I don't feel well, I have a cold - My throat is all scratchy AND it hurts when I swallow AND I have a blocked nose!

I don't feel well either - I have a sore throat too AND I have lots of white spots on it AND my head feels so hot!

We should take you to the doctor to get some medicine.

What's the problem?

I have a cold. My throat is all scratchy AND it hurts when I swallow AND I have a blocked nose!

I have a sore throat too, my head is so hot and my nose is runny.

At the doctor's office...

And I took both their temperatures and they are definitely higher than normal.

Hmmm. Sounds like an infection. Take plenty of fluids and get plenty of rest and you should both feel better soon.

Can't you give them something for it?

They could take painkillers which would help relieve aches and a high temperature.

How about some antibiotics? They cure infections!

They don't cure all infections.

They can only be used to treat infections caused by bacteria and not those caused by viruses!
They are viruses. Antibiotics don't kill viruses. When you have a virus, like a cold virus or flu virus, your body sends out an army of cells that fight the invading microbes. We develop immunity and we usually get better within a week...

...so it's best to rest until your body fights the virus itself.

These microbes are different! They are bacteria not viruses! They are causing your sore throat. This bacterium is called *Streptococcus pyogenes*. Having a sore throat that is caused by a bacterium is rare.
Does that mean I can take antibiotics to get rid of the bacteria?

Well, yes, but it’s always best to wait a few days first and see if your body gets rid of the infection on its own.

Why?

If we use too many antibiotics, the bacteria can become resistant. That means the medicine will stop working. To make sure that doesn’t happen, we only need to use antibiotics when really necessary.

What else can we do to make sure bacteria don’t become resistant to antibiotics?

If you are given some to take, make sure only you take them, and take all the ones you are given, don’t stop just because you feel better! Also, try not to spread infections: Wash your hands regularly, use a tissue if you sneeze or cough, and avoid going out too much if you are unwell.

Come on, let’s go home and rest in our warm beds and wait to get better!

The Microbiology Society is a membership organisation for scientists who work in all areas of microbiology. It is the largest learned microbiological society in Europe with a worldwide membership based in universities, industry, hospitals, research institutes and schools. The Society publishes key academic journals, organises international scientific conferences and provides an international forum for communication among microbiologists and supports their professional development. The Society promotes the understanding of microbiology to a diverse range of stakeholders, including policy-makers, students, teachers, journalists and the wider public, through a comprehensive framework of communication activities and resources.

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Written by Theresa Hudson
Edited by Dariel Burdass