

COVID-19 and Dentistry: August 2020 Update

Dentists have been treating patients during the COVID-19 viral pandemic in North America for eight months. As a profession, we take great pride in our skillful infection control, and it has been effective so far. Some of our patients were already infected with COVID-19 when they came to our dental offices, although we may not have known it at the time. [Despite that, no known cases of transmission of COVID-19 infection have been reported from patient to the dental team or vice versa at any routine dental visit. No clusters of any airborne diseases like COVID-19 have spread in dental offices in the world to date.](#)

SARS-Cov-2, the virus that causes COVID-19, is found mainly in the lungs and nasopharynx. The mouth is at the intersection of these two regions. This has raised concerns that aerosol-generating dental procedures might transmit the virus. Some dental procedures generate aerosols, but air and water from our syringes and handpieces dilute any virus in these aerosols. We also use high-volume suction and rubber dams to reduce aerosols even more (1).

The UW School of Dentistry has implemented additional safeguards in response to these concerns:

- We pre-screen patients, staff, students, and faculty for COVID-19 symptoms before we permit them to come into our facilities.
- We do not allow any unnecessary visitors.
- Fewer patients are appointed each day, so we can maintain 6-foot distancing between people in our clinics and waiting rooms.
- We are installing higher plexiglass partitions between clinic cubicles. Until they are complete, we are occupying every second cubicle.
- Our dental team wears enhanced PPE including face shields, high-filtration face masks, hair covers, and disposable gowns.
- We have an isolated clinic for patients who would be at higher risk for complications if they developed COVID-19.
- If patients are scheduled for an aerosol-generating procedure, they receive a COVID-19 test first at no cost to themselves.
- Our COVID team meets every week to discuss the latest scientific developments and any possible changes in our protocols.

At the UW School of Dentistry, with our current enhanced measures, no known cases of transmission of COVID-19 between patients and dental care providers have occurred, despite thousands of patient encounters during aerosol and non-aerosol generating procedures.

Medical procedures are at higher risk for creating infectious aerosols, because those procedures (such as anesthesia and intubation) do not use water and may be in the viral reservoir of the nasopharynx and lungs. An aerosol from an infected patient would contain a higher concentration of virus, so there would be a higher risk of infection being passed on. Even then, there have been no known cases of transmission of COVID-19 between patients and

health care workers (HCW) who followed UWMC safety protocols at the four UW Medical Center hospitals after thousands of COVID-19 patient encounters. Almost all known cases of COVID-19 transmission to HCW in North America have resulted from lack of adequate personal protective equipment (PPE) when stocks of equipment had been depleted.

Reports of COVID-19 cases and deaths have dominated the news over the past few months, but the facts strongly support that dentists, dental hygienists, dental assistants, dental students, and other HCW can safely treat patients in the dental setting during the COVID pandemic, and patients can feel confident in safely returning to the dental office.