20 - Immune System

Your kid will take a journey with us into your IMMUNE SYSTEM on today's super sick episode of Who Smarted?

No one likes being sick. The fever, fatigue, and the nasty stuff that comes out of you is NO FUN! But how much of what happens to you when you're sick is caused by GERMS, and how much is actually your body's IMMUNE SYSTEM helping you?

Your kid will learn that having a fever is your body fighting off germs! By raising your body temperature, a fever heats and kills some germs and stuns and slows down other germs, buying time for your body's immune system to attack them!

They will also learn that different types of immune cells take different action, depending on what's required: Some gobble up invasive bacteria, others emit antibodies that stop invaders from multiplying, while other inject germs with toxins that cause them to explode!

And they'll discover that when stuff comes out of either end of your body from being sick, that's your body's way of literally ejecting toxins from your system. So, as much as it stinks, it's actually just your body doing its job.

Oh and about that skin dust:

Your skin is actually a part of your immune system, and is your body's first line of defense. Besides being literal armor your skin cells also perform specialized functions that neutralize infections bacteria, so it is an active immune organ. All that defending against the environment takes its toll, and your skin sheds around thousands of dead skin cells every hour!

That adds up to about 9 pounds of dead skin cells every year, so a family of four is shedding around 3 pounds of dead skin cells every month! So yes, though we can't say MOST of the dust in your house is dead skin, it is definitely true that a large percentage of the dust in your home is actually dead skin cells. And that's not gross at all... Nope.

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Keep the learning going:

In the episode we talk about three kinds of immune cells: The kind that stops germs in their tracks The kind that eats germs The kind that injects toxins into germs and make them explode

Have your kid draw a picture or comic strip featuring as many of these kinds of immune cells as they'd like, showing how they handle incoming infectious germs!

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¹ This activity guide is for the Who Smarted? podcast <u>www.WhoSmarted.com</u>