



## Hepatitis B and hepatitis B vaccine what is the importance?

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### Abstract:

Two billion people, or one in three, have been infected with hepatitis B worldwide. Of these, about 260 million live with chronic hepatitis B. Each year about 900,000 people die from hepatitis B worldwide, and about 2,000 of these deaths occur in the United States. Hepatitis B is transmitted through blood and is 100 times more infectious than HIV. An estimated one billion infectious viruses are in one-fifth of a teaspoon of blood of an infected person, so exposure to even a minute amount, such as on a shared toothbrush can cause infection. Hepatitis B is sometimes referred to as the “silent epidemic” because most people who are infected do not experience any symptoms. Liver cancer is the fourth leading cause of cancer deaths throughout the world, behind lung, colorectal and stomach cancers. Almost half of liver cancers are caused by chronic infection with hepatitis B. The World Health Organization (WHO) recommends the inclusion of hepatitis B vaccine in immunization programs of all countries; in 2017, about 8 of 10 infants born throughout the world received three doses of hepatitis B vaccine. People are protected against hepatitis B virus infection by making an immune response to a protein that sits on the surface of the virus. When hepatitis B virus grows in the liver, an excess amount of this surface protein is made. The hepatitis B vaccine is made by taking the part of the virus that makes surface protein (“surface protein gene”) and putting it into yeast cells. The yeast cells then produce many copies of the protein that are subsequently used to make the vaccine. When the surface protein is given to children in the vaccine, their immune systems make an immune response that provides protection against infection with the hepatitis B virus. The first hepatitis B vaccine was made in the 1980s by taking blood from people infected with hepatitis B virus and separating or purifying the surface protein from the infectious virus. Because blood was used, there was a risk of contaminating the vaccine with other viruses that might be found in blood, such as HIV.



### Biography:

Ibrahim El-Bayoumy holds bachelor of medicine and surgery (Tanta faculty of medicine-Egypt,1989), then he earned his master degree in public health, preventive and social medicine (Tanta faculty of medicine-Egypt1996), and MD,PhD in public health ,preventive and social medicine 2003 from Tanta faculty of medicine-Egypt and McGill faculty of medicine -Montreal -Canada in division of clinical epidemiology in Royal Victoria hospital through double channel system as scholarship from ministry of education-Egypt. He is Full professor of public health and community medicine in Tanta faculty of medicine-Egypt since November 2016 . Now he is working in ministry of health in Kuwait as consultant of public health and preventive medicine. He has published many research works in international journals, he is interested in research in epidemiology of infectious diseases like HIV, tuberculosis, brucellosis and infectious hepatitis ,he is interested in epidemiology of chronic diseases like diabetes mellitus and its health economics ,obesity and cancer and pharmaco-epidemiology. He is a reviewer of many national and international journals. He has great interest also in childhood obesity and has written a chapter on childhood obesity in a book published by Nova publishers in USA.

### Publication of speakers:

1. Ibrahim El-Bayoumy, Prevalence of obesity among adolescents (10-14 years) in Kuwait;Asia Pacific Journal of Public Health , 2018; 21(2):153-159.

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