

COVID-19 VACCINE COMPARISON CHART

	Pfizer/BioNTech	Moderna	J&J (Janssen)	AstraZeneca	Novavax
Name	BNT162b2	mRNA-1273	Ad26.COVS	ChAdOx1 nCoV-19	NVX-CoV2372
Vaccine Type	mRNA	mRNA	Adenovirus vector	Adenovirus vector	Recombinant nanoparticle
Age	≥ 16 years old	≥ 18 years old	≥ 18 years old	≥ 18 years old	≥ 18 years old
Dosage	2 doses (0.3 mL) 21 days apart	2 doses (0.5 mL) 28 days apart	1 dose (0.5 mL)	2 doses 4-12 weeks apart	2 doses 21 days apart

EFFICACY

Overall	- 95% (7 days after 2 nd dose) - 90% (for mRNA vaccines under real-world conditions; ≥14 days after 2 nd dose) ¹⁴	- 94.1% (14 days after 2 nd dose) ² - 90% (for mRNA vaccines under real-world conditions; ≥14 days after 2 nd dose) ¹⁴	-66.1% (overall) ^{3,4} -72.0% (US) ^{3,4}	- 66.7% (overall; >14 days after 2 nd dose) ⁵ -82.4% (2 nd dose ≥12 wks after 1 st dose) ⁵ -54.9% (2 nd dose <6 wks after 1 st dose) ⁵ -76% (US overall; 15 days after 2 nd dose) ¹³	-89.7% (overall ; 7 days after 2 nd dose) ⁶
In Elderly Persons	94.7% (≥65 years) ¹	86.4% (≥65 years) ²	66.2% (≥60 years) ⁴	Limited data	27% of patients were ≥ 65 years ⁶
In Adolescents (12-15 years old)	100% ¹⁵	n/a	n/a	n/a	n/a
In Severe Disease	90% ¹	100% ²	Overall: 85.4% ⁴ US: 87.6% ⁴	100% ^{5,8}	100% ⁹
COVID-19 Death	100% ¹	100% ²	100% ⁴	100%	100% ⁹
UK Variant (B.1.1.7)	In vitro activity ¹⁰	In vitro activity ¹¹	≈ 60-75% ⁷	74.6% ⁵	86.3% ⁹
South Africa Variant (B1.351)	In vitro lower activity ¹⁰	In vitro lower activity ¹¹	64.0% ⁴	10.4% ¹²	48.6% ⁹
Brazil Variant (P.1)	In vitro activity ¹⁰	In vitro lower activity ¹¹	68.1% ⁴	Effective (prelim data)	Data not available
Variant – Specific Vaccine	Developing booster	Developing booster	Adapting vaccine	Adapting vaccine	Developing booster

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REFERENCE LIST

1. FP Polack et al. Safety and efficacy of the BNT162b2 mRNA Covid-19 vaccine. *N Engl J Med* 2020; 383:2603.
2. LR Baden et al. Efficacy and safety of the mRNA-1273 SARS-CoV-2 vaccine. *N Engl J Med* 2021; 384: 403.
3. News Release. Johnson & Johnson announces single-shot Janssen COVID-19 vaccine candidate met primary endpoints in interim analysis of its Phase 3 ENSEMBLE trial. Available at: <https://www.jnj.com/johnson-johnson-announces-single-shot-janssen-covid-19-vaccine-candidate-met-primary-endpoints-in-interim-analysis-of-its-phase-3-ensemble-trial>. Accessed March 19, 2021.
4. FDA. Fact sheet for healthcare providers administering vaccine. Emergency Use Authorization (EUA) of the Janssen COVID-19 vaccine to prevent Coronavirus Disease 2019 (COVID-19). Available at: https://www.fda.gov/media/146304/download?utm_medium=email&utm_source=govdelivery. Accessed March 19, 2021.
5. M Voysey et al. Single dose administration, and the influence of the timing of the booster dose on immunogenicity and efficacy of ChAdOx1 nCoV19 (AZD1222) vaccine: a pooled analysis of four randomised trials. *Lancet* 2021; 397:881.
6. News Release. Novavax COVID-19 vaccine demonstrates 89.3% efficacy in UK Phase 3 trial. Available at: <https://ir.novavax.com/news-releases/news-releasedetails/novavax-covid-19-vaccine-demonstrates-893-efficacy-uk-phase-3>. Accessed March 19, 2021.
7. J Lopez Bernal et al. Early effectiveness of COVID-19 vaccination with BNT162b2 mRNA vaccine and ChAdOx1 adenovirus vector vaccine on symptomatic disease, hospitalisations and mortality in older adults in England. *medRxiv* 2021 March 2 (epub). Available at: <https://www.medrxiv.org/content/10.1101/2021.03.01.21252652v1>. Accessed March 19, 2021.
8. M Voysey et al. Safety and efficacy of the ChAdOx1 nCoV-19 vaccine (AZD1222) against SARS-CoV-2: an interim analysis of four randomised controlled trials in Brazil, South Africa, and the UK. *Lancet* 2021; 397:99.
9. News Release. Novavax confirms high levels of efficacy against original and variant COVID-19 strains in United Kingdom and South Africa trials. 2021 March 11 Available at: <https://www.prnewswire.com/news-releases/novavax-confirms-high-levels-of-efficacy-against-original-and-variant-covid-19-strains-in-united-kingdom-and-south-africatrials-301246019.html>. Accessed March 19, 2021.
10. Y Liu et al. Neutralizing activity of BNT162b2-elicited serum. *N Engl J Med* 2021 March 8 (epub).
11. K Wu et al. Serum neutralizing activity elicited by mRNA-1273 vaccine. *N Engl J Med* 2021 March 17 (epub).
12. SA Madhi et al. Efficacy of the ChAdOx1 nCoV-19 Covid-19 vaccine against the B.1.351 variant. *N Engl J Med* 2021 March 16 (epub).
13. News Release. AZD1222 US Phase III primary analysis confirms safety and efficacy. 2021 March 25. Available at: <https://www.astrazeneca.com/content/astraz/mediacentre/press-releases/2021/azd1222-us-phase-iii-primary-analysis-confirms-safety-and-efficacy.html>. Accessed March 26, 2021.
14. MG Thompson et al. Interim estimates of vaccine effectiveness of BNT162b2 and mRNA-1273 COVID-19 vaccines in preventing SARS-CoV-2 infection among health care personnel, first responders, and other essential and frontline workers – eight U.S. locations, December 2020-March 2021. *MMWR Morb Mortal Wkly Rep* 2021 March 29 (epub).
15. News Release. Pfizer-BioNTech announce positive topline results of pivotal COVID-19 vaccine study in adolescents. March 31, 2021. Available at: <https://investors.biontech.de/news-releases/news-release-details/pfizer-biontech-announce-positive-topline-results-pivotal-covid/>. Accessed March 31, 2021.