## Risk-benefit analysis

### Fact

Vaccines carry less risk than the infections and illnesses they protect against.

Vaccines are only approved and recommended if their potential benefits (protection against infection and severe illness) outweigh their potential risks (possible side effects). The risks associated with some diseases can be quite dramatic, such as meningitis (from measles) or paralysis (from polio). These risks can be significantly reduced or even eliminated by vaccination.

### Myth

“The vaccine is more dangerous than the infection.”

### Explanation of fallacy

Successful vaccination programmes have significantly curtailed or even completely eradicated many diseases, such as rubella in Germany, for example. As a result, most people no longer have any contact with vaccine-preventable diseases. Therefore, it is understandable that the impression can arise that the possible risks of vaccination are more serious than those of the diseases with which one has no direct experience. However, as a matter of fact vaccinations have successfully prevented many, at times severe, illnesses which would reappear if vaccination rates fell.

### Fact

In fact: The infection and its possible complications are significantly more dangerous than the recommended vaccine.

A vaccine is only approved and recommended if its benefits substantially outweigh its potential risks.

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This was a truth sandwich.

More information at [www.rki.de/vaccination-myths](http://www.rki.de/vaccination-myths)