**STEP 1:** Start with the right equipment. Not all vacuum technologies are created equal.

**Did You Know:**
During procedures, a spray mist cloud of aerosols can spread up to 2M/6.6’ away from the patients’ oral cavity. Containing and safely evacuating these aerosols before they leave the mouth is the key to a safe working environment. That's why Air Techniques uses Regenerative Side Channel Blower technology in the Mojave because it maintains the highest flow rates over Claw and Rotary Vane equipment.

To maximize flow, consider recommending the following to your doctor:

- **Fully Expandable** – Multiple pump systems distribute workload evenly to deliver constant suction as demand grows in practice
  - **AT Recommendation:** Mojave is modular and can support up to four parallel units supporting up to 60 simultaneous users

- **Go Big** - Having more than enough vacuum is always better than not having enough vacuum when you need it
  - **AT Recommendation:** Consider using the next step up from the vac you would have recommended (ex. V3 --> V5, V5 --> V7)

- **Go Dry** – Liquid ring pumps deliver high negative pressures, but dry vacuums deliver the flow and the high negative pressures combined
  - **AT Recommendation:** Talk to the doctor about upgrading from a wet vacuum to a dry vacuum

A common misconception is that raising the negative pressure setting on your vacuum will also increase its flow. **IT WILL NOT!** Raising this setting beyond ten inches of mercury (10inHg) can lead to a potentially harmful situation for the patient if not used correctly and should only be utilized for surgical applications.
**STEP 2: Your vacuum is only as powerful as the plumbing it’s connected to.**

Make sure the current plumbing can handle the flow. Plumbing size restrictions are often the culprit when it comes to poor vacuum performance. Much like the way cholesterol affects the arteries in your body, the build-up of debris within the inner walls of vacuum pipes restricts air flow. Make sure to recommend that your doctor instruct his or her staff to clean vacuum lines daily and use a non-foaming cleaner like CleanStream. However, if the current pipes are too small to begin with, no cleaner will be able to fix that. Older plumbing styles that were designed to be used with liquid ring pumps often utilize pipe sizes that are too small for high flow technologies like Regenerative Side Channel Blowers. Unfortunately, the only way around this is to replace the plumbing with larger pipe sizes. Next step is to develop a plan to optimize your doctor’s practice plumbing layout.

**STEP 3: Get it out!**

Just because it was sucked through a vacuum, doesn’t mean it got out of the practice! Don’t be fooled, what happens in the mechanical room, doesn’t necessarily stay in the mechanical room. Open floor drains are often most used with liquid ring pumps (wet vacs). The aerosols that were taken from the patient can escape into the mechanical room and then migrate back into the practice. To remedy this, make sure to recommend the use of a Hydromiser or Air/Water separator accessory that requires an external vent line outside of the practice. Or use dry vacuum systems with built-in external venting requirements. This guarantees that everything going through the vacuum lines exits the building!