Dr. August de Olivera is a household name in digital dentistry. A lecturer on chairside CAD/CAM since 2005 and on guided surgery since 2009, Dr. de Olivera is no stranger to integrating new technologies for clinical use. As an early adopter of 3D printing, he has championed the idea of using the technology in dentistry since the early desktop FDM days at the turn of the decade. As for the moment when 3D printing stepped into his regular workflow? “The tipping point was surgical guides,” says Dr. de Olivera, “I was probably spending about two to three grand a month on surgical guides, and there were a lot of guys making their own guides for under 30 dollars apiece.”

This kind of savings made bringing a 3D printer in-house a no-brainer for Dr. de Olivera. “Usually when we buy dental equipment we’re worried about the cost. The cost [of a 3D printer] is pretty negligible,” he says, “I got in on some of the early 3D printing systems out there and quickly found SprintRay Pro... And that has by far been our workhorse since then.”

Dr. de Olivera uses his SprintRay 3D printers primarily for the production of surgical guides and models for making clear aligners. As these treatment types make up a big part of his daily workflow, he’s noticed a big difference in delivering these treatment types. “We’ve reduced the price of our aligner cases by around 20 or 30 percent, which allows us to be competitive,” he says, “Nowadays we have at-home aligner companies and we can compete with those companies because we’ve dropped our price.”
Beyond the Financial ROI

Of course 3D printing isn’t just about lowering costs - case acceptance is a crucial component of bringing this technology into the office. Less expensive treatments give patients a reason to say yes. “I probably did, four years ago, maybe two or three aligner cases per year and now we’re doing at least that per month,” Dr. de Olivera says, “So patients are definitely saying ‘yes’ more to aligner treatment. And one of the cool things about it is that people always lose or break aligners. So we have the ability to just 3D print another model and make them another aligner that they can get the next day.”

“Our turnaround time for most aligners is about a week and it used to be a couple of weeks. My turnaround time for surgical guides was a week and now it’s a day - I can do same-day guided surgery,” Dr. de Olivera says. This flexibility is one of the key components of in-office 3D printing. Offering dental professionals the maximum number of options in any given situation empowers them to provide a high standard of care to their patients. But one barrier that can come with flexibility is increased workflow complexity.

For those who want to learn how to control the entire process from treatment planning to design to printing, there are dental CAD software suites. For those who’d rather eschew the learning curve that comes with appliance design, there are many options for 3rd party digital design available today. “There’s a number of design houses like Full Contour. There are designers in China that can design a crown for $2.50 and $3.50 better than what I can design in my CEREC. So if I don’t need it as a same-day restoration, I can pay two or three dollars and have it done the following day.”

Choosing the Right Hardware

As an early adopter to 3D printing technology, Dr. de Olivera is widely considered an expert on the subject. He uses his printer every day, and has made it a hallmark of his practice, educating his patients and printing toys and other trinkets for his patients and their children. So what does he look for in a printer? “For me there’s three big things. One is the size of the build
Dr. August de Oliveira graduated from dental school in 1997 from the University of Washington and completed his General Practice Residency in Los Angeles in 1998. Dr de Oliveira has been lecturing on 3D technology since 2004, when he started as a CEREC Basic trainer. Since 2008 he has been involved with Implant Direct’s R and D department developing Guided Surgery Software and Hardware and testing their CAD Milled Bars and Substructure Department. Dr de Oliveira has written two books on Implantology: Implants Made Easy and Guided Implantology Made Easy. He has been involved with beta testing Sirona’s Sidexis Program, as well as developing the Opti and CEREC Milled Surgical Guides. Dr de Oliveira lectures nationwide for Sirona on the Galileos Cone Beam system and Sirona Guided Implant Surgery. He also teaches for Implant Direct at their Las Vegas Educational Facility and with the Engel Institute in Charlotte. Dr de Oliveira lives and practices in Los Angeles CA.

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