection.

**Does anybody here know what germs are? Student response**

--Germs are small organisms that get into your body and can cause infection. Infections can be very bad for your body and make you very sick.

Today we are going to talk about two types of germs specifically: Virus and Bacteria

**Can you all say Virus and Bacteria? --VIRUS and BACTERIA**

**Can anyone tell me some ways that a germ can get into your body?**

**Student response**

--One way germs can get into your body is through cuts in the skin

**If we were to pretend that this room was the inside of your body, what would be some ways germs could get into this room?**

**Student response**

(Doorway, Window) Right the doorway is one way that germs could get into this room.. The doorway to your classroom over there is covered by paper which is keeping all the germs out of our body just like skin can keep germs out of your body. You can see the skin over the doorway.

**What if we were to make a cut or scrape in the skin of the doorway?**

If we were to make a cut or scrape in our skin then the germs would have a way to get into your body.



**Brian:****If you get a cut when you fall down what is the first thing you do?**

--You or an adult clean up the cut and cover it with a band-aid.

Well that is the exact same thing the inside of your body wants to do. It wants to cover

up the cut and clean up the germs that got in. To close up the cut your body has very special immune cells called **PLATELETS**.

**Can you say PLATELETS? --Platelets**

These cells close up the cut so that no more germs can get in.

I want you five students to come up here and take these platelets and after I make a cut in the skin (doorway) I want you to close up the cut.

*Make cut and Miss Virus (Kirstin) and Miss Bacteria (Diane) enter through the cut. Then the platelets close up the cut.*

So now there is no way for anymore bacteria and -virus (germs) to get into your body, but it needs to take care of the bacteria and virus that have gotten into your body.

**Kirstin:**

My name is Kirstin and I am a virus that has entered your body through the cut in the skin.

Has anyone had a cold this winter? Well if you have, your cold was caused by a virus getting into your body. Some ways virus can enter your body, through breathing or cuts in the skin.

Virus survive by getting into cells and taking them over. These clear balloons with green insides' are going to be cells of your body that become infected with virus. These white balloons that John is going to spread out are normal cells of your body.

*Mr. Virus spreads out the balloons while John spreads out some white balloons.*

**John:**

Your body needs to get rid of these cells where the virus is hiding out. There are immune cells in your body that can destroy these infected cells. They are called **T Cells**.

**Can you say T Cells? --T cells --**

I want you five students to be T Cells are go over to the virus infected balloons and stomp on them and destroy them. Please leave the good cells the white balloons alone. Only stomp on the clear balloons with green paper inside (the virus infected cells).

So now the T Cells have taken care of getting rid of the infected cells. But as you can see we have another visitor that has entered our body through the cut.

**Diane:**

My name is Diane and I am a bacteria. I got into your body through the cut in the skin. Some other ways that bacteria can get into the body are by eating and breathing them. Bacteria get inside your body and they multiply. Now normally your body can take care of the bacteria, but sometimes you need help. So when- you go to the Doctor, they give you medicines called **Antibiotics**.

**Can you say Antibiotics? --Antibiotics****Does anyone know what antibiotics do?**

--That is right antibiotics destroy the bacteria.

This medicine, or antibiotics, destroys all the invading bacteria.

*Miss Bacteria will spread out and shed all the red balloons, which symbolize bacteria.*

The red balloons are bacteria that have gotten into your body and multiplied to make more bacteria.

**John:**

So we have all this bacteria in our body that we need to get rid off. I want you students to be my antibiotics and go and destroy the red balloons, which are bacteria. Remember to leave the white balloons alone, the good cells. Only destroy the bacteria, not the good cells.

Now that the T cells have destroyed the virus and the antibiotics have destroyed the bacteria we have to clean up all this mess. You have immune cells in your body called Macrophages whose job it is to clean up the mess.

**Can you say Macrophages? --Macrophages**

Macrophages clean up the mess. You all are macrophages and your job is to go and clean up the dead bacteria and dead virus cells and put them in the trash can. They recycle all the parts into things your body can use.

So today kids we have discussed some cells of the immune system that help your body fight off germs and infection.

Brian: So after we get a cut in our skin and the gen-ns are trying to get in what do platelets do? *Cover up the cut*

**Kirstin:** But we still have virus and bacteria that have gotten into our body that we need to get rid of, so what are the cells that destroy virus infected cells? *T cells*

**Diane:** What does the doctor give us to help our body get rid of bacterial genus? *Antibiotics*

**John:** And we have all the dead mess left in our body and what do Macrophages do? *Clean up the mess*

These are ways that your body fights of germs and infection. We hope you all have learned something today. Are there any questions we can try to answer for you?

To remember our trip here today we have activity books for you all about the different cells of the immune system. We hope that you take them home and work on them with your parents help and maybe put them up on the refrigerator.

**Thanks.**

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