

# Investing in Patient Safety

## Why a Large Pediatric Dental Practice Didn't Hesitate to Make a Significant Capital Investment During an Unprecedented Pandemic

Kids Care Dental & Orthodontics is committed to protecting the health, safety and well-being of all patients and staff. Embedded in the organization's culture, from the senior executive team down, the priority focus is patients. In early 2019, when COVID-19 surfaced in the United States, Kids Care was busy researching the best ways available to keep its patients safe — no small feat during a pandemic unlike anything experienced in the past 100 years.



### EXTRA STEPS TO PROTECT PATIENTS AND STAFF

The nature of dental care — using mechanical tools, such as tooth polishers, suction devices, and drills inside mouths — creates many opportunities to come into very close contact with viruses and bacteria. Prior to the coronavirus outbreak, tremendous emphasis was placed on potential risk of infection from bloodborne pathogens. COVID-19 shifted the focus to the potential for airborne spread from a new, novel pathogen, during the routine course of dental treatment. Kids Care knew it had to take extra steps to protect patients and staff.

As early as February, Kids Care began to research products to prevent the spread of aerosolized particles that form during most dental procedures — everything from routine cleanings to filling cavities. The first equipment added to practice locations were extra oral suction units that could be placed directly over a patient's mouth while performing procedures. These units draw in the air near where they are placed to pass through a filter and trap particles of potential virus and/or bacteria.

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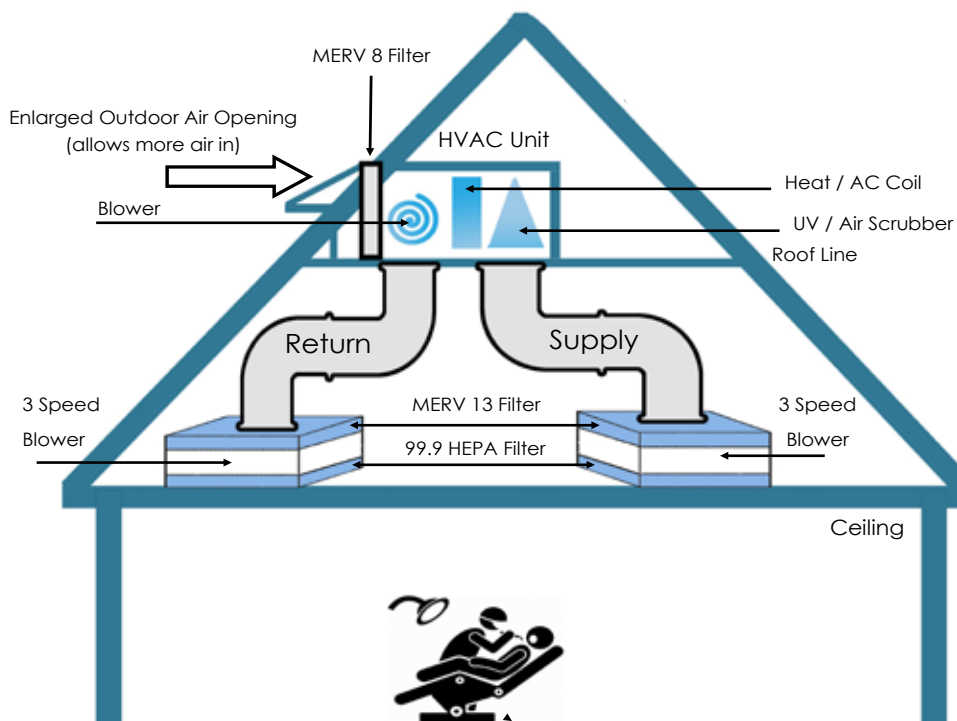
Angel Tobar,  
Chief Compliance Officer

## PORTABLE IS GOOD, BUT NOT ENOUGH

While the extra oral suction units were helpful, it wasn't a comprehensive stand-alone solution to protect patients. These portable units only tackled the filtration of aerosolized particles but didn't address the building's ventilation. Ventilation is the circulation of air through a building and is a critical component of creating and maintaining a healthy environment. After thoughtful research that included evaluating nearly one dozen possible solutions on availability, cost, science, and protection benefits, Kids Care chose to make a significant capital investment and install medical-grade air management systems in 17 of its clinic sites, with plans to add these units to future sites. Kids Care affectionately refers to these units as “air scrubbers” — a name easily understood by even the youngest patients.

The air scrubber is an advanced air management system that uses turbo-charged fans, multi-level air filtration, and germicidal light units working within the existing HVAC infrastructure (ducts and vents). It works using HEPA and other high-capacity air filters along with ultraviolet light to filter air and remove 99.9% of airborne bacteria and viruses — including coronavirus. The air scrubber also brings fresh outside air into the buildings and dramatically increased air ventilation through the practice itself. By addressing both air filtration and air ventilation, this is the ultimate solution for dental offices and their patients.

“We had options on where to place the air scrubber filter units,” said Angel Tobar, chief compliance officer. “We could have selected a few strategic locations at each site. Instead, we chose the air scrubber equivalent of the ‘Tesla Model X’ option to install a filter unit over every bay chair, so no matter where a patient sits, every patient gets optimal benefit from the air scrubber.”



From a patient perspective, the air scrubber is unobtrusive. The vents look like regular ceiling tiles, and they can hear the system the way any HVAC system can be heard. But one of the things that sets the air scrubber apart from other units is how it cleans. The air scrubber is filtering the air in both directions — the air drawn in from inside the practice locations, and the air it brings in from the outside. The UV light lives inside the duct work and removes particles before the air flow reaches the other end.



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**Dr. David Trent, MD, DDS**  
Chief Medical Officer

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*For more information on Kids Care preparedness and safety protocols for COVID-19, contact:*

**Andrea Hill**  
Vice President, Strategic Marketing & Brand Development  
[ahill@kidscaredental.com](mailto:ahill@kidscaredental.com)

## LEADING THE WAY

The triple-action protection provided by the air scrubbers took patient safety and protection at Kids Care to the next level, really reinforcing its commitment to improving health. Kids Care also is the first dental provider in California — pediatric or general — to use anything like the air scrubber. As such, making an investment like this involved taking a leap of faith. Since this technology isn’t common in the dental setting, there isn’t a lot of data that practices can use to encourage such a significant investment.

“The air scrubber was the most comprehensive, and most expensive, option,” said David Trent, M.D., D.D.S., chief medical officer. “We just wanted to mirror what hospitals have been doing and create the safest environment possible. In the medical setting, there isn’t any conversation around the cost of managing air, it’s an expectation and just the cost of doing business.”

Dentistry is an industry of small businesses and small business owners. Many area dentists didn’t know something like the air scrubber exists, nor were they aware they could purchase technology similar to what is found in hospitals. The addition of the air scrubber is something Kids Care dentists don’t hesitate to talk about with colleagues. Through these conversations, about 80% of colleagues ask how they can bring an air scrubber into their own practices.

“We want to set the standard of clinical and safety expectations in the dental community,” said Enrique Figueroa, vice president of operations.

## LIFE BEYOND COVID-19

The addition of the air scrubber has been an asset during the COVID-19 pandemic. However, it has lasting benefits that will remain long after this pandemic ends. The air scrubber will always remove virus and bacteria particles from the air, whether it is coronavirus, influenza, or tuberculosis. The air scrubber also will protect dental professionals from the health risks associated with chronic exposure to dental particles and nitrous oxide, a common gas used in dental procedures; as well as repeated exposure to the chemicals in the cleaning products used to disinfect the clinics.

“I think after this pandemic ends, there will be a new appreciation for air management,” said Dr. Trent. “This will become the new norm, whether the concern is a novel pathogen or occupation exposure, there will always be a desire to deliver and receive care in the safest and cleanest space possible.”