Vaccine

Pfizer–BioNTech

Introduction:

The Pfizer–BioNTech COVID-19 vaccine, sold under the brand name Comirnaty, is an mRNA vaccine produced by the German company BioNTech and the American company Pfizer. In Hong Kong, Macau, and Taiwan, Comirnaty is distributed by Fosun Pharma.

Vaccine efficacy against confirmed symptomatic COVID-19

Endpoint subgroup	Efficacy (95% confidence interval
All ages	**95.0% (90.0–97.9%)**
Age 12–17	Not estimable
Age 18–64	95.1% (89.6–98.1%)
Age 65–74	92.9% (53.1–99.8%)
Age ≥75	100.0% (−13.1 to 100.0%)
All ages, after dose 1, before dose 2	52.4% (29.5–68.4%)
All ages, ≥10 days after dose 1, before dose 2	86.7% (68.6–95.4%)
All ages, <7 days after dose 2	90.5% (61.0–98.9%)
All ages, ≥7 days after dose 2	94.8% (89.8–97.6%)
All ages, USA	94.9% (88.6–98.2%)
All ages, Argentina	97.2% (83.3–99.9%)
All ages, Brazil	87.7% (8.1–99.7%)

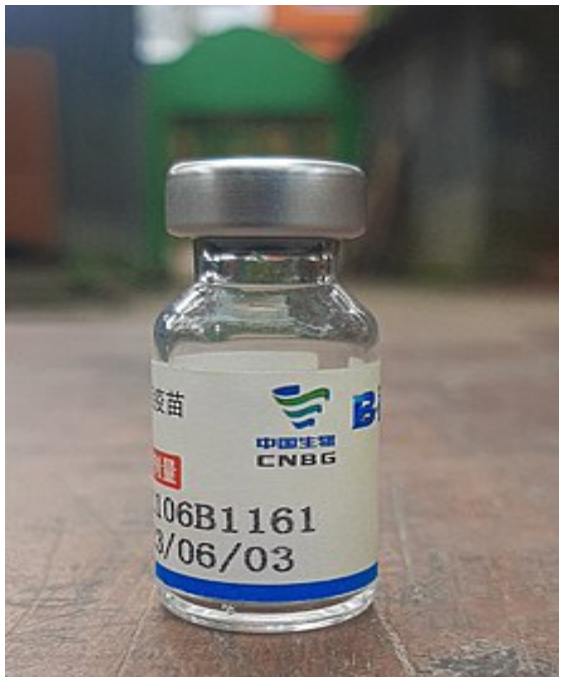
Oxford–AstraZeneca COVID-19 vaccine

Introduction:

The Oxford–AstraZeneca COVID-19 vaccine, sold under the brand names Vaxzevria and Covishield, is a viral vector vaccine[9] produced by the British University of Oxford, British-Swedish company AstraZeneca, and the Coalition for Epidemic Preparedness Innovations. Finland, Denmark and Norway suspended the use of the Oxford–AstraZeneca vaccine due to a small number of reports of a rare blood clot disorder. Slovakia suspended its use after the death of a predisposed recipient. South Africa suspended its use because a small trial found only minimal protection against mild to moderate disease from the locally predominant Beta variant. Japan approved the vaccine for emergency use in May 2021, but did not plan to use them immediately because of rare cases of a blood clotting disorder reported overseas. Later, Japan started to use the vaccine for people aged 40 or over to mitigate the surge of the Delta variant in August Finland ceased use of the vaccine as the last batch expired on 30 November 2021. Until then it was only offered for those aged 65 or more due to extremely rare coagulation disorders among younger recipients of the vaccine. After this Finland will not procure more of the vaccine.

Sinopharm BIBP COVID-19 vaccine

COVID-19



The **Sinopharm BIBP vaccine**, also known as **BBIBP-CorV**, the **Sinopharm COVID-19 vaccine**, or **BIBP vaccine**, is one of two inactivated virus COVID-19 vaccines developed by Sinopharm's Beijing Institute of Biological Products (sometimes written as Beijing Bio-Institute of Biological Products, resulting in the two different acronyms BBIBP and BIBP for the same vaccine). It completed Phase III trials in Argentina, Bahrain, Egypt, Morocco, Pakistan, Peru, and the United Arab Emirates (UAE) with over 60,000 participants.[7] BBIBP-CorV shares similar technology with CoronaVac and Covaxin, other inactivated virus vaccines for COVID-19. Its product name is SARS-CoV-2 Vaccine (Vero Cell), not to be confused with the similar product name of CoronaVac.

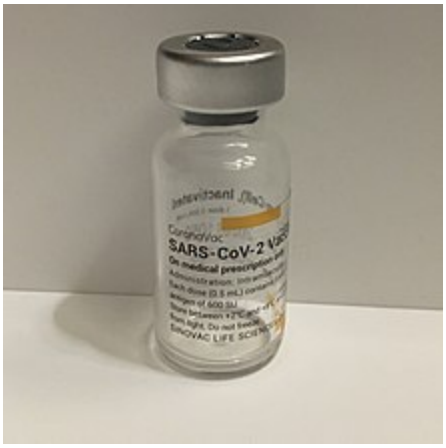
Moderna COVID-19 vaccine

The Moderna COVID-19 vaccine, also known as Spikevax, is an mRNA vaccine produced by the American company Moderna, the U.S. National Institute of Allergy and Infectious Diseases, the U.S. Biomedical Advanced Research and Development Authority, and the Coalition for Epidemic Preparedness Innovations. The Moderna vaccine is not offered for men under 30 years of age in Finland as a precaution to reduce a very rare risk of myocarditis.

Janssen COVID-19 vaccine

The Janssen COVID-19 vaccine is a viral vector vaccine produced by Janssen Pharmaceutica (a subsidiary of Johnson & Johnson) and Beth Israel Deaconess Medical Center. It is also known as Johnson & Johnson COVID-19 Vaccine and as COVID-19 Vaccine Janssen. Three countries, Denmark, Finland, and Norway, discontinued the use of the Janssen vaccine in favor of other available vaccines due to a possible link between the vaccine and a rare blood clot disorder. The use of the Janssen adenovirus vector vaccine began in Finland in October 2021. It is only offered for those aged 65 and over because of a very rare risk of thrombosis in younger age groups

CoronaVac



CoronaVac, also known as the **Sinovac COVID-19 vaccine**, is an inactivated virus COVID-19 vaccine developed by the Chinese company Sinovac Biotech. It was Phase III clinical trialled in Brazil, Chile, Indonesia, the Philippines, and Turkeyand relies on traditional technology similar to other inactivated-virus COVID-19 vaccines, such as the Sinopharm BIBP vaccine, another Chinese vaccine, and Covaxin, an Indian vaccine. CoronaVac does not need to be frozen and both the final product and the raw material for formulating CoronaVac can be transported refrigerated at 2–8 °C (36–46 °F), temperatures at which flu vaccines are kept

Covaxin

Introduction:

Covaxin (codenamed as **BBV152**) is an inactivated virus-based COVID-19 vaccine developed by Bharat Biotech in collaboration with the Indian Council of Medical Research - National Institute of Virology.

As of October 2021, 110.6 million people in India have received Covaxin. On 3 November 2021, the World Health Organization (WHO) validated the vaccine for emergency use.

Novavax COVID-19 vaccine

The **Novavax COVID-19 vaccine**, sold under the brand names **Nuvaxovid** and **Covovax** among others, is a subunit COVID-19 vaccine developed by Novavax and the Coalition for Epidemic Preparedness Innovations (CEPI). Full results from Nuvaxovid's pivotal phase III trial, were published in December 2021.

The vaccine requires two doses and is stable at 2 to 8 °C (36 to 46 °F) refrigerated temperatures. The most common side effects include headache, nausea (feeling sick) or vomiting, muscle and joint pain, tenderness and pain at the injection site, tiredness and feeling unwell

Sputnik V Vaccine

The Russian COVID-19 vaccine Sputnik V (Gam-COVID-Vac) is an adenoviral-based, two-part vaccine against the SARS-CoV-2 coronavirus. Initially produced in Russia, Sputnik V uses a weakened virus to deliver small parts of a pathogen and stimulate an immune response.

The Sputnik V (Gam-COVID-Vac) vaccine reduces the time taken for the actual development of immunity to SARS-CoV-2, the betacoronavirus behind the COVID-19 pandemic.

It is a vector vaccine based on adenovirus DNA, in which the SARS-CoV-2 coronavirus gene is integrated. Adenovirus is used as a "container" to deliver the coronavirus gene to cells and start synthesizing the new coronavirus's envelope proteins, "introducing" the immune system to a potential enemy. The cells will use the gene to produce the spike protein. The person's immune system will treat this spike protein as foreign and produce natural defenses, antibodies, and T cells, against this protein.

CoviShield COVID-19 Vaccine

The Serum Institute of India Pvt Ltd CoviShield COVID-19 (AZD1222) (C19VAZ) vaccine, formerly known as ChAdOx1 nCoV-19, is made from a virus (ChAdOx1), a weakened version of a common cold virus (adenovirus). In addition, genetic material has been added to the ChAdOx1 construct, which is used to make proteins from the SARS-CoV-2 coronavirus called Spike glycoprotein (S).

Drug regulators in India granted emergency approval for the coronavirus vaccine co-developed by AstraZeneca Plc and the University of Oxford on January 1, 2021. This vaccine is the same formulation as the Vaxzevria (AZD1222) vaccine. CoviShield is the Serum Institute of India version of the AstraZeneca COVID-19 vaccine.

On February 15, 2021, the World Health Organization (WHO) recommended the Serum Institute of India (SII) COVID-19 Vaccine (ChAdOx1-S [recombinant]), known as COVISHIELD. On March 19, 2021, the WHO confirmed that the AstraZeneca COVID-19 vaccine (Covishield) has a favorable benefit-risk profile, with tremendous potential to prevent infections and reduce deaths worldwide.