

Virus or Bacteria What's the difference?



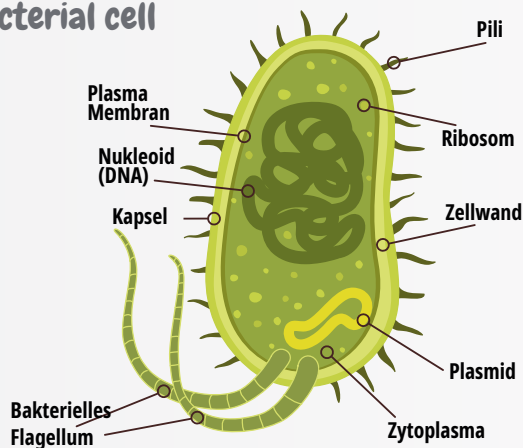
Oh dear ... Lukas is not feeling well at the moment. He feels weak, has a sore throat and little appetite. But why does his body react like this and, above all, to what? Often it is either viruses or bacteria that make life difficult for us with these symptoms. But do you know how the two potential pathogens differ from each other? It's not so obvious, because viruses and bacteria are found almost everywhere in our everyday lives. They are so small that we can't see them with the naked eye. Lukas can't see any of them!

So let's take a closer look:

First of all, Lukas finds out that bacteria are much bigger than viruses. They have an average size of 1 micrometre and are up to 100 times larger. So you can see them under a light microscope.

Another important difference: Bacteria are counted as living organisms, but this is not so clear for viruses. Bacteria represent the simplest form of life. They consist of a cell wall and genetic material and, further on, ribosomes, cytoplasm and an internal structure. Once they enter our bodies, they continue to divide on their own to reproduce. Bacteria are not dependent on other cells in our body.

Bacterial cell



The waste of their metabolic products makes us humans sick.

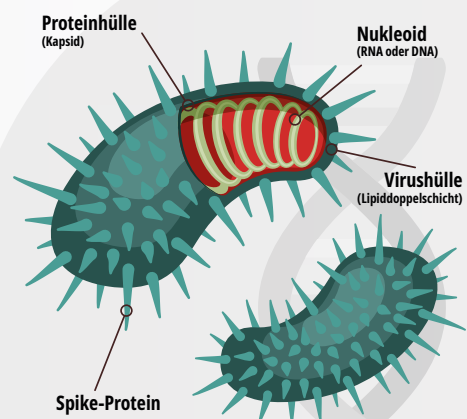
(Tom: „But not all bacteria make us sick! There are also good bacteria, for example in our intestines. They help us digest food!“).

With viruses, things are a little different: it has not been definitively clarified whether viruses are living organisms or not. One thing is certain: they cannot reproduce on their own, but need a host to reproduce. Viruses consist only of their genetic material, packed in a protein envelope. Once this genetic material is within a cell of our body the virus spreads further throughout the body through cell division. If this destroys the body's own cells in the process, it makes us sick.

But how will Lukas get better now?

Antibiotics are usually effective against a bacterial infection; other medicines can help with a viral infection. In both cases, however, it is advisable for Lukas to go to his doctor and have himself examined. And what never hurts is rest and enough sleep. 😊

Virus cell



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