

SLIMY STUFF - MUCUS, SNOT, AND BOOGERS

Slimy, gooey, sticky, crusty, wet, and gross...all descriptive words for something you might also call boogers, or snot!



The correct name for this slippery stuff is **mucus**. Mucus is a normal substance found in many parts of our bodies. You are most likely familiar with it in your nose, but mucus also lines other tissues, for example, the lungs, sinuses, mouth, and **gastrointestinal tract** (stomach and intestines). You can think of mucus as a biological lubricant; it works in living things the way oil works to lubricate a machine.

The human body produces 1 – 1.5 liters of mucus each day!



You probably don't even notice it unless you have a cold, the flu, or an allergy.

Mucus is made of water, **polysaccharides** (a type of **carbohydrate**, or starch whose molecules consist of a number of sugar molecules bonded together), proteins, and inorganic salts. Mucus in the mucus membranes of your nose helps protect and moisturize these surfaces so that they don't dry out. Mucus helps protect the respiratory tract by trapping particles that are in the air, like dust, dirt, pollen, and germs. There are little hairs in your nose called **cilia**, which help move the mucus to either the front of your nose or to the back of your throat. When this dries out and clumps up, you have a booger.

Everybody gets them; boogers are normal. Picking your nose is not a good idea! It is much better to blow your boogers into a tissue, because they contain a lot of germs. If you get them on your hands, you can spread them to other surfaces. Germs on your hands can also spread to your nose.

How to make "mucus (or snot) in a bowl"

- 1 Tablespoon of unflavored gelatin
- ½ cup of syrup, like corn syrup
- 1 Tablespoon salt
- Hot water
- Food coloring (optional)
- Heat-proof bowl



1. In a heat-proof bowl, mix gelatin and salt
2. Add ½ cup of syrup
3. Ask an adult to add ½ cup of hot water
4. Add a little yellow or green food color for special effects. (optional)
5. Mix and place in refrigerator for at least a half hour.
6. Take it out and run a fork through it. See what it looks like. This mucus will get thicker as it cools.
7. Add more water if it gets too thick.

What happened?

You made a model of your own mucus, which is made of water, cells, **mucins** (large proteins), carbohydrates and salts. Your “mucus in a bowl” contains salt, sugars, protein (gelatin is an animal protein), and water, similar to real mucus. The gelatin particles dissolve in the hot water, but swell up to make a gooey substance when they cool.

More interesting facts about mucus:

 When you have a cold, your body makes more mucus to carry out waste. The mucus can change color and may be yellow or green because it contains bacteria, virus particles, and white blood cells that are fighting the infection.

 Snails and slugs, as well as other **invertebrates** (animals lacking a backbone), produce external mucus. External mucus helps to protect these animals, and helps them move and communicate.

 Eating spicy food can cause the mucus membranes in your nose to make more mucus.

 Too many boogers? Try drinking more water. Staying hydrated helps thin mucus and makes it easier to manage.

ADDITIONAL RESOURCES

Websites

Scripps Health https://www.scripps.org/news_items/6831-5-fun-facts-about-boogers

CBC Kids (Canadian Broadcasting Corporation) <https://www.cbc.ca/kidscbc2/the-feed/whats-the-deal-with-all-this-snot>



Videos

SciShow Kids: What are boogers? <https://www.youtube.com/watch?v=Jijnn-JxK2w>

The Dr. Binocs Show: Why do we need mucus? <https://www.youtube.com/watch?v=UdwGzUaLOE>

WebMD: How Boogers Are Formed <https://www.webmd.com/cold-and-flu/video/what-are-boogers>

Books available from the Washoe County Library System

Burps, Boogers, and Bad Breath by David Conrad

Crust & Spray: Gross Stuff in Your Eyes, Ears, Nose, and Throat by C.S. Larsen

Why is Snot Green?: and Other Extremely Important Questions (and Answers) by Glenn Murphy

