

**Carbon<sup>®</sup>**

CASE STUDY

# **Going Digital Allowed Me to Deliver the Best Denture Possible for My Patients**

**Featuring Dr. Lori Trost, DMD**

Interested in understanding what digital production for dentures could look like for your dental practice? Learn from Dr. Lori Trost, DMD, how she transitioned to a digital workflow for dentures and was able to improve patient experiences, reduce overall clinical time, and increase productivity.



# Dr. Lori Trost, DMD, is an accomplished dental educator, key opinion leader, and clinical evaluator for innovative dental products.

Dr. Trost is the founder of Trost Dental, a high-tech dental practice with expertise in cosmetic dentistry and sleep appliances. In her practice, Trost blends a one-on-one, patient-focused approach with the latest dental care innovations and technologies to give her patients the best possible experience at the dentist.

After experiencing the limitations of traditional denture manufacturing methods—including broken dentures, poor fit, multiple office visits, and more—Trost had come to dread the occasional denture patient who would come into her office. This all changed when the pandemic hit, and a desperate patient came into her office with a broken denture. Trost found that digital processes delivered the patient satisfaction, denture quality, and competitive edge that both her patients and her practice needed.

## In this case study, we will explore:



**Why you should consider a new denture production method for your practice**



**How your practice would improve with digital denture production**



**How you can get digital dentures for your patients**



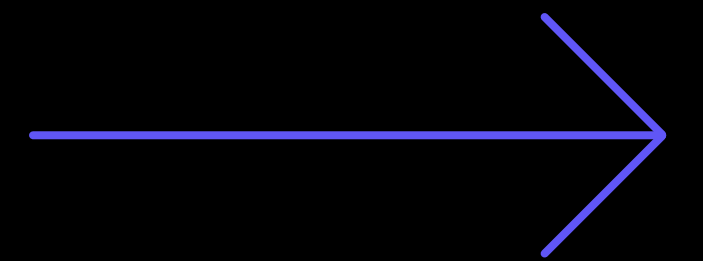
**Dr. Trost's recommendations for adopting a digital denture workflow for your practice**





QUESTION 01

# Why Should I Consider a New Denture Production Method for My Practice?



Dr. Lori Trost, DMD, had been using traditional denture methods she learned in dental school since the start of her career. This training was limited to making a single denture using the same methods dentists have relied on for over fifty years, leading to unsatisfactory results and unhappy patients. Due to the unreliability and limitations of these methods, she was hesitant to prescribe dentures to patients because of their finicky nature.

## Traditional Denture Production Comes Up Short

Traditional impressions and wax bites often produced a denture that did not fit properly, resulting in patients with sore spots, unable to eat, and having to come back for repeated office visits for adjustments. Additionally, traditional dentures often had weak points due to the inconsistencies of traditional methods and materials. This resulted in fractures or a denture in two pieces. These issues led to multiple follow-up appointments, excessive clinical time, and reduced productivity for Dr. Trost and her employees.

**Do these problems sound familiar? We thought so.**

## But Is This the Best Possible Experience for My Patients?

Trost recognized that her traditional denture production methods were not giving her patients the best experience they could have. After hearing from her laboratory about the improved quality of dentures made using Carbon Digital Light Synthesis™ (Carbon DLS™) technology, Dr. Trost began to see how this innovative technology could be the exact solution that both her patients and her dental practice needed.

***“Before Carbon, I didn't feel like I ever had the proper education or the proper knowledge in which to offer really amazing dentures. Patients would come in with traditional dentures that fit horribly. And because of that poor fit, they're using adhesives that really don't benefit the tissue and certainly don't benefit the feel of the denture for patients.”***

Dr. Lori Trost, DMD



## 3D Printed Dentures\*

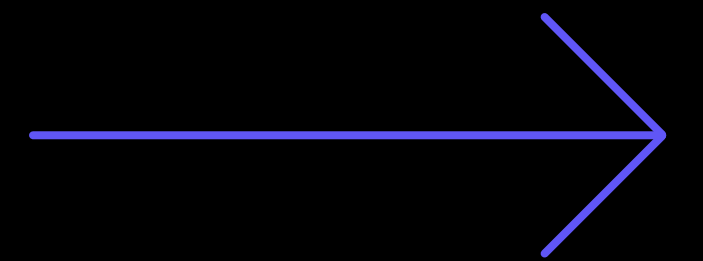
\*Printed on the Carbon Digital Light Synthesis™ platform with Dentsply Sirona's Lucitone Digital Print™ 3D Denture System

[GET A SAMPLE PART](#)



QUESTION 02

# How Would My Practice Improve with Digital Denture Production?



By transitioning to digital processes, Dr. Trost was able to align her patients' needs with her business' needs. Below we break down her patients' improved satisfaction and the clear, bottom-line impact Trost experienced after switching to digital dentures.

## Improved Patient Satisfaction

### A More Durable Denture

With premium materials like the Lucitone Digital Print™ resin, Trost's digital dentures proved stronger and more durable than traditional dentures, making them much less likely to break from being dropped or fracture from patient use. The material properties of the Lucitone Digital Print on the Carbon platform result in a denture that has 2X the work-of-fracture as a traditional high-impact denture.

### Better Fit, Fewer Adjustments

Trost no longer had to worry about wax moving during the try-in appointment because the printed monolithic try-in denture allowed her patients to feel how their final denture will function, unlike the traditional wax try-in that is not functional. She was able to give her patients a denture with a significantly better fit that required fewer adjustments thanks to the high accuracy of Carbon DLS technology. With a better denture fit came fewer adjustments and fewer office visits for the patient.

Durability and fit combined meant restored and improved chewing function for Trost's patients, many of whom reported eating salads, corn on the cob, and steak with ease!

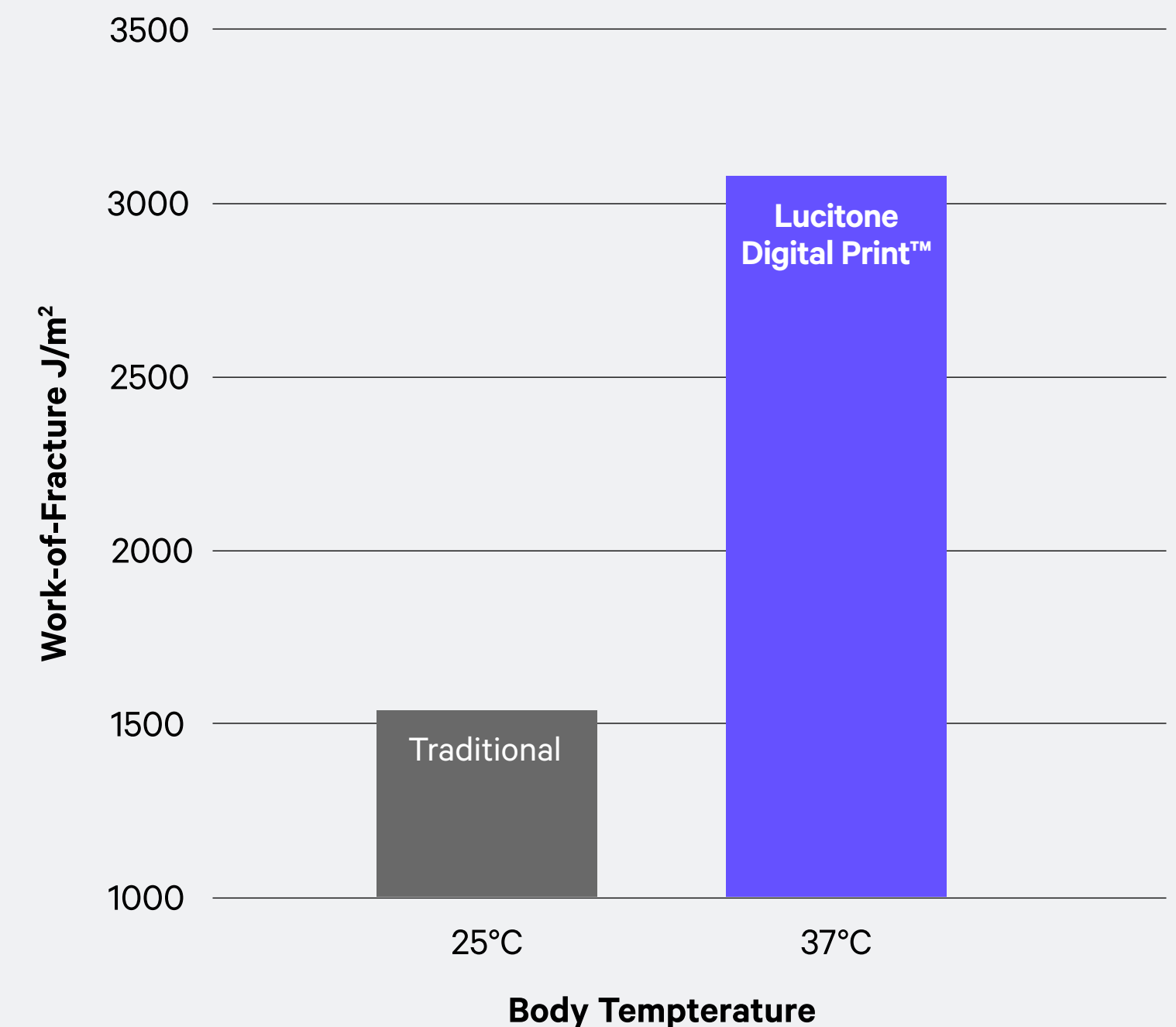
### Easy Replacements

Because patients' dentures are kept as digital files in the cloud via the partnering dental lab, replacement turnaround times have been drastically shortened. Patients no longer have to re-take impressions or wait weeks for a replacement.



## Body-Activated Material

The Lucitone Digital Print™ resin has a thermally-responsive reaction that creates a twofold increase in the total work-of-fracture material property. While being worn, it immediately responds to body temperature to have amplified material properties, ultimately resisting breakage and preventing the worsening of any existing cracks or fractures.





### **More Natural Smiles**

A digital workflow allowed Trost to make changes to a patient's smile easily. Since the setup is done on the computer using denture design software, changes can be done without the technician having to reset the teeth in wax. Trost could review the smile on her computer and remotely with the lab to make any changes, fine tuning the smile to get the most natural aesthetics possible.

### **Reaching Underserved Populations**

With fewer office visits needed, digital dentures have become a much more accessible dental solution for underserved patient populations. Through word of mouth, Trost's business has been able to serve this demographic and give them the beautiful smiles they deserve.

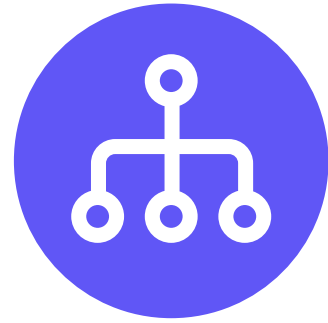
### **Improved Patient Relationships**

By relying on digital tools that streamline the overall workflow, Trost was able to play a more active role in the patient process, allowing her to build more meaningful relationships with her patients than she had been able to before.

***“I’ve never done something more professionally satisfying in my life. I feel like I’m helping patients in ways that I never imagined, and it just keeps getting better because I continue to feel and see this new level of happiness in my patients.”***

Dr. Lori Trost, DMD

## Clear, Bottom-Line Impact



### Simpler, Streamlined Workflow

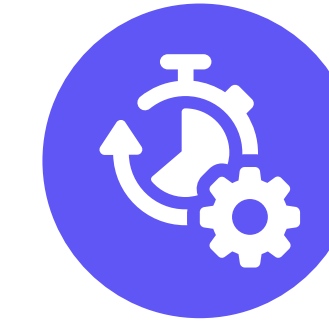
Analog processes resulted in high copy error between the first impression and the final denture due to the traditional materials, variable steps, and guesswork in between. Trost's new digital processes shortened overall workflow steps and removed the need for impressions, wax bites, stone models, a wax try-in, and traditional processing, which eliminated the copy error between first impression and final denture.



### Reduced Office Visits

With traditional dentures, Trost would have numerous unplanned post-delivery adjustment appointments and multiple follow-up calls from patients. After not hearing back from her patients for weeks after they had received their digital dentures, she decided to call them herself. The reason for radio silence? They had no reason to call, because the dentures were perfect.

In most instances with digital dentures, Trost was able to eliminate post-delivery adjustment appointments, speeding up the overall process. Fewer unplanned adjustment visits meant the operatories were available for revenue generating procedures.



### Increased Productivity

With an easier workflow and reduced clinical time, Trost found that she could experience the same productivity level of six employees using traditional methods with only three employees using digital methods.

***"With the digital workflow, we were able to achieve 33% higher productivity than we were doing with traditional dentures."***

Dr. Lori Trost, DMD



## Increased Profits

The impact of digital methods on Trost's denture practice is undeniable. Below we dive into the detailed metrics of this impact:



Decreased  
**chair time by 40%**



Increased case volume of dentures from  
approximately 7-10 per year to about  
**5 per month**



**Increased revenue**  
due to higher case volume  
(more implant cases)



Increased profit of  
**\$350-\$500 per arch**



Her **3-chair practice is matching the same revenue as her previous 6-chair practice** due to her new denture patients and the increase of implant cases.

*“With the accuracy of a denture produced on the Carbon platform, you don't have all the adjustments so you have fewer appointments. That alone really boosts your bottom line. Additionally, when you move into the digital realm, the workflow becomes so simple. I don't have to worry about wax or teeth moving when patients occlude or speak. On top of that, the material from Dentsply Sirona is better and stronger.”*

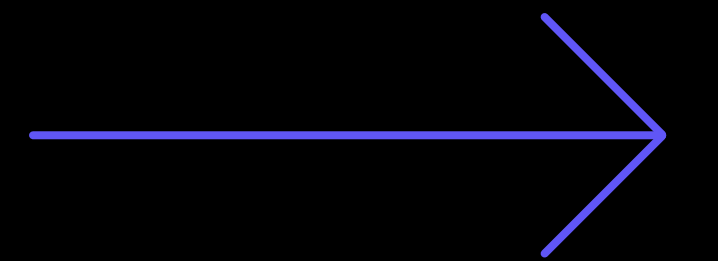
Dr. Lori Trost, DMD





QUESTION 03

**How Can I Get Digital Dentures for my Patients?**



## You can quickly transition into digital denture production in these three easy steps:

### Step 1

#### Find a Carbon Dental Lab Partner

The first step is to find a local dental lab partner to produce your dentures. Carbon's extensive network of dental production partners are experts in Carbon DLS technology and are certified in using the Carbon platform--from design through production.

[DENTAL LAB LOCATOR](#)

Prior to discovering Carbon-produced dentures, Trost was seeing about five denture patients a year. Since working with Carbon dental production partner May Dental Arts, she is now delivering about five 3D printed dentures a month.

### Step 2A

#### "I do not have an intraoral scanner."

##### Send Physical Impressions to Your Lab Partner

The best part about switching to digital denture production is that you don't need to change your existing clinical procedures to implement digital dentures into your practice. Once you take your patients' impressions and bite, simply send them to your dental lab partner, who will scan them to get your denture production started.

### Step 2B

#### "I do have an intraoral scanner."

##### Send Digital Impressions to Your Lab Partner

An intraoral scanner is not required to get started on digital denture production. But if you already have one, you can indeed use it to take digital scans of your patients' existing dentures to send to your lab partner. Having an intraoral scanner can help further streamline the process and reduce the number of clinical visits, but it is not required.

### Step 3

#### Sit Back, Relax, and Enjoy the Quality of Digital Dentures

Once your patient's impressions and bite are sent in to your lab partner, you can relax as you think of your streamlined workflows, your patient's reduced chair time, your improved efficiency, your lack of adjustments...the list goes on.

## Dr. Trost's Recommendations for Adopting a Digital Denture Workflow for Your Practice



Examine your current practice and ask yourself:

- Are my patients receiving the best experience possible through traditional denture production? How can I make it better for them?
- Are there any areas of improvement in my existing denture workflow? How can I make it more efficient?



Don't be hesitant to change. Digital solutions in the dental world are still in their infancy. Stay ahead of the competition by adopting innovative technologies now. What are you waiting for?



Find a 3D printer and material that fits your most important needs: material strength and durability, high accuracy for a better fit, consistency for improved aesthetics, improved overall functionality, streamlined workflows, reduced cost to produce, and reduced clinical time.



Build a relationship with your dental lab partner. Dental labs utilizing Carbon technology are at the forefront of the latest digital innovations and workflows. Tap into the knowledge of these dental labs so they can help you deliver the highest quality care for your denture patients while also opening up a new revenue stream for your practice.



### ABOUT LORI TROST

Dr. Lori Trost, DMD, is an accomplished dental educator, key opinion leader, and clinical evaluator for innovative dental products.

# Summary

By adopting digital denture production for her practice, Dr. Trost was able to improve the entirety of her practice as well as her patients' experiences. With a digital workflow, Trost's productivity increased by 33%, chair time reduced by 40% and she opted to take on 6X as many dentures cases per year. Her patients are happier with more durable dentures that fit great and that can be easily replaced if needed.

## Request a Free Digital Denture

There's no substitute for holding a 3D printed part in your hand. Request a free digital denture sample below to experience the quality of Carbon printed dentures.

This upper anterior denture sample is made with [Dentsply Sirona's Lucitone Digital Print™ denture materials](#), which represents a complete, validated, and approved workflow for producing dentures. This material is optimized for the Carbon platform and represents a paradigm shift in strength, aesthetics, and laboratory efficiency for digital dentures.

GET A SAMPLE PART



## Find a Dental Lab to Work With

Ready to kick off your digital denture production? Partner with a dental lab in Carbon's extensive network of dental production partners. These dental product manufacturers are experts in Carbon technology and are certified in using the Carbon platform—from design through production.

DENTAL LAB LOCATOR



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