



# A Workflow With No Limits

Dr. August de Oliveira fills us in on how he leverages 3D printed surgical guides for better planning, a rapid ROI, and a tightly integrated seamless workflow.

“

***The process as simple as just scanning, sending it to SprintRay, and allowing them to take care of the design process. After that, you just push a button and go.***

A household name in digital dentistry, Dr. August de Oliveira has been a lecturer of chairside CAD/CAM since 2005 and guided surgery since 2009. As a pioneering figure in the world of dental 3D printing, Dr. de Oliveira has consistently championed the use of this technology in dentistry, and his innovative approaches to the profession have been adopted by dentists internationally. Dr. de Oliveira has written three books on implants and is the co-founder of the magazine Digital Enamel. Currently, he uses 3D printing as part of his everyday practice for various clinical purposes like the fabrication of aligners, temporary restorations, and surgical guides.

As for what made him embrace 3D printing in the first place as part of his regular workflow? “The tipping point was surgical guides. That’s what gravitated many people, including myself, to 3D printing,” says Dr. de Oliveira. “I was probably spending two- to three-thousand dollars a month on surgical guides, and there were a lot of guys making their own guides for under \$30 a piece.”

# \$350

Per Surgical Guide\*

10-day Turnaround

# \$110

Per Surgical Guide\*\*

3-day Turnaround

Traditional Surgical Guides

VS

SprintRay Surgical Guides

\*Average cost for traditionally-fabricated full-arch surgical guide

\*\* Cost including design fee and materials cost

3D printing drastically reduces the production cost and lead time of surgical guide fabrication, and this kind of savings made bringing in a 3D printer a no-brainer for Dr. de Oliveira. "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 MoonRay and SprintRay Pro, and those have been our workhorses since then."

### 3D Printed Surgical Guides – A Better Way to Plan

So what are surgical guides, and how are they helpful to your practice? Simply put, surgical guides are a template used during surgery to assist in the proper placement and angulation of dental implants. They replicate the surfaces of the intraoral environment and allow the clinician to drill implants with maximum accuracy, predictability, and precision.

Traditional methods of surgical guide fabrication can be labor-intensive and time-consuming. Outsourcing surgical guide fabrication to dental laboratories is costly and the available kits on the market are often primitive and messy.

This is where SprintRay provides a better solution. 3D printing allows for the cost-effective and quick fabrication of surgical guides, in-office. By offering reduced lead times and an efficient method of surgical guide fabrication, 3D printing provides a much better, faster,

and more accurate pathway to guided surgery. "My turnaround time for surgical guides was a week and now it's a day - I can do same-day guided surgery," says Dr. de Oliveira.

Additionally, having an in-office 3D printing ecosystem streamlines the dental workflow and increases flexibility, especially for busier clinics. "If you have a busy office, you don't want your mill to be involved in an hour of milling. You want to keep it open for other things. So 3D printing is just a better way to go," says Dr. de Oliveira. "When you mill, especially on a 3 or 4 axis mill, you're limited by the direction in which these mills can go. But 3D printing doesn't care about that."

“

***My turnaround time for surgical guides was a week and now it's a day - I can do same-day guided surgery.***



### Capture Data



### Submit to SprintRay Cloud Design



3D print



Wash



Cure

### In-office Fabrication



### Sterilize



### Place Appliance for Surgery

## The SprintRay In-Office Workflow

Having a seamless workflow is a crucial aspect of any successful dental practice. While 3D printing has been gaining momentum amongst dental clinicians, some remain hesitant about the potential complications of switching over to a fully digital workflow.

To address these hesitations, Dr. Oliveira often recommends SprintRay, who creates a 3D printing ecosystem that is accurate, flexible, and is easy to embed into the existing clinical workflow - all of which are important deciding factors for choosing an in-office fabrication system. "What I really like about the SprintRay products is that they're very easy to use. The printers are very easy to use, the resins are reasonably priced," says Dr. de Oliveira. "It's just a very easy system to use. I can use it myself and I can train my team to use it."

Today, the biggest complication in a digital workflow is often the design step of 3D printing. Once the patient's digital anatomy has been captured, the raw intraoral scan and CBCT data must be processed and used to plan a surgical implant guide. Many outsource this step, while others prefer to handle it themselves by mastering CAD design software. But CAD software has a steep learning curve and is time consuming, while traditional outsourcing can suffer from high costs and slow turnaround times.

SprintRay Cloud Design requires no design software knowledge on the part of the clinician. It allows the seamless ordering and printing of the desired dental appliances with just a few clicks and without ever having to leave the SprintRay ecosystem, providing a truly frictionless workflow. "The process is as simple as just scanning, sending it to SprintRay, and allowing them to take care of the design process. After that, you just push a button and go," Dr. de Oliveira says.

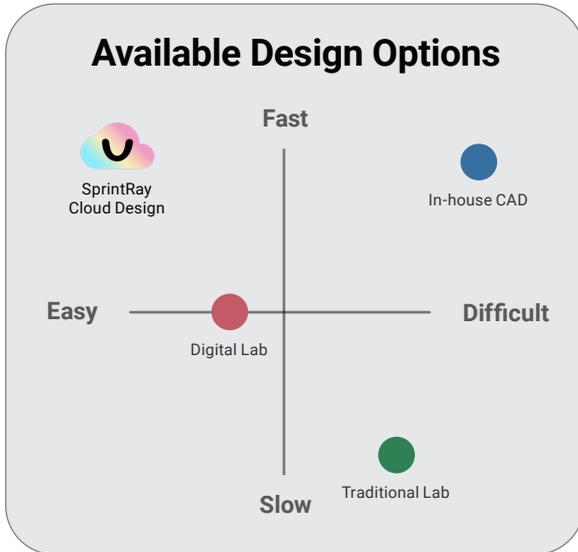
## The Two-printer Advantage

Currently, Dr. de Oliveira owns both a SprintRay Pro 95 and a SprintRay Pro 55 as part of his practice, using them in conjunction with each other to create a more efficient workflow. "Whenever you have one printer, you're going to be quickly forced to either take longer to do your jobs or buy a second printer," he says. "Even though the Pro 95 is a very fast printer, when you're printing six to ten models at a time your printer is going to be tied up for some time. So buying a second printer is usually the way that doctors go. You could buy another SprintRay Pro 95. However, buying a Pro 55 in addition to the Pro 95 just opens up that whole new world of implant restoratives".

As for the difference between the two printers and the various uses you can get out of them?

"The Pro 55 has the same exact workflow that you would expect from the Pro 95. Super easy software, super easy ways of owning

## Available Design Options



and cleaning the printer... We get that high level of detail we need for restorations. The doctors that would gravitate towards the Pro 55 would be those that are doing big cases, cases requiring dentistry done in more than two visits, doctors who are doing full arch implantology, or doing a lot of implant restorations requiring an implant analog model.”

As for who should get involved in 3D printing, Dr. de Oliveira is bullish. For doctors who have a scanner, he sees investing in SprintRay as a no brainer. “Look, if you’re doing any clear aligner therapy, any surgical guides, you’ll pay for SprintRay Pro in months,” he says. “After that it’s all gravy. So I’d say definitely, right now is the time to get into 3D printing.”

Thanks to Dr. August de Oliveira and the staff at Sunrise Dental for their time in sharing their experience.

## SprintRay Ecosystem



### About Dr. August de Oliveira

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.