Vaccination - pros and cons

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Nowadays great attention is paid to the prevention of infectious diseases, but preventive vaccination remains the most effective way to protect the body from infections. However, many people and even experts often doubt whether humanity needs universal vaccination, so the widespread topic of vaccination remains a controversial question. Thus, this essay discusses the controversy over vaccination: the pros and cons of using vaccines; preventive vaccination features; the benefits of vaccination; and disadvantages of vaccination claimed by opponents.

During the preventive vaccination, a person is injected with small doses of special preparation which contains an antigen of the disease agents (Eilers, Krabbe & de Melker, 2014). Respectively, the human immune system produces protective antibodies that destroy pathogens. These antibodies persist in the body for a long time; therefore, in the case of re-entry of the microbe, clinical signs of the disease won't reveal.

Due to the lack of objective information, the question of vaccination pros and cons is still relevant. The main purpose of vaccination is to prevent a disease, but currently used vaccines cannot guarantee the absence of side effects. Firstly, it is yet impossible to verify whether the vaccine generates a hundred percent artificial immunity. Many infectious diseases can be observed in already vaccinated people (Eilers et al., 2014). In addition, there is the widespread opinion that the vaccine disrupts the natural immunity of the person. Secondly, the vaccines often contain toxic substances which are slowly eliminated from the body and can poison the person. Such substances include formaldehyde, phenol, glycerol, alum, mercury compounds, aluminum phosphate, and others. Influence of some vaccines on the human body is still not fully understood (Soriano, Nesher & Shoenfeld, 2014). And thirdly, the synthetic vaccine can cause cytolysis, the destruction of cells which is a cause of recently occurred diseases.

Finally, it is important to take into account the moral and ethical sides of the issue. In manufacturing of certain vaccines animal ingredients are used, such as brain tissue of rabbits, horse blood, pus of cow udder and others. For example, monkey kidney tissue is used for polio vaccine (Okayasu, Sutter, Jafari, Takane & Aylward, 2014). Moreover, bacteria or viruses for vaccines are grown mainly in sick animals, because they cannot survive in healthy ones. All these are still unresolved topics in the discussion on vaccination.

However, in discussing the topic of vaccination it should be noted that the benefits of the using vaccines are significantly higher than the risks. Supporters of vaccination have their arguments. Vaccination against several diseases, such as rubella, gives lifelong immunity. For unimmunized person consequences of viral infections, particularly after influenza, measles, diphtheria, can cause severe, sometimes mortal, outcomes. Vaccinations are badly needed if you are going to visit the regions where diseases are greatly spread, such as tick-borne encephalitis (McIntosh, Carey, Toneatto, Dull & Wassil, 2015). Vaccinations are very important in case of contaminated injuries (tetanus hazard) and after contact with animals that are suspected of having rabies.

It is also worth mentioning the number of social disadvantages caused by the lack of preventive vaccinations. Among the latter are temporary refusal to unvaccinated people in the health and educational institutions in the case of epidemics, the prohibition for citizens to travel to some countries, refusal to accept a child in kindergarten and more other social disadvantages.

In conclusion, the controversial question about vaccination remains open. Opponents and supporters of vaccination have different and completely opposite arguments on this issue. Therefore, people should determine their own attitudes towards vaccination, taking responsibility for their own health and the health of their children.

## References

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