ABSOLUTE DENTAL SERVICES

NADL LAB OF THE YEAR

A CLINICIAN'S GUIDE TO MODERN REMOVABLE WORKFLOWS AND MATERIALS



Restoring with greater efficiency and predictability using 21st century removables options!

www.absolutedentallab.com

Removables in the 21st century!

Over the last decade we have witnessed a true digital revolution in our industry. Most of these advancements in materials, however, were heavily focused on fixed restorative techniques with many suppliers competing for the very lucrative zirconia market.

Lately, we have been seeing a definite shift in material development aimed at the once almost forgotten removables market.

Digital dentures have become the next frontier, and although off to a rocky start, the latest materials and design softwares have again revitalized this solution.

The advantages of restoring a removable prosthesis with a digital workflow are immeasurable. Since the introduction of advanced smart polymers to support the design software, there is again an excitement around restoring the edentulous arch.

This protocol manual will discuss:

- Clinical workflow advantages and efficiencies
- Material advancements and improvements
- Digital archiving for future restorations

My team and I are very excited to partner with you on this digital journey!

—Conrad J Rensburg



Conrad J. Rensburg
N.D. & N.H.D. Tech Pret.

High End Printed Dentures... No Longer an Oxymoron!



forever denture
your FOREVER smile

SIMPLIFIED CLINICAL WORKFLOW
By utilizing the existing denture as a prototype starting point, the clinician can eliminate the unpredictable results a wax bite-rim can produce. This very predictable workflow allows for the fabrication and delivery of a new denture in as little as two clinical appointments. If an existing denture is not available, a traditional wax bite-rim workflow can be used to set the initial VDO.

DIGITAL SMILE ARCHIVING
Every Forever Denture is digitally archived for future retrieval. Absolute Smile Archiving services allows for effortless, future, new denture processing. A lost denture can be replaced with an exact copy in as little as 24 hours without further clinical appointments required. An emergency "copy" denture can be ordered with the final denture at a greatly reduced cost.



EXTREME STRENGTH
Forever Dentures are fabricated using Lucitone®® Digital Print material printed in a Carbon® M2 printer. This material is classified as a smart polymer, doubling its strength at body temperature. Lucitone®® Print material offers fracture resistance of 3000J/m² compared to hand processed Lucitone®® high impact acrylic at 1380J/m² and the ISO minimum impact standard at 900J/m². All Absolute Forever Dentures are delivered with a one time, 12-month "Full Replacement/No Repair" warranty.

DENTURE ARCHIVING FOR LIMITED MOBILITY PATIENTS
Archiving of patients' existing dentures allows for a replacement copy of a lost denture without requiring further clinical appointments.

PREDICTABLE IMMEDIATE TO FINAL DENTURE WORKFLOW
Immediate denture design is digitally guided by the patient's pre-op tooth position, bite, and clinicians' diagnostic requests. After healing, this archived data is used as a prototype starting point for the final denture. This process digitally indexes all the data from pre-op to final for a very predictable workflow.

REMOTE DIAGNOSTIC COMMUNICATION
Forever Dentures processed from existing prototype data is diagnostically designed and can be super-imposed over patient smile pictures. This allows for diagnostic remote review and fine-tuning by the clinician and the Absolute digital design team.

New Denture—Clinical Data Gathering

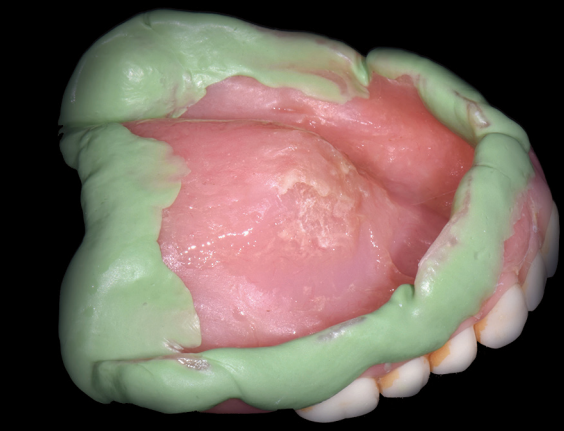
Modern-day technology is helping the progressive clinician to restore dentures with greater efficiency and much improved profitability. Utilizing a PVS wash relined existing denture (good or bad) combined with smile pics and diagnostic notes as a prototype starting point, greatly simplifies the restorative process. This gathered data can be captured using a chairside intra-oral scanner. If a scanner is not available, the denture with wash PVS impression can be sent to Absolute for digital indexing. This prototype workflow replaces the traditional bite-rim as starting point for the restorative process. In many cases the final denture processed from the prototyping can be delivered without the need for a try-in appointment.



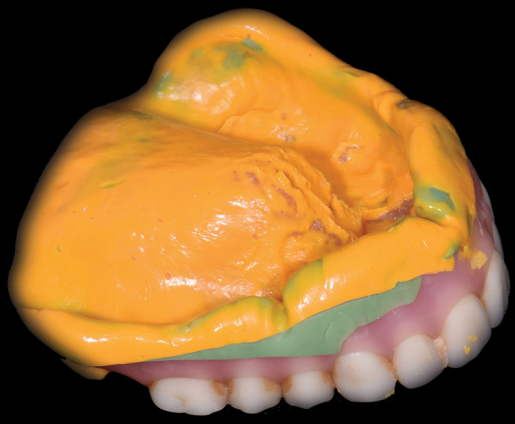
Existing denture



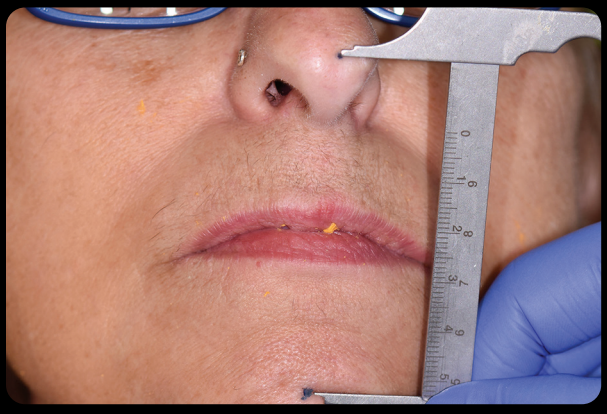
Pre-impression VDO registration



PVS border mold



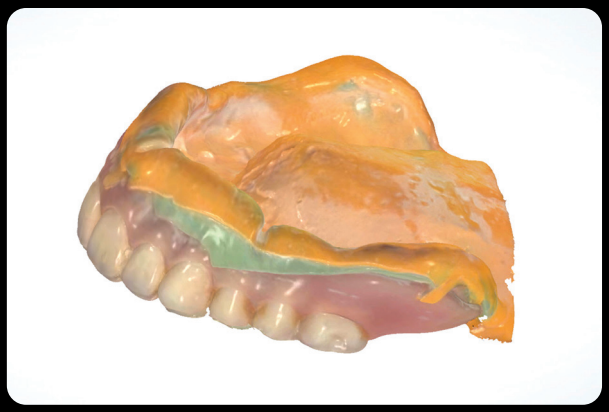
Wash impression



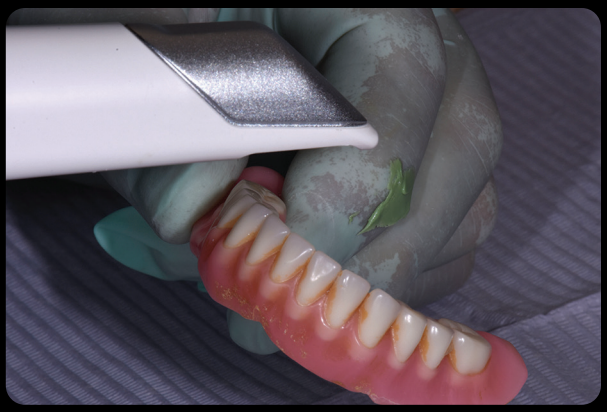
VDO verification with wash impression



360 Scan with IO or benchtop scanner



STL file of prototype



Opposing arch scan



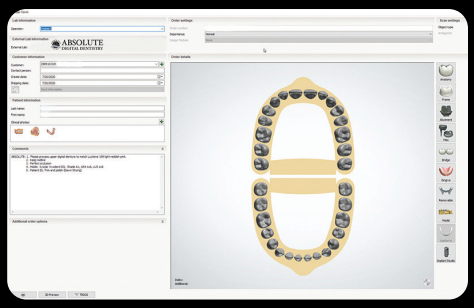
Opposing STL file



Bite scan



Transferring the data to Absolute



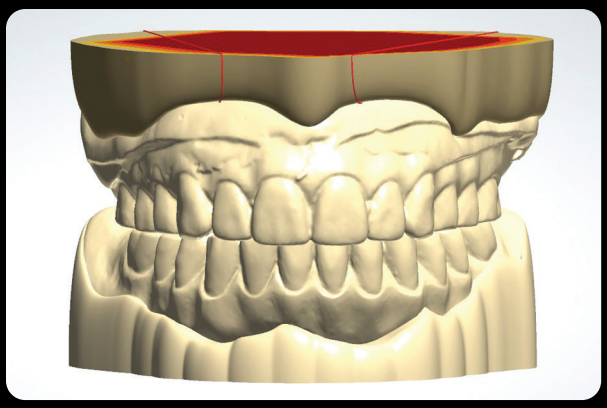
Digital Rx



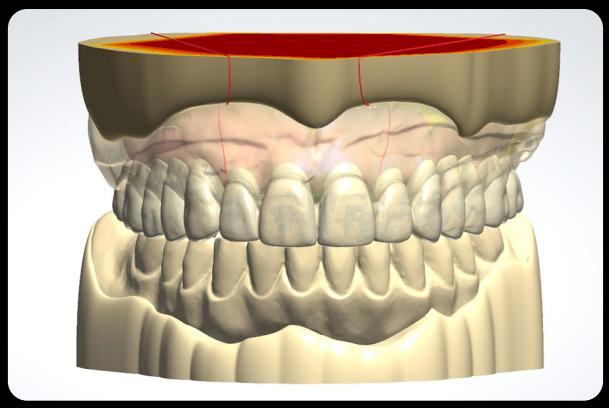
Case pictures courtesy of Dr. Barry Franzen

Digital Design and Communication

The Absolute digital design team will import the clinical data into denture design software and process a diagnostic case design. The designer follows the diagnostic changes requested by the clinician to accommodate prototype tooth position modifications. If significant diagnostic changes are required, a remote review can be scheduled to evaluate the data. Super-imposing the suggested wax-up over smile pictures offers a great communication tool.



Imported pre-op clinical data



Diagnostic design

OPTIONAL COMMUNICATION STEP



Technician / clinician remote review

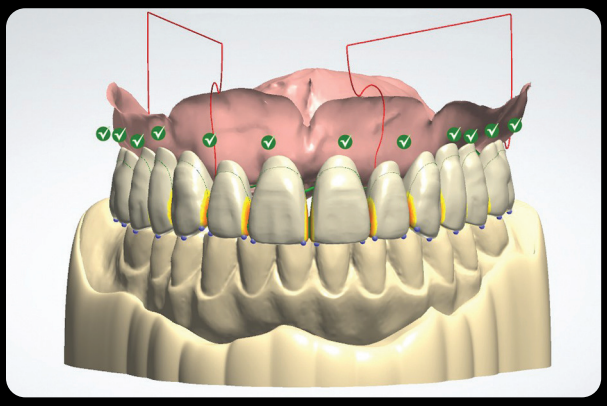


Model match to smile pics

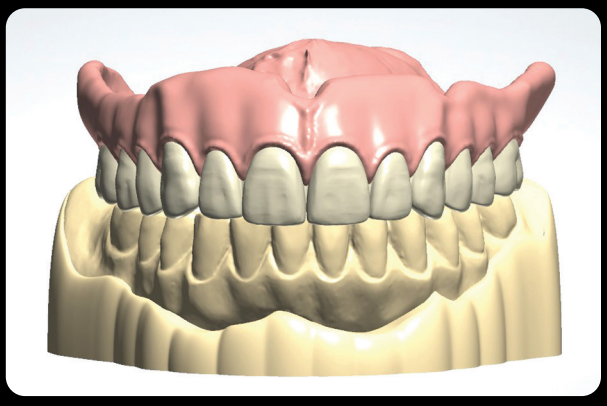


Super imposed design

FINAL DESIGN



Tooth and base design

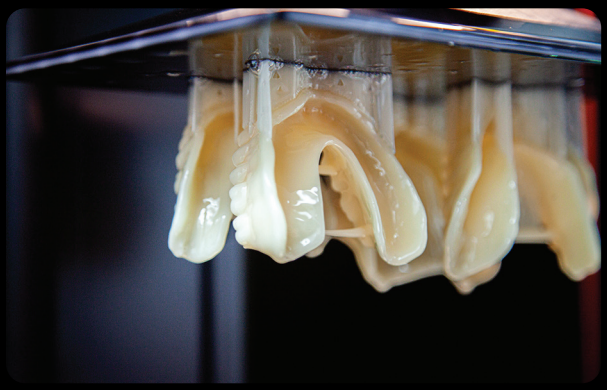


Final design

Processing of Digital Design

After approval of the digital design, the clinician can request a printed prototype try-in. This printed try-in will be an exact copy of the final denture and can be used as a definitive try-in for fit, vestibule length / thickness and tooth position. Digital design and processing eliminates many of the analog processing errors, which historically has caused final delivery issues. This predictable workflow allows many clinicians to forgo the try-in appointment in lieu of final delivery. In most cases, where only small changes were required from the original denture, the case is processed for final delivery at the second appointment.

TRY-IN PROCESSING

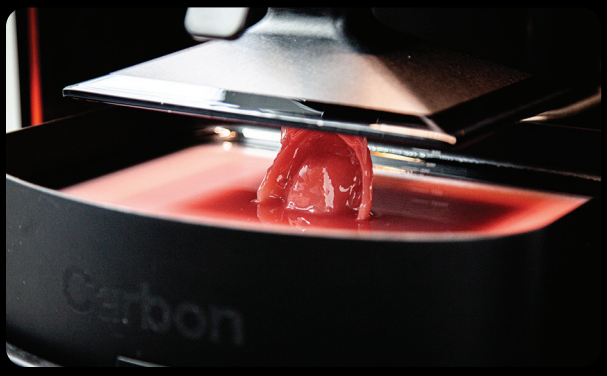


Carbon® printed try-in



Try-in ready for delivery

FINAL DENTURE PROCESSING



Carbon® M2 printed Lucitone® 3D base



Carbon® printed Lucitone® 3D base



Delivery with "No Repair" warranty card



Absolute processed Forever Denture

Clinical Delivery & Try-In

Forever Dentures can be processed with a traditional "wax bite-rim" or the "existing denture" workflow, as discussed earlier in this manual. When a traditional bite-rim workflow is utilized, a digitally designed and printed try-in is suggested for the second clinical appointment. This printed try-in is an exact replica of the proposed final. If any additional changes (incisal length or bite adjustments etc.) are required, they can be made directly to this try-in denture. This device can also be used to verify the fit, thickness, vestibule length etc. Any of these adjustments can be recorded with a reline PVS wash impression. After physical changes are made to the try-in, it is returned to the lab via analog delivery or digital scan. The laboratory will use this digitized data to adjust the design file. The final will be a direct copy of the approved dimensions and tooth positions, as directed by the try-in. Lucitone 3D PRINT is available in 5 tissue colors – Absolute Dental will supply you with a free tissue guide upon request.

TRY-IN APPOINTMENT



Printed try-in



PVS adjustment to intaglio



Absolute custom tissue guide

If a case is processed utilizing the existing denture as a prototype starting point, a try-in appointment is only required if large changes are to be made to the original denture. In most cases, when an existing denture prototype is used, the second clinical appointment is the final delivery.

FINAL DELIVERY







Immediate to Final Workflow

This enhanced digital workflow is truly emphasized when the restorative process is started from the pre-extracted immediate denture phase. This procedure can be initiated with a PVS or digital impression of the dentate patient. The bite can be set at CO or CR before scanning with an IO scanner or adjusted in analog, before the case is digitized by the lab. The digital wax-up will be processed by taking the pre-op tooth positions and diagnostic requests into consideration. Once the patient has healed and is ready for a final denture, the archived data is retrieved and a printed try-in is sent for PVS wash to refresh the intaglio. The try-in data can be submitted to Absolute by IO scanning or physically returning it for lab digitizing. The printed try-in prototype allows for the final denture to be delivered at the next appointment. This workflow accounts for the patient's original tooth position and bite, from immediate to final denture delivery. This greatly increases the predictability and enhances communication, when restoring these patients.

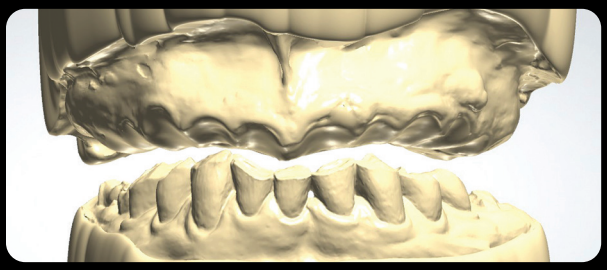
IMMEDIATE DENTURE PROCESS



IO scan of dentate patient



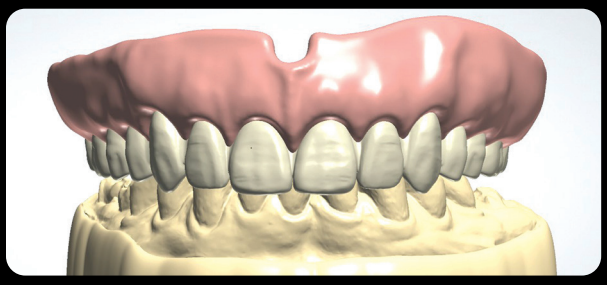
Digital import



Digital extractions



Pre-op to diagnostic relationship



Approved immediate



Lucitone® printed immediate

FINAL DENTURE FROM ARCHIVED IMMEDIATE DATA



Printed try-in from archived data - PVS wash



Final Lucitone® denture from prototype data

Forever Denture by the Numbers



ABSOLUTE Lucitone® 3D PREMIUM DENTURE

The "Forever Denture" digital design and material combination has greatly simplified the removable restorative process. Once a case is completed, an archived digital smile record is created for potential future use. When required, this indexed smile can be retrieved and a try-in printed without the need for another record gathering appointment. At the first clinical appointment, the intaglio is refreshed with a simple PVS wash reline. This allows for the fabrication of an updated version of the original denture. The new final denture can be produced in as little as 24-hours.

In case a well-fitting digitally archived denture is lost or destroyed, a simple phone call and 24 hours is all that is required to reproduce an exact copy of the original.

The process of digitally indexing an existing denture greatly simplifies any future new denture processes. This archiving service is very valuable to patients in frail care who traditionally are not able to attend multiple restorative appointments required to restore a new denture.



DIGITAL TURNAROUND

- 2 clinical appointment deliveries
- 12-month "no repair" replacement warranty*
- 24-hour lost denture replacement
- 24-hour expedited new denture turnaround
- 24-month exact copy redo at reduced cost
- 48-hour immediate denture turnaround

Lucitone® 3D PRINT

- 3 x Stronger than minimum required ISO impact standard
- IPN 3D Digital teeth fused (not luted) into the Lucitone® base
- Lucitone® 3D Print smart polymer, doubles its strength at body temperature
- High esthetics comparable to trusted Lucitone® 199 material
- Lucitone® 3D print – 3000J/m², Lucitone® 199 high impact – 1378J/m², ISO – 900J/m²

* Absolute "no repair" warranty valid only if original denture is returned. Warranty only valid for 1 replacement in first 12 months from fabrication. Warranty only covers material failure under normal function i.e. debonding of teeth and or cracked base. Noticeable abuse outside of normal intra-oral function will void the warranty.

Absolute Dental Lab



Established in 1994, Absolute Dental Services started as a small fixed prosthetics lab in the Triangle area of North Carolina. More than two decades later, Absolute's restorative focus is much broader but their attention to product detail and exceptional customer service has not changed. In 2019, Absolute Dental was voted NADL laboratory of the year by their peers.

Absolute is a true full-service partner, with a team nationally and internationally renowned for their expertise in creating world-class esthetics. Their use of cutting-edge technology in CAD and milling, as well as their extraordinary dental implant, guided surgery and high-end removables teams, enables them to deliver lifelike and functional dental prosthetics in even the most complex cases.

Serving their customers with Absolute Excellence has always been the primary focus of the Absolute team. Their vision and dedication is reflected in the company motto, *Perfection Is Not Optional*!

They welcome clinicians from all over the country to become part of the Absolute family!

CONRAD J RENSBURG, *N.D & N.H.D in technology*

Conrad J. Rensburg is the Director of Absolute Dental Services, headquartered in the Triangle region of North Carolina, with multiple branches across the southeastern United States and proud member of the Denbright Dental Lab Group. He graduated with a 4-year Baccalaureate degree under full scholarship from Pretoria Tech in 1992. He has specialized in fixed dental prosthetics, with a focus on dental implants, since the early 90's. He is a member of the AO, ACP, ITI and the PEERS association. As a CE-accredited speaker since 2002, he has presented at hundreds of events across the USA. These include the American College of Prosthodontists, the Academy of Osseointegration, the PEERS Association, DS World, as well as multiple European and US symposia. His passion for sharing knowledge is evident in the numerous study club events at which he presents every year.

Conrad's emphasis as a speaker is in keeping today's clinicians abreast with the latest advancements in restorative protocols and digital workflows related to removable and fixed prosthetics. His presentations focus on the restorative advantages of digital dentistry, covering guided surgery, latched and digital conversion workflows, screw-retained restorative solutions, digital denture protocols, and full-arch hybrid implant rehabilitations. As the author of multiple peer-reviewed articles, his research focuses on digital implant protocols, fixed hybrid implant techniques, digital removable dentistry, and modern digital communication.

Conrad can be contacted at absolutedentallab.com or conrad@absolutedentalservices.com



VOTED
2019 NADL LABORATORY
OF THE YEAR!



forever denture
your FOREVER smile

ABSOLUTE DENTAL SERVICES

ABSOLUTE Signature A.R.T TEAM

844-293-ADS1 (2371)
ABSOLUTEDENTALLAB.COM

SCAN HERE