

One of the greatest achievements of 20th-century medicine was the global eradication of smallpox. Vaccination involves the administration of a preparation that a disease without having to be exposed to it. By infecting a relatively minor disease, Jenner found they developed immunity to smallpox. By 1853, infants in the UK were required by law to be vaccinated against smallpox, though the vaccines used allows the body to develop resistance to a disease children with cowpox, were not always effective. An outbreak of smallpox in New York City in 1947 led to the development of a freeze-drying technique which meant the vaccine could be stored for months without refrigeration, even in tropical climates. Finally, the high level of mortality from the disease made it easier to achieve global agreement on its eradication. Although smallpox has ceased to kill, it remains a potential danger to humanity. A significant feature of the disease is the development of blisters on the upper an part of the body, which eventually scab over and leave scars when the scabs fall off. Dried scab tissue from victims of smallpox was used to deliberately infect young people. By 1980, the WHO could formally declare smallpox eradicated worldwide. Its symptoms develop quickly, making those infected aware of the disease at an early stage and reducing the possibility of them unknowingly transmitting the disease to others. However, the most pressing fear stocks of the variola virus set aside for research purposes could some day be used as a biological warfare agent. Smallpox is caused by the variola virus and is most often transmitted by inhaling the virus. Around 30 per cent of those infected with smallpox die, usually within two weeks of symptoms appearing. Of those infected by variolation, one per cent died, far fewer than the 30 per cent killed by infection in the normal way. Improved technology and better vaccines also helped.