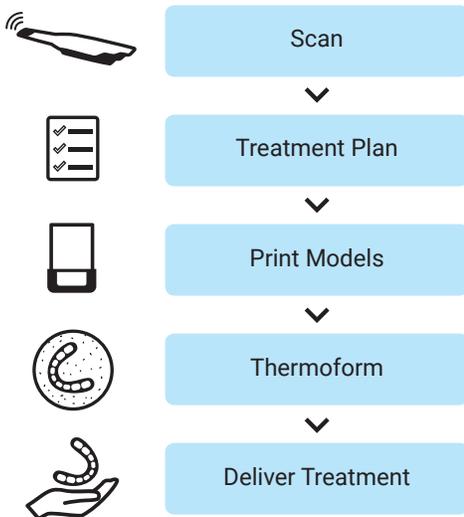




Dr. Baron Grutter: Pioneer of In-Office Clear Aligners

Aligner Fabrication Workflow



When it comes to manufacturing clear aligners in-office, Dr. Baron Grutter is one of the process pioneers. His videos offer a step-by-step workflow that's simple to follow, taking viewers all the way from case planning through 3D printing and post-processing. His popular in-person courses often focus on digital orthodontics and 3D printing, but his expertise and coursework extend into many specialties and disciplines.

Dr. Grutter owns Happy Rock Dental in Kansas City, Mo., where he has focused his efforts around digital dentistry. As for what prompted him to begin using 3D printing to manufacture aligners in-office, his decision was motivated by the economics of production. "Dealing with the larger labs have made aligners unnecessarily cost-prohibitive for many patients in my practice. Plus, I don't like being beholden to anyone else's schedule," he says.

For those unfamiliar, the workflow for creating clear aligners in-house begins with an intraoral scan of a patient's dentition. That file is imported into a software or sent to a digital lab, where the therapy is planned. Each stage of the treatment has an associated model, and those models are fabricated rapidly using a 3D printer. The models are then placed in a positive pressure or suck-down machine, where the aligners are formed over the models and then trimmed for delivery.

Dr. Grutter's Top 5 Tips to Increase Clear Aligner Case Acceptance

- 5 Have before and after photos of similar patients.
- 4 Get 7-9 photos on ALL new patients, place them on a large screen, and discuss openly and without judgment with the patient.
- 3 Virtual smile design software can help the patient see the potential in VERY short time.
- 2 Have financial options to make aligners affordable via monthly payments.
- 1 Design and fabricate your aligner cases in-house, GREATLY reducing your overhead and making it more affordable for your patients!



BONUS: When you do #1, you'll find smaller cases that would typically not be worth outsourcing now becoming an option. And the more cases you do, the more word of mouth will generate even more cases. Not only that, but your team will begin identifying more opportunities to help your patients.

"By doing it in-house, my overhead is significantly reduced," Dr. Grutter says. "This makes the price more attractive and improves case acceptance." And improved case acceptance is huge for a treatment that's known for its high earning potential. Speaking of practice growth, creating clear aligners in-house also can improve the patient experience. Dr. Grutter finds the in-house method to be more predictable compared to outsourced production, since he prepares the cases himself.

But do the costs of purchasing all the equipment and materials outweigh the benefits? At only around \$2 per full-arch model in materials and with the relatively low price point of desktop 3D printers, the return comes quickly, and not just for high-volume clinics. "Compared to using the larger labs, it takes about 3-4 cases [to break-even on the investment]," Dr. Grutter says.

The applications of 3D printing extend far beyond just the production of clear aligners. Though they present a well-defined path to return-on-investment, 3D printers can be used to manufacture all kinds of parts for treatments. "We routinely print surgical guides, occlusal guards, temporary dentures, implant hybrids, etc," Dr. Grutter says, "It has many, many uses in our office."

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Dr. Grutter DDS

Advances in materials continue to improve the scope of care that 3D printing enables, with new and improved formulas being released all the time. For companies that verify and allow the use of 3rd party resins, this means that the investment continues to evolve with time.

As for choosing exactly which 3D printer to invest in? "I use the MoonRay almost exclusively," Dr. Grutter says, "I'm waiting for the Pro to remake my processing videos."

Thanks to Dr. Baron Grutter for this interview.



About Dr. Baron Grutter

Dr. Baron Grutter attended Graceland University for his undergraduate degree and received his dental degree from the University of Missouri - Kansas City. He has focused his practice around digital dentistry, particularly in the areas of Orthodontics, Implantology, and Cosmetics.

Outside of clinical practice, he serves as the project manager of Blue Sky Bio Orthodontics. He spends much of his non-clinical hours refining digital workflows to optimize treatment outcomes

and efficiency. You can find many of his free educational videos on his website (www.BaronGrutterDDS.com) or by following him on YouTube ([YouTube.com/BGrutterDDS](https://www.youtube.com/BGrutterDDS)), Facebook ([Facebook.com/BaronGrutterDDS](https://www.facebook.com/BaronGrutterDDS)), or Instagram ([@BaronGrutterDDS](https://www.instagram.com/BaronGrutterDDS)). He also teaches courses on Digital Dentistry, Digital Orthodontics, Guided Surgery, and 3D Printing in Dentistry. He has a true passion for working with and helping his colleagues to master all that digital technologies have to offer the dental field.