COVID-19 Vaccination: Key Facts

Dentists, as trusted health care providers, have an opportunity to serve as a resource for evidence-based information, helping to educate colleagues and the public about the COVID-19 vaccination. Answering questions, helping to allay concerns, and providing up-to-date guidance based on available data will enable individuals to make informed decisions regarding the COVID-19 vaccination and bring us closer to putting an end to the current pandemic.

Status of COVID-19 vaccines in the U.S.

- Only a vaccine with Emergency Use Authorization (EUA) or approval from the U.S. Food and Drug Administration (FDA) can be administered in the U.S.
- The advisory committee to the FDA recommended EUA for the vaccine produced by Pfizer-BioNTech. The FDA granted EUA on Dec. 11, 2020. The FDA appraisal of the Pfizer/BioNTech data is available on the FDA website.
- The advisory committee to the FDA recommended EUA for a second vaccine, produced by Moderna. The FDA granted EUA on Dec. 18, 2020. The FDA appraisal of the Moderna data is available on the FDA website.
- The Pfizer-BioNTech COVID-19 vaccine was also granted EUA in United Kingdom (U.K.) and vaccine administration began there on December 8, 2020.
- On Dec. 9, 2020 the Pfizer-BioNTech COVID-19 vaccine was approved by Health Canada, the regulatory agency of Canada, and vaccine administration began there on December 14, 2020.

Are dentists included in the first wave of vaccination?

- Final authority rests with the individual states to prioritize the populations to be offered the vaccine.
- Current CDC guidance indicates that once a COVID-19 vaccine has EUA during the initial phase of the COVID-19 vaccination program the vaccine should be offered to both:
 - health care personnel with potential for direct or indirect exposure to patients or infectious materials;
 - residents of long-term care facilities.
 - This is based, in part, on the National Academies of Science, Engineering and Medicine (NASEM) framework of a phased approach for equitable allocation of the vaccine, which prioritizes health care workers (including dentists and dental hygienists) and first responders in Phase 1a.
- A map of the U.S. with hyperlinks to state and local information about population vaccination prioritization details, as well as any information about dentists' ability to vaccinate, can be found on the ADA website.

Safety of the COVID-19 Vaccines

Data on safety of the Pfizer-BioNTech and Moderna vaccines is very good though the fatigue, fever, headache, and achiness that some people will experience might be sufficient to miss a day of work.

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- The safety profiles for both vaccines are similar across age groups, genders, ethnic and racial groups, as well as those with or without medical co-morbidities.
- People who have previously had an anaphylactic reaction to any vaccine or any component of the Pfizer-BioNTech or Moderna vaccines should not receive these vaccinations. The standing order for the vaccine indicates that those who have experienced a severe allergic reaction to any foods or other medications should be under medical observation for 30 minutes after vaccination.

Effectiveness of COVID-19 Vaccines

- Data suggest that widespread use of the Pfizer-BioNTech, Moderna, and other vaccine(s) with similar safety and efficacy profiles have great potential to reduce the circulating levels of this virus.
- Data on the Pfizer-BioNTech COVID-19 and Moderna vaccines are better than had been required by the original FDA efficacy criterion in phase 3 clinical trials.
- Current guidance from the CDC is that the second dose should be the same product as the first dose as per clinical trial protocol.
- Monitoring where vaccines are being administered to populations is ongoing; some adverse reactions have been reported in individuals who have had previous serious allergic reactions to previous vaccines.

Information about the clinical trials

	Pfizer-BioNTech	Moderna
Link to FDA appraisal	Pfizer_BioNTech data	Moderna data
of the submitted data		
Vaccine	BNT162b2	mRNA-1273
ClinicalTrial.gov	NCT04368728	NCT04470427
registration		
Number of people	36,621 participants	27,817 participants
enrolled in the phase 3	randomized 1:1 to	randomized 1:1 to
clinical trial	vaccine or placebo	vaccine or placebo
Age of people in the	≥ 16 - 85 years of age	≥ 18 - 87 years of age
trial		
Second vaccine dose	21 days after 1st dose	28 days after 1st dose

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Safety

	Pfizer-BioNTech	Moderna
Injection site reactions	84%	92%
Flu like symptoms		
Fatigue	63%	69%
Headache	55%	63%
Muscle pain	38%	60%
Joint pain	24%	45%
Chills	32%	43%
Fever	14%	15%
Non-fatal serious	<0.5% in vaccine group	1% in vaccine group
adverse events	<0.5% in placebo group	1% in placebo group
Deaths in the reporting	N=2 in vaccine group	N=6 in vaccine group
period	N=4 in placebo group	N=7 in placebo group

Efficacy

	Pfizer-BioNTech	Moderna
Vaccine efficacy	82.0% (75.6, 86.9)	80.2% (55.2,92.5)
against confirmed		
COVID-19 disease		
after 1 dose (95% CI)		
Vaccine efficacy	95.0% (90.3, 97.6)	94.5% (86.5,97.8)
against confirmed		
COVID-19 disease		
after 2 nd dose (95% CI)		

The ADA will continue to monitor developments related to COVID-19 vaccine approval and administration on behalf of the profession and public. Please visit ADA.org/virus for information for dental professionals and MouthHealthy.org for information for patients.

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