



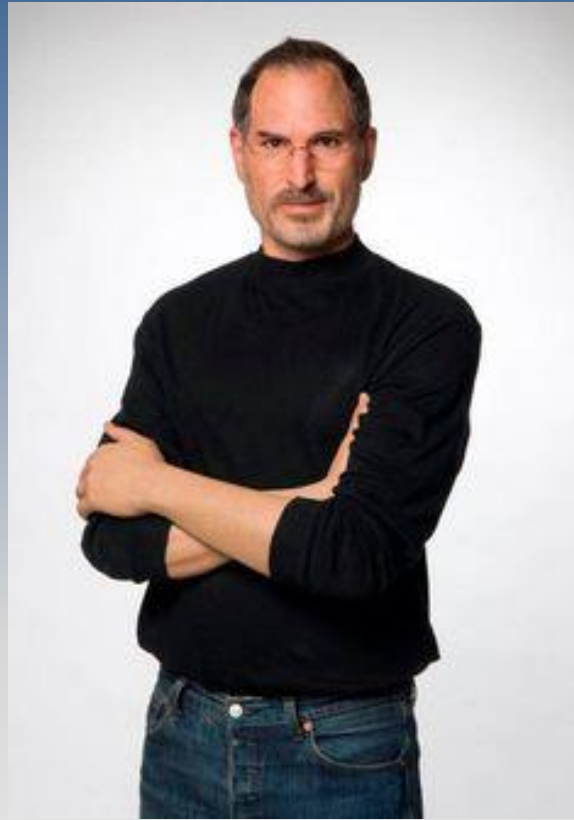
## The Alternative Denture



August 26, 2017

## **Speaker– Lawrence N Wallace DDS**

- DDS University of Illinois College of Dentistry
- Oral Surgery Residency Long Island Jewish Medical Center
- Board Certified Oral and Maxillofacial Surgery
- Private Practice in Oral and Maxillofacial Surgery
- VP Dental utilization review firm
- President and CEO, Larell Surgical Consultants
- Developer and Founder, The Larell One Step Denture



# **Think Different**

**.....Steve Jobs**

## Discussion Points

- Introduction
- Current Denture Market
- Scientific background
- The Larell One Step Denture
- Case Studies
- Incorporating One Hour Dentures into your practice

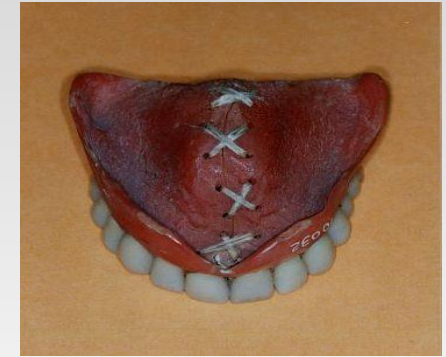




Dentures = 19,400,000\* results

\* May 4, 2017

# The History of Dentures



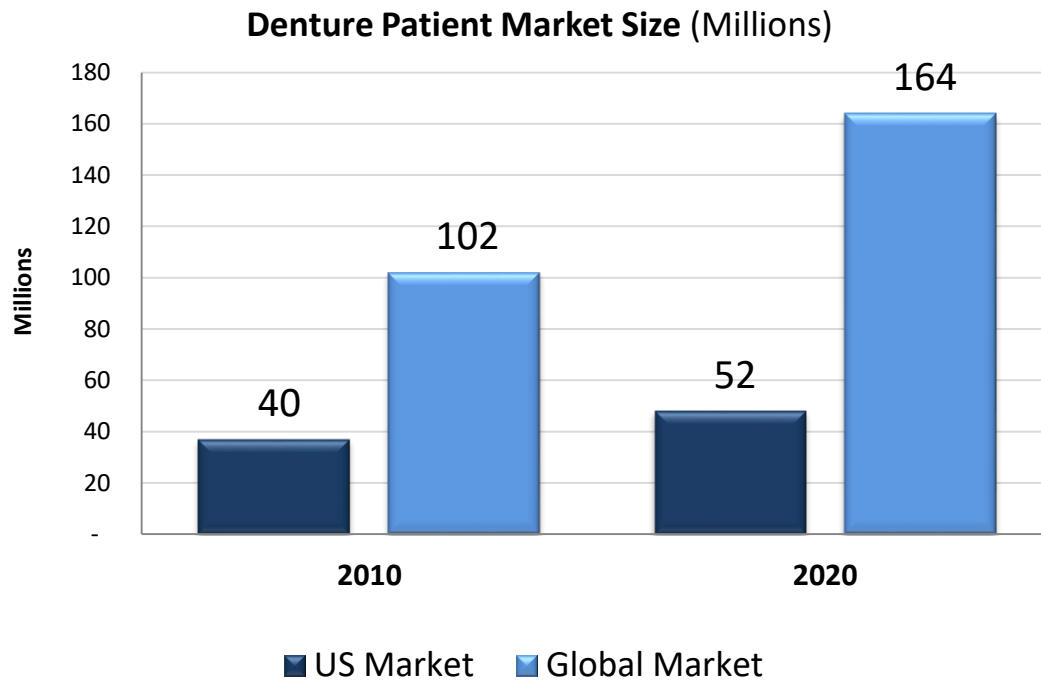
## Denture Usage

- ✓ 37-40 Million edentulous currently in the US
- ✓ Only 90% of the edentulous wear dentures
- ✓ The percentage decline in edentulism will be more than offset by the 79% increase in the adult population over 55.
- ✓ Dentists will find a sizeable minority of the patient population will continue to need complete denture services.

**Will there be a need for complete dentures in the United States in 2020?**

Douglass CW Shih A Ostry L J Prosthetic Dentistry 2002 Jan;87(1):5-8

## Denture Demographics



## Scientific Principles of Complete Dentures

**Felton DA Texas Dental Journal Apr  
2010**

...complete edentulism... continues to represent a tremendous global health care burden, and will for the foreseeable future.

## Standard of Care – The Larell Denture

- Adherence to Scientific Principles and classic prosthodontic literature
- Professionally accepted materials
- Patient satisfaction results
  - ✓ Fit
  - ✓ Form
  - ✓ Function

## Standard of Care – The Larell Denture

- Adherence to Scientific Principles and classic prosthodontic literature
- Professionally accepted materials
- Patient satisfaction results
  - ✓ Fit
  - ✓ Form
  - ✓ Function
  - ✓ Meet Patient's expectations

## Patient Expectations

It isn't all about the  
occlusion



# **Expectations and Final Evaluation of complete dentures by patients, dentist and dental technician**

**MARACHLIOGLOU, DOS SANTOS, CUNHA and MARCHINI**

**Journal of Oral Rehabilitation**

**Volume 37, Issue 7, July 2010, Pages: 518–524**

**20 completely edentulous patients, a Prosthodontist and a dental technician provided scores for the expected aesthetic and functional results of their dentures:**

**➤ Patients presented higher expectations regarding their dentures than dental professionals.**

**➤ The dentist believed that dentures would bring fewer benefits than patients did, but his perception of denture benefits post-treatment was significantly higher than his expectations.**

## Patient Expectations



## Patient Expectations



## Patient Expectations



## Patient Expectations



## Patient Expectations

Dentures are not a replacement for teeth...They are a replacement for NO teeth

# Factors Associated with Successful Denture Therapy

Roberta L.Diehl, Ulrich Foerster, Venitta Sposetti, and Teresa Dolan  
Journal of Prosthodontics, Vol 5, No2 (June), 1996, 84-90

- Purpose: Evaluate denture patients after delivery to develop an explanatory model of successful denture therapy
- 60 patients treated at a dental school
- Pre and post treatment questionnaires and interviews (6 month and 18 month intervals)
- **Expectations measured for comfort, fit, chewing ability, appearance and speaking ability**

# Factors Associated with Successful Denture Therapy

Roberta L.Diehl, Ulrich Foerster, Venitta Sposetti, and Teresa Dolan

Journal of Prosthodontics, Vol 5, No2 (June), 1996, 84-90

- Psychological and Interpersonal Factors are more important determinates of denture satisfaction than anatomic or clinical factors
- Patients that are well adjusted emotionally, + self image, - depression adjust with greater ease to new dentures
- **Satisfaction of care received, cost of service, convenience in access to care, interpersonal relationship with the dentist are as important as comfort, fit and function**



**Dentures in an Hour**

**Does it meet Standard of Care?**

# Standard of Care:

**standard, n. that which is established by authority, custom, or general acceptance as a model; criterion.**

**\*guides practice and may be used to evaluate performance.**

# Factors Associated with Successful Denture Therapy

Roberta L.Diehl, Ulrich Foerster, Venitta Sposetti, and Teresa Dolan  
Journal of Prosthodontics, Vol 5, No2 (June), 1996, 84-90

- **76.7%** satisfied with their dentures
- **74.6%** expectations had been meet
- **67%** said they adjusted easily at 6 month
- **78%** said they adjusted easily at 18 months
- Age, gender, race, income level, education, marital status and maxillary and mandibular anatomy were not significantly associated with denture success within this study

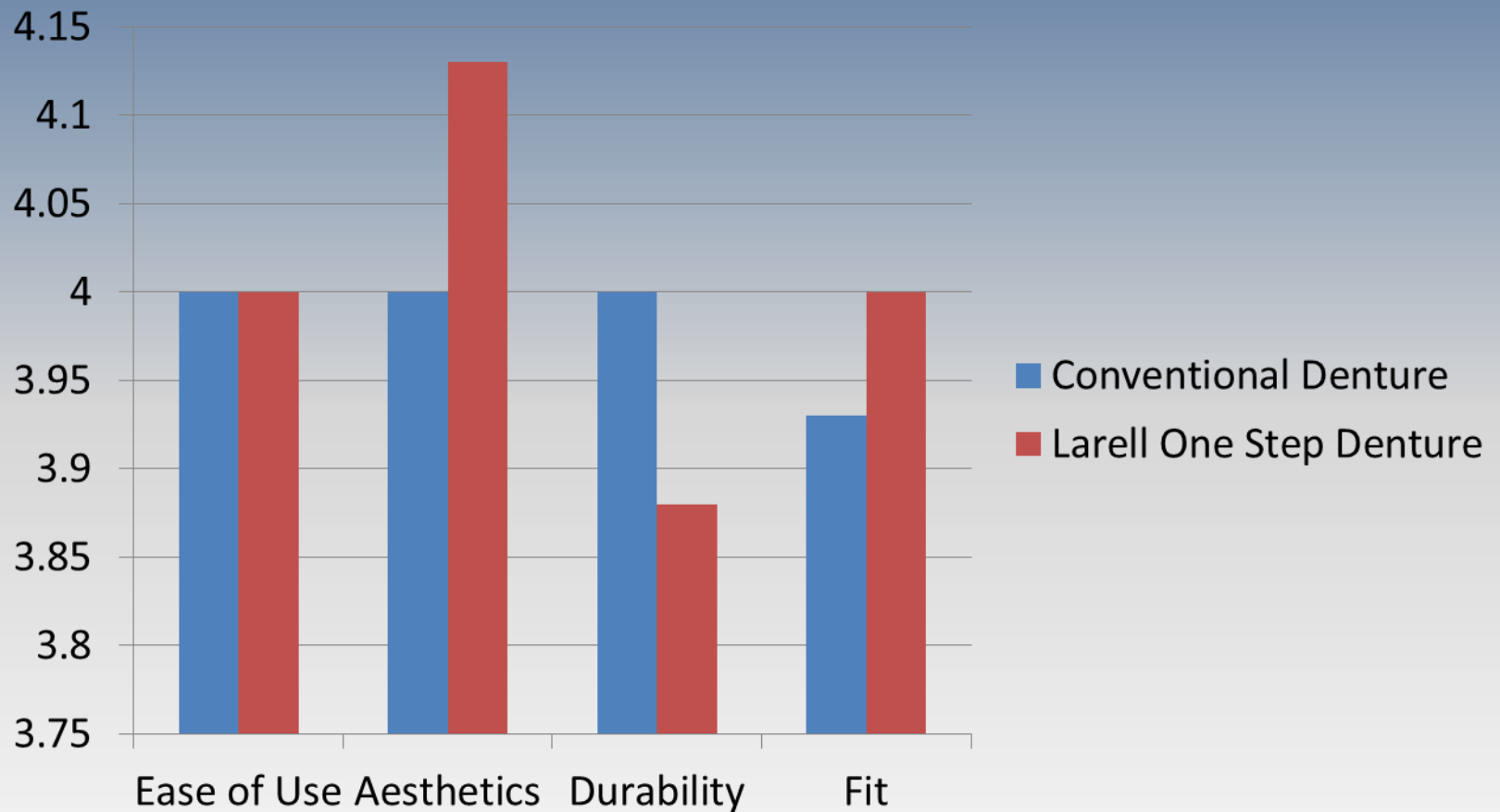
# Survey of Larell Patients

- 69 patients surveyed: 61 responding
- Telephone interview and post-op evaluation
- 11% previous denture wearers
- **83.6%** overall satisfaction with their dentures
- **98.4%** pleased with appearance
- **80.3%** chew comfortably
- **83.3%** reported feeling healthier
- Patient demographics consistent with previous study

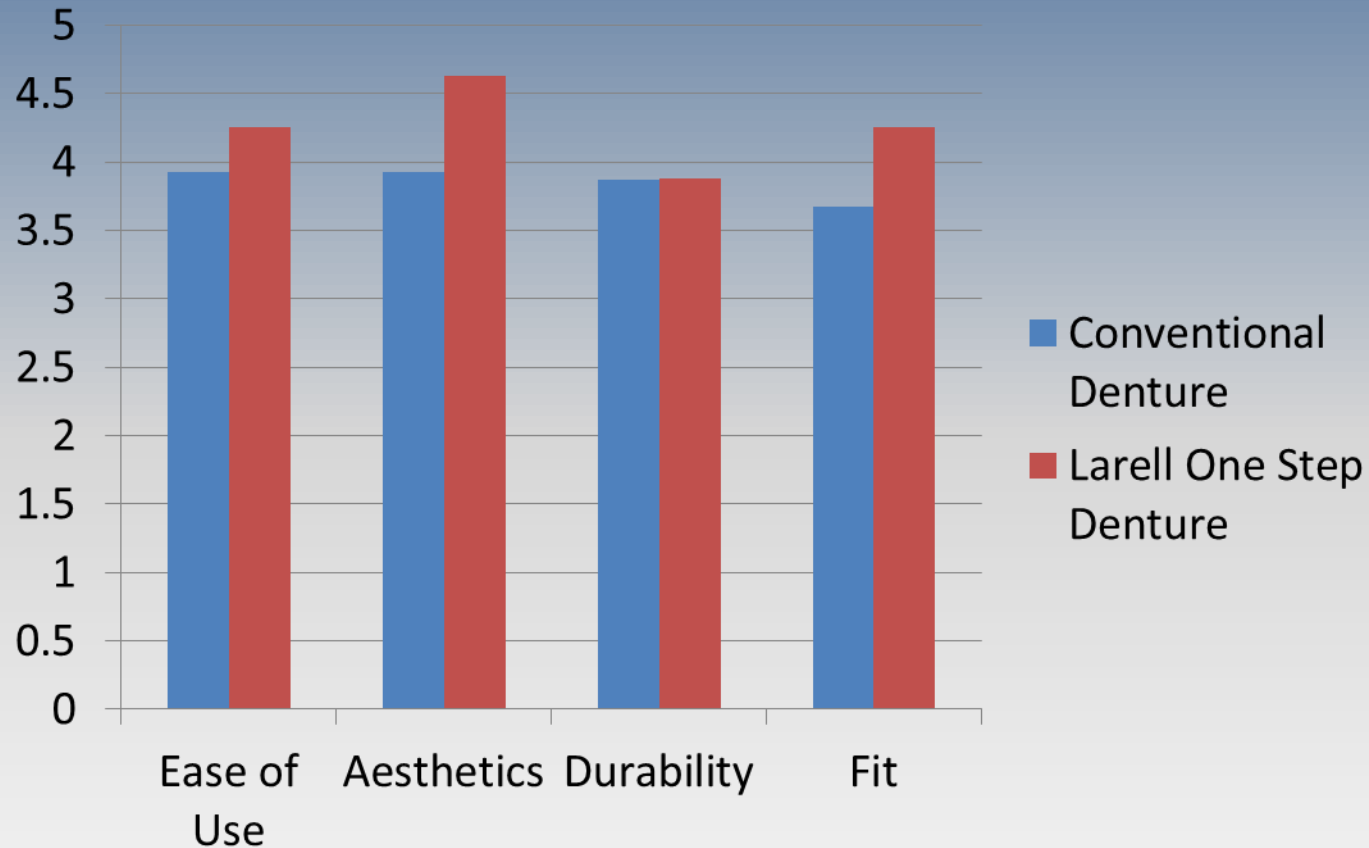
# Comparison of Satisfaction Rates of Providers and Patients of Conventional Dentures and Larell One Step Dentures

- Survey conducted at 15 sites by the Virginia Health Care Foundation 2014

## The Larell Denture vs. Traditional Denture -Provider Satisfaction



## The Larell Denture vs Traditional Denture-Patient Satisfaction



## The Larell One Step Denture

- Innovative method of denture fabrication
- Revolutionary lower-cost, one-visit solution
- Opens unserved and underserved markets due to its:
  - Portability
  - One visit fabrication
- Intuitive, easy to learn technique



## Market Sectors

- Private Practice
- Skilled Nursing Facilities
- Assisted Living Residences
- Working population without insurance benefits
- Mobile Dental Clinics
- Safety Net Clinics
- Free dental clinics/Mission of Mercy

## The Larell One Step Denture

Clinical situations to use the Larell denture

- ✓ Complete Dentures
- ✓ Immediate Dentures
- ✓ Implant Overdentures
- ✓ Emergency Dentures
- ✓ Spare Dentures

## The Larell One Step Denture

Clinical situations to use the Larell denture

- ✓ **Complete Dentures**
- ✓ Immediate Dentures
- ✓ Implant Overdentures
- ✓ Emergency Dentures
- ✓ Spare Dentures

## Conventional Denture vs. Larell Denture

### Conventional denture

- Made in dental office
- Made in 4-5 visits
- Total time 3-4 hours
- \$200 - 400 lab cost
- Retail \$3000-5000/set

### Larell One-Step Denture

- **Can be made anywhere**
- **Made in 1 visit**
- **Total time about 1 hour**
- **No lab cost**
- **Retail \$1,200-\$1400/set**

## Larell Results

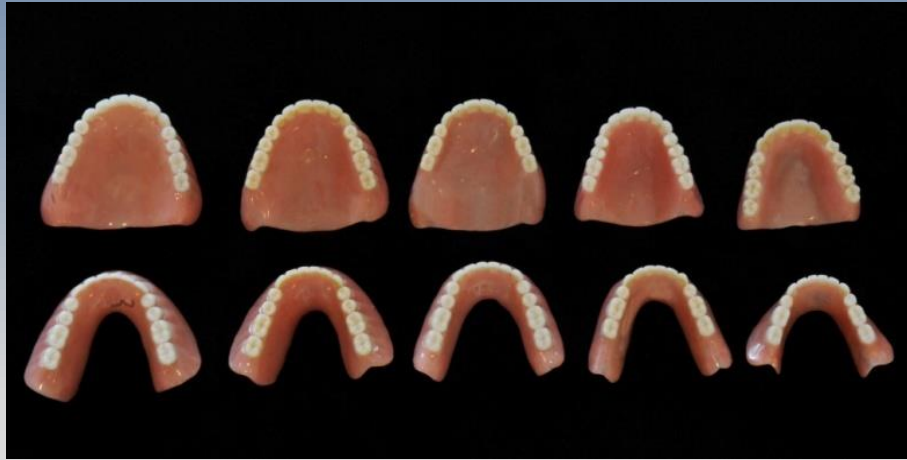
Wise VA MOM Clinic August 2011	<b>100</b> dentures
CA MOM Clinic October 2013	<b>102</b> dentures
Virginia MOM Clinic 2014	<b>112 dentures</b>
CA MOM Clinic October 2014	<b>104</b> dentures
CA MOM Clinic March 2015	<b>98</b> dentures
AZ MOM Clinic December 2015	<b>119</b> dentures
CA MOM Clinic May 2017	<b>113</b> dentures
AZ MOM Clinic December 2016	<b>124</b> dentures

## Our Patients



## The One-Step Denture System

- Multiple size pre-formed patented dental templates



- Available in shades B65, B1
- Accommodates 99% of edentulous population
- Templates made in the **US** from all **US made materials**

## Denture Placement Technique



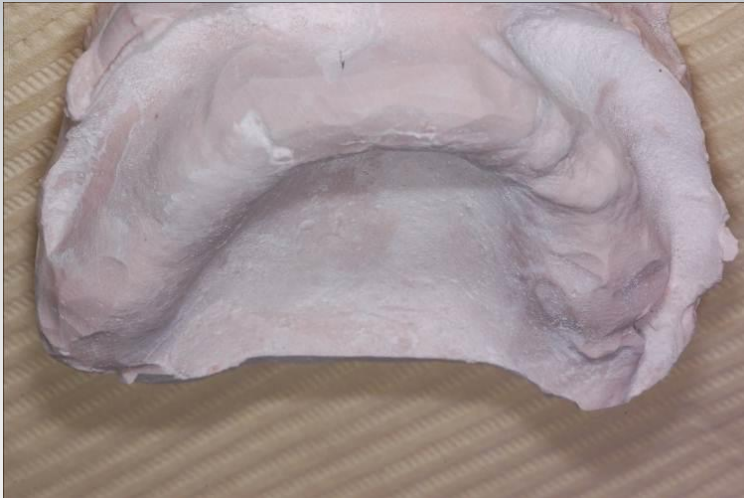


## Denture Templates



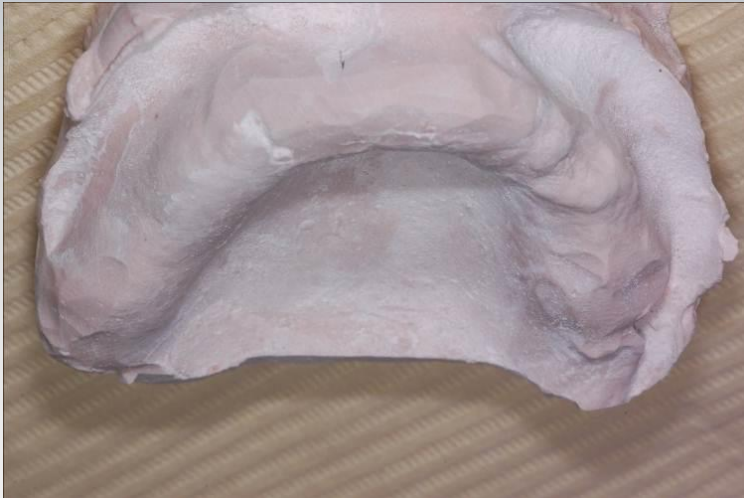
## Denture Placement Technique

- Start with quick set stone model
- Choose closest template size



## Denture Placement Technique

- Start with quick set stone model
- Choose closest template size



## Denture Placement Technique

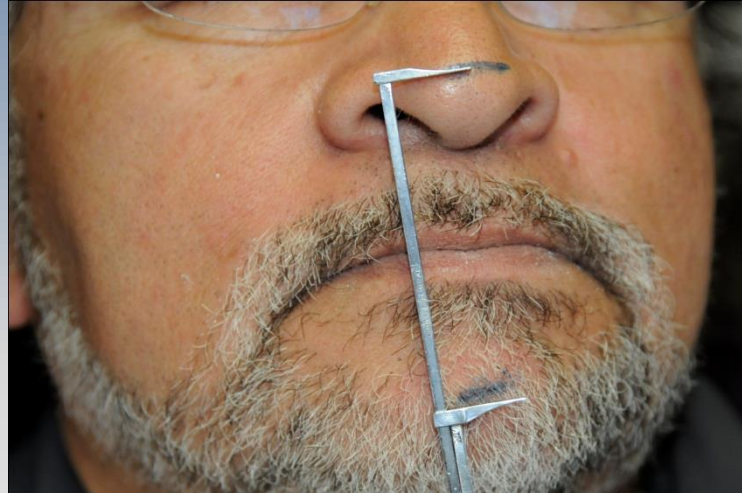
- After heating in boiling water for 30 seconds, the template can be molded to the palate, flanges, tuberosities, retromolar pads.
- Frenum attachments and other impingements on the template are relieved at this time





## Denture Placement Instructions

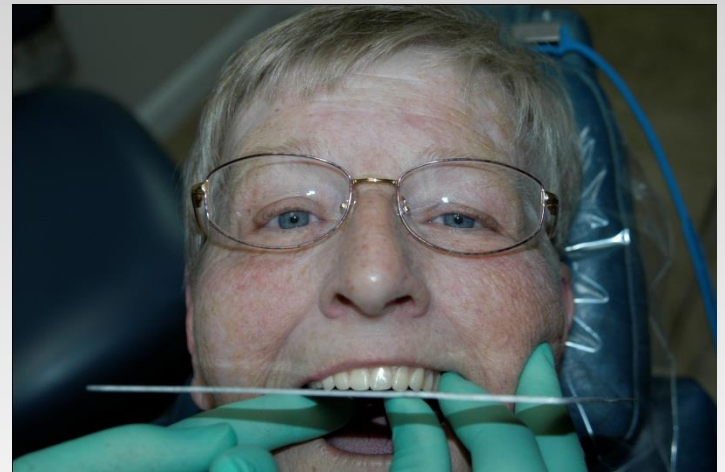
- Check vertical dimension in standing relaxed position



- Final vertical to be 2 mm less than initial measurement

## Denture Placement Instructions

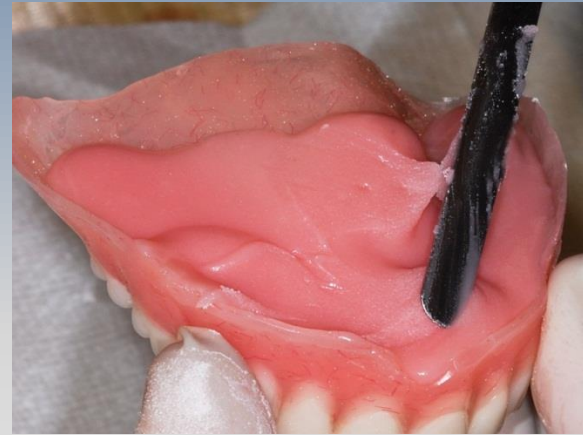
- Position upper template in mouth  
Anterior/posterior (ala tragal line): Occlusal plane  
Occlusal cant: Occlusal plane  
Tooth Show: **Visual**  
Lip Support: **Visual**



## Denture Placement Instructions

- Obtain quick pour model of jaw
- Prepare upper template
- Reline upper template
- Try in lower template
- Reline lower template
- Use PIP paste and articulating paper
- Finish and polish

## Templates-Before and After





## Denture Placement Instructions



## Case Study – Complete Denture



## Case Study – Complete Denture



## Case Study – Complete Denture





## Case Study – Complete Denture



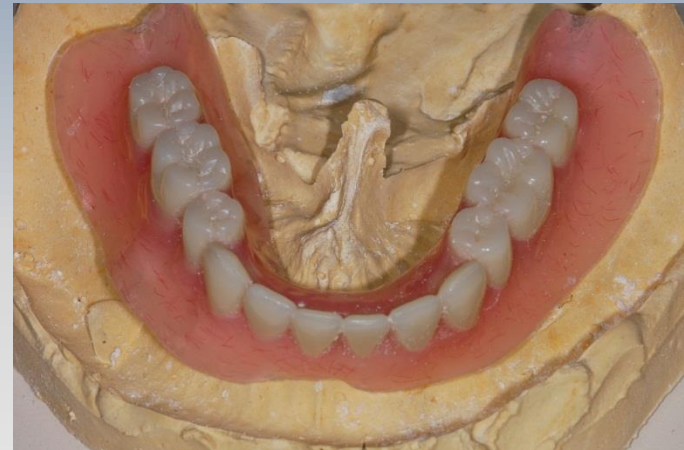
## Case Study – Complete Denture



## Case Study – Complete Denture



## Case Study – Complete Denture





## Case Study – Complete Denture



## Template Customization

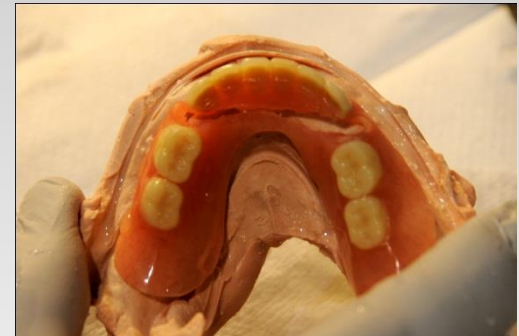
**Teeth not over ridge** – Heat template and move teeth slightly. If more movement is needed then cut notch in template and move segment over ridge.



**Occlusal plane canted on template try in** – Place stops inside upper template to level occlusion prior to reline.

## Template Customization

**Unable to achieve ideal class I occlusion** – Not all circumstances will allow an ideal class I occlusion. There may be a posterior crossbite or edge to edge occlusion. This is not an issue with monoplane teeth



## Trouble Shooting

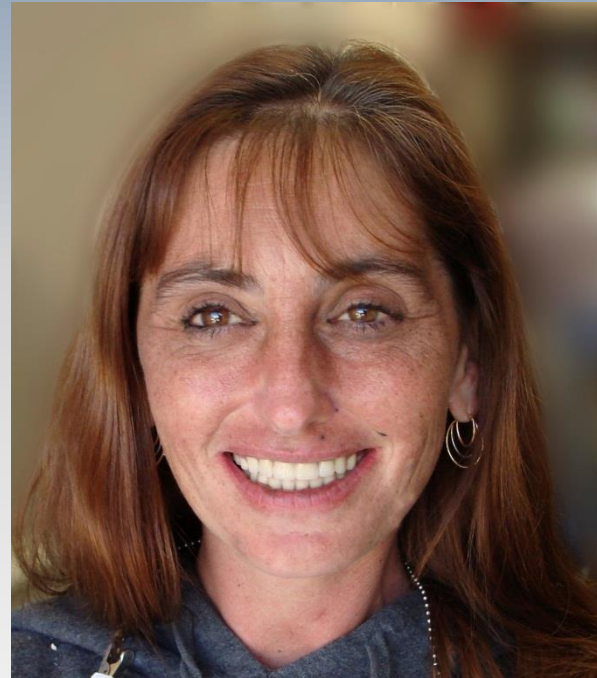
**Poor retention of lower template** – Use soft reline material, add mylohyoid flange extensions, consider the use of mini implants.

**Lack of suction on upper template** – Add post dam using reline material.

**Gingival color too light** – Add ink to reline liquid before mixing



## **“Cosmetic” Dentures**





## **“Cosmetic” Dentures**



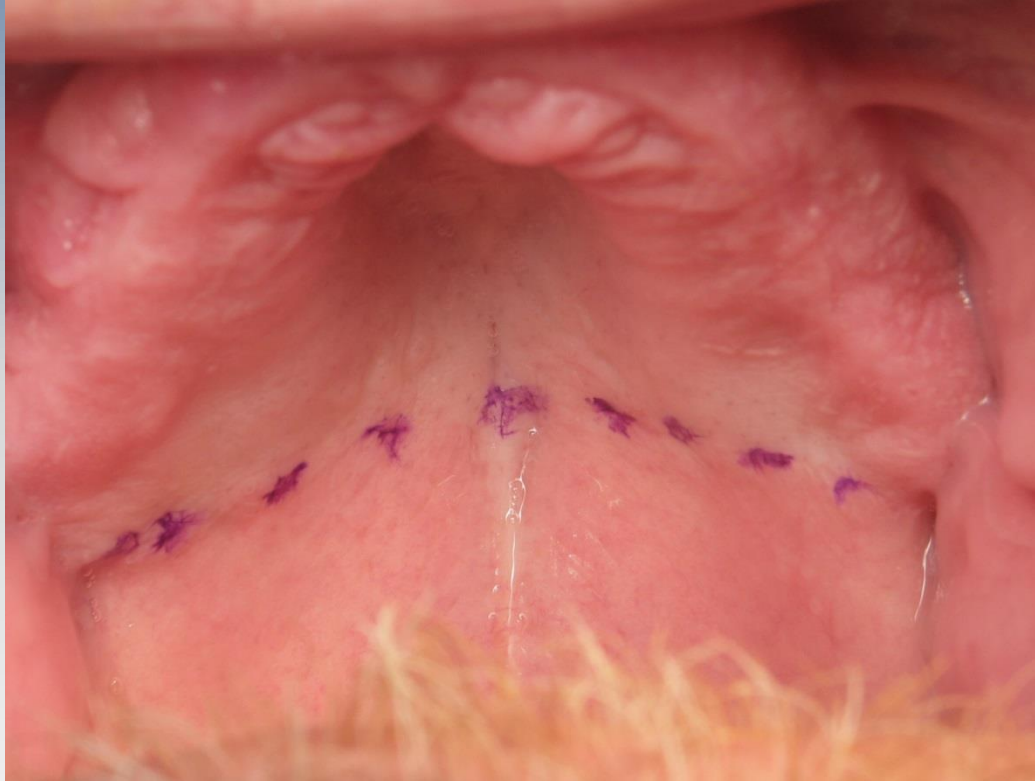
# Full Denture Case

## Case Study – Full Denture





## Case Study – Full Denture



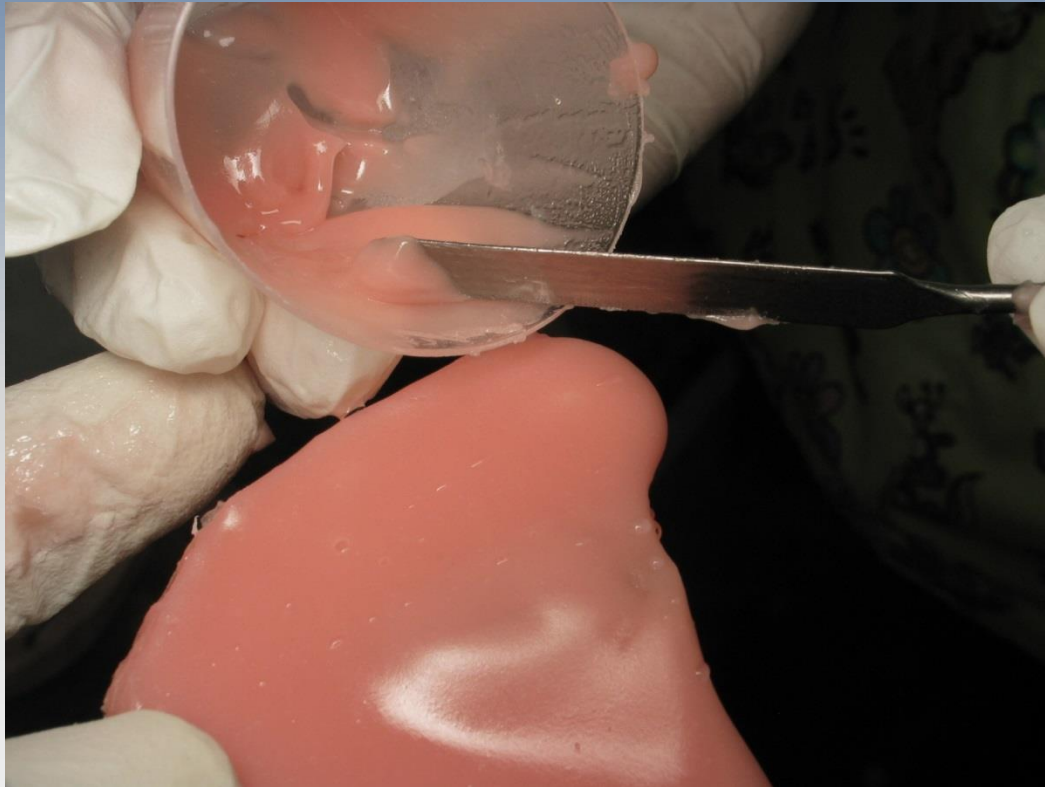
## Case Study – Full Denture



## Case Study – Full Denture



## Case Study – Full Denture



## Case Study – Full Denture





## Case Study – Full Denture



## Case Study – Full Denture



## Case Study – Full Denture





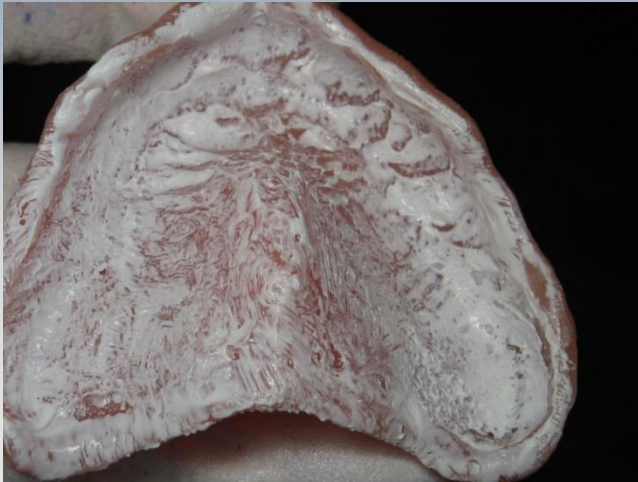
## Case Study – Full Denture



## Case Study – Full Denture



## Case Study – Full Denture



## Case Study – Full Denture



## Case Study – Full Denture





## Case Study – Full Denture



## Case Study – Full Denture



## Case Study – Full Denture





## Case Study – Full Denture



## Case Study – Full Denture



# Immediate Upper Denture

## Case Study – Immediate Denture



- Vertical already established
- Lower occlusion to be balanced to upper

## Case Study – Immediate Denture



## Case Study – Immediate Denture





## Case Study – Immediate Denture





# Interim Immediate Denture

## Case Study – Interim Immediate Denture



## Case Study – Interim Immediate Denture



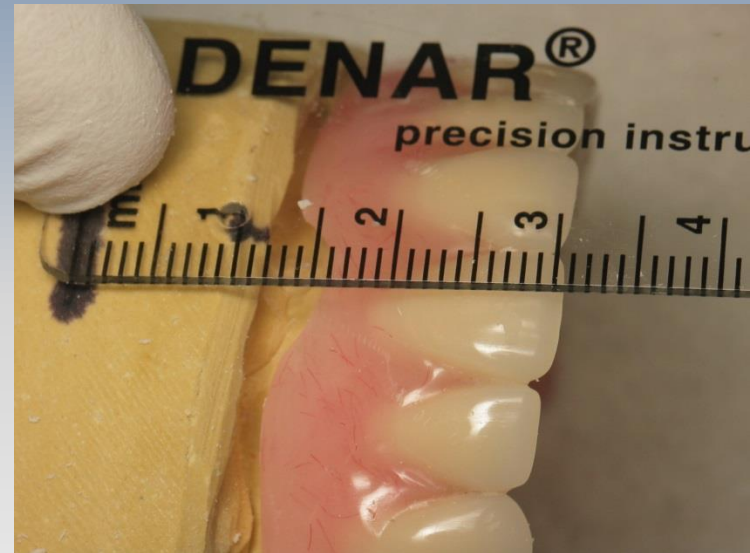
## Case Study – Interim Immediate Denture



## Case Study – Interim Immediate Denture



## Case Study – Interim Immediate Denture



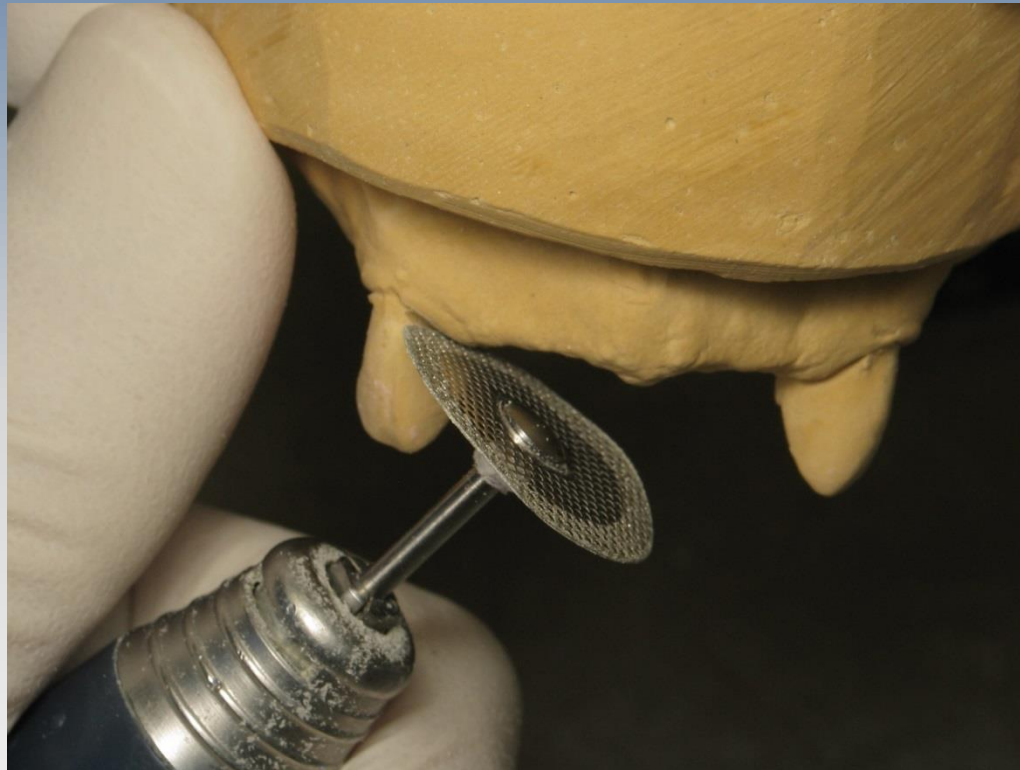


## Case Study – Interim Immediate Denture





## Case Study – Interim Immediate Denture



## Case Study – Interim Immediate Denture



## Case Study – Interim Immediate Denture



## Case Study – Interim Immediate Denture



## Case Study – Interim Immediate Denture



## Case Study – Interim Immediate Denture





## Case Study – Interim Immediate Denture





## Case Study – Interim Immediate Denture



## Case Study – Interim Immediate Denture



## Case Study – Interim Immediate Denture



## Case Study – Interim Immediate Denture



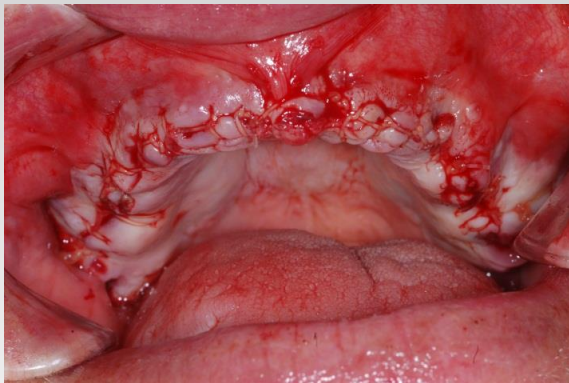
## Case Study – Interim Immediate Denture



# Maxillary Immediate Denture Placement



## Case Study – Immediate Denture





## Case Study – Immediate Denture



## Case Study – Immediate Denture

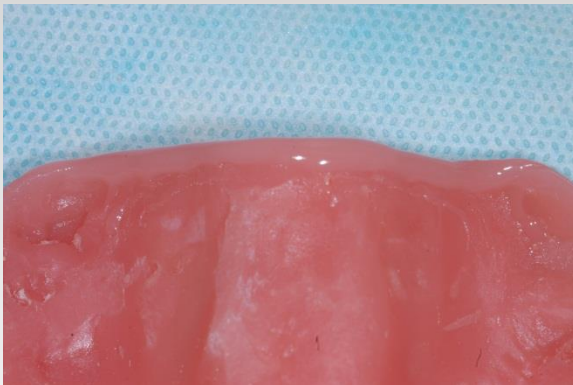


## Case Study – Immediate Denture





## Case Study – Immediate Denture



## Case Study – Immediate Denture



# Laboratory Processed Denture

## Pre Op Models





## Post Op Models



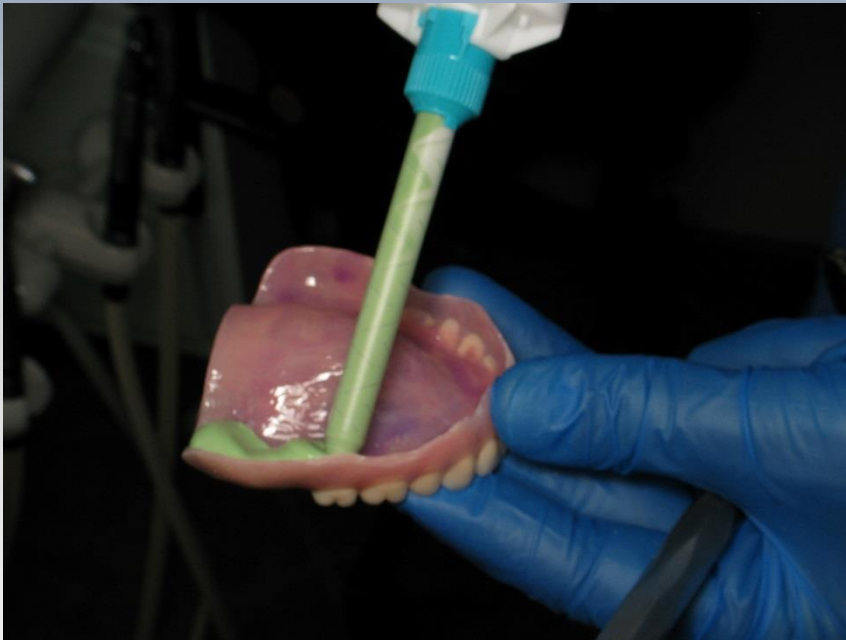
## Modified Templates



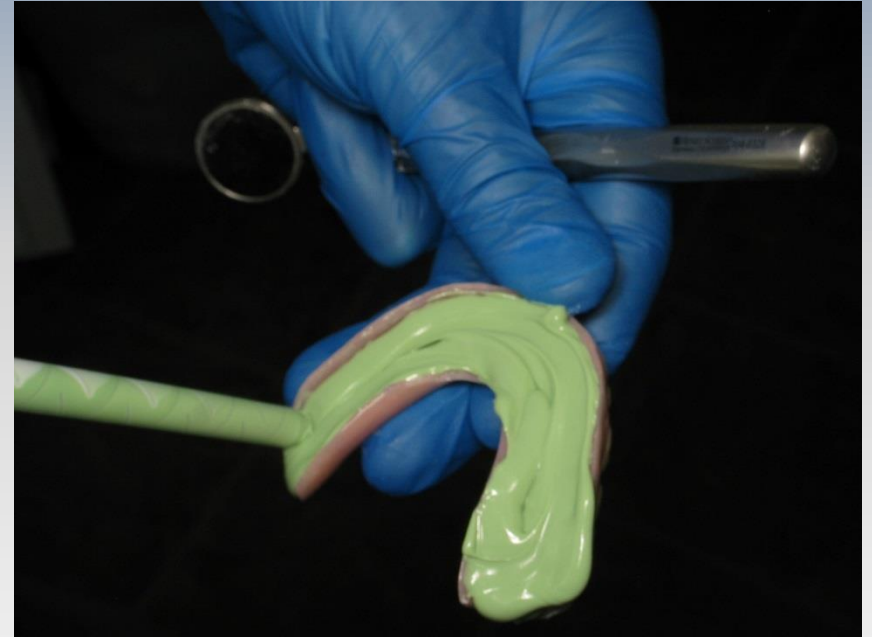
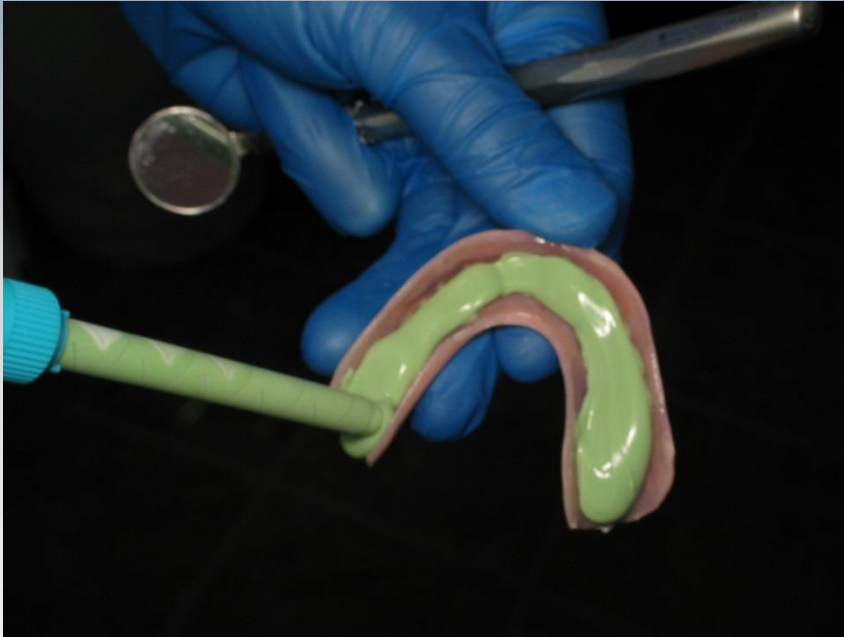
## PVS Adhesive Placed



## Maxillary PVS Impression



## Mandibular PVS Impression





## Impressions and Bite Record



## Impressions Sent to Lab

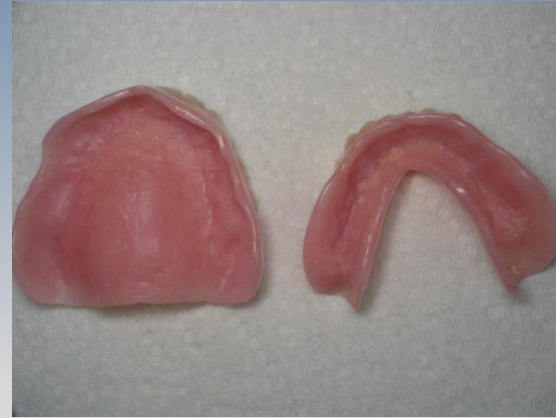




## Lab Reline Master Casts



## Completed Lab Processed Templates



# Immediate Upper Partial Denture

## Case Study – Upper Immediate Partial Denture

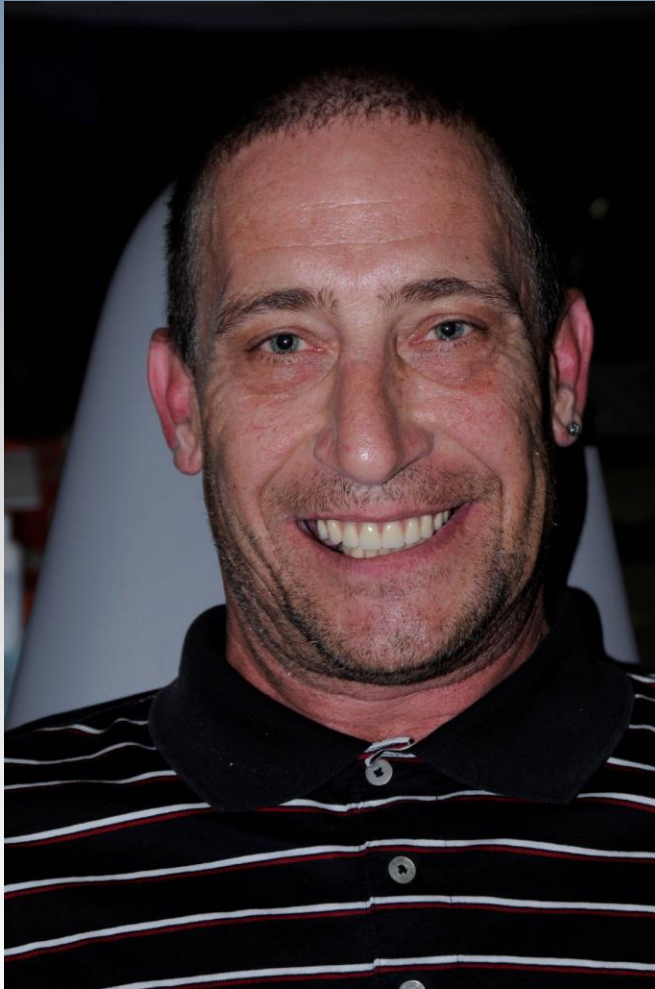


## Case Study – Upper Immediate Partial Denture





## Case Study – Upper Immediate Partial Denture





# Overdentures With Implants



## Meg-Rhein System

### •• Meg-Rhein (Overdenture) Line-up

#### — Products



Meg-Rhein Abutment



OnePiece Fixture  
(Available in Nov. 2013)

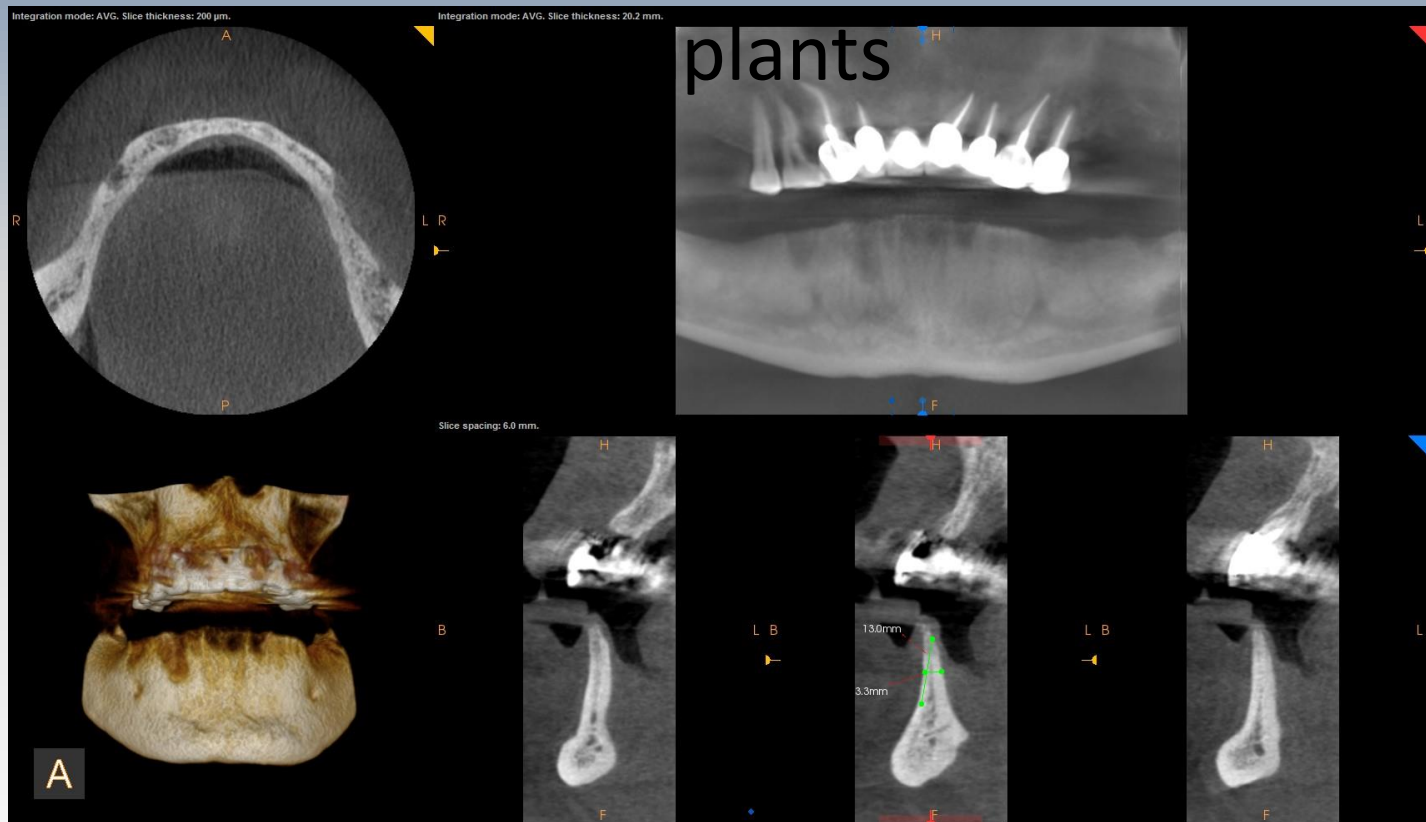


Meg-Rhein and all related abutment options are optimized for Digital Impression and CAD/CAM-based prosthetics connections.





# Too Narrow for 2 piece plants





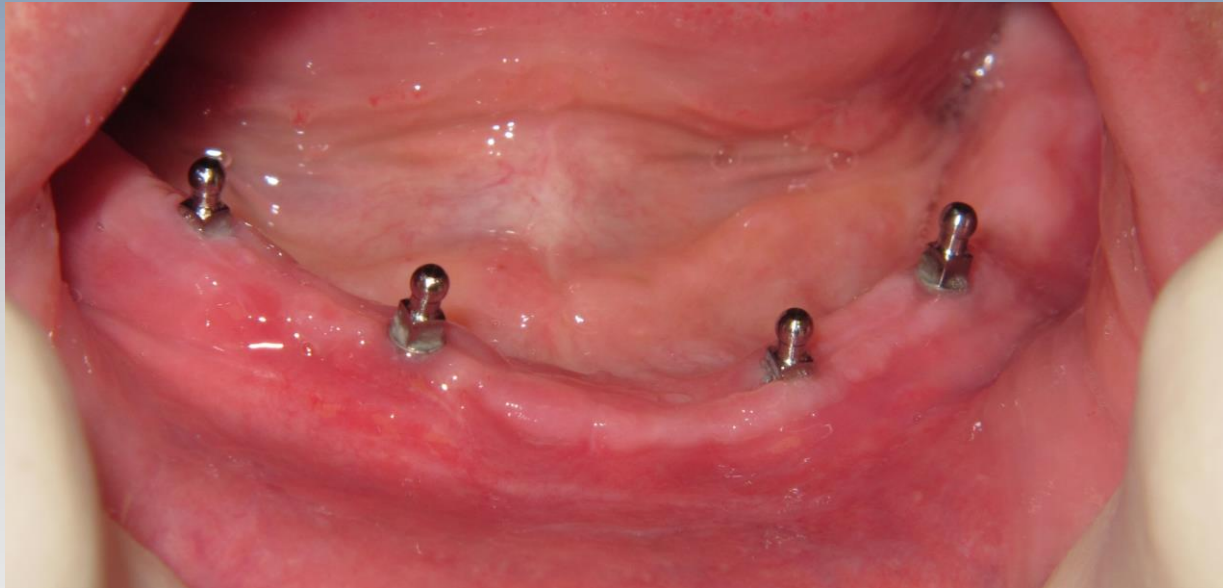




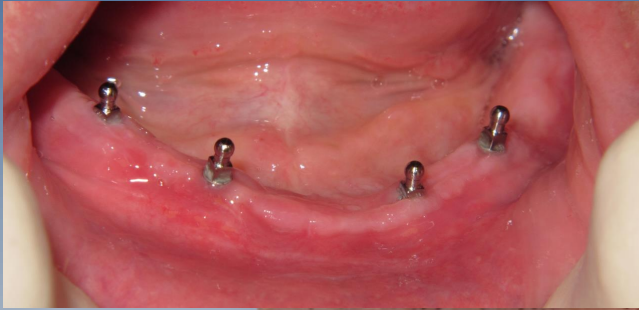




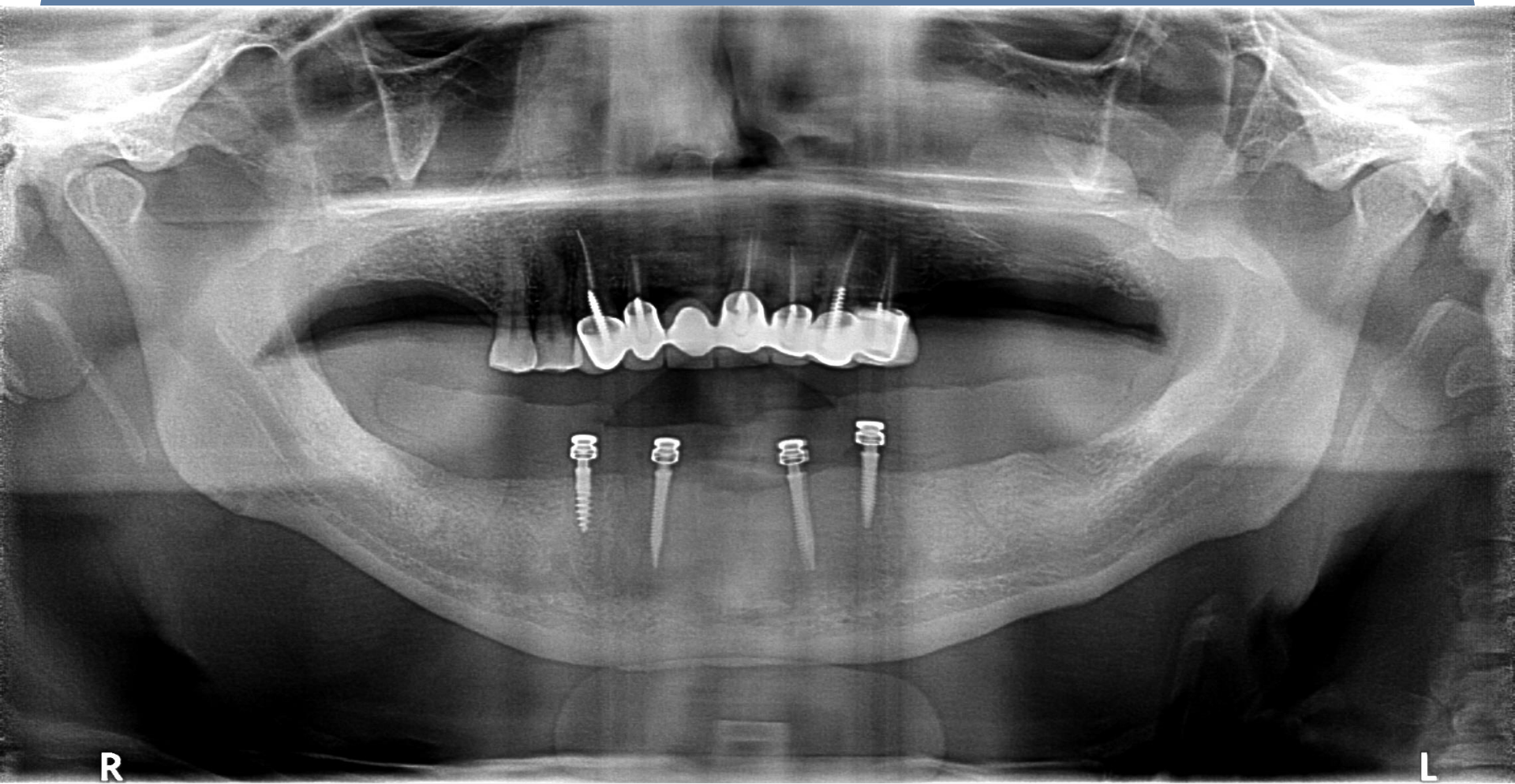
3 month post op



3 month post op







# Remake Implant Overdenture



## Case Study – Remake Implant Overdenture



## Case Study – Remake Implant Overdenture



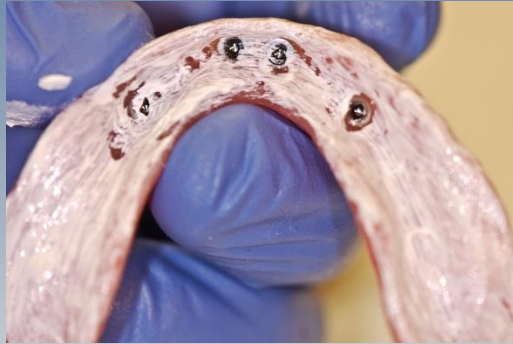
## Case Study – Remake Implant Overdenture



## Case Study – Remake Implant Overdenture



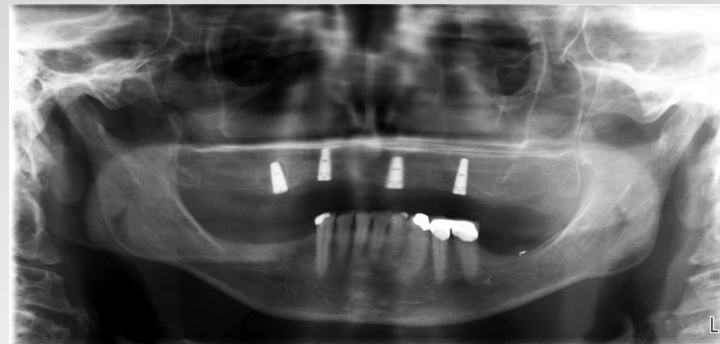
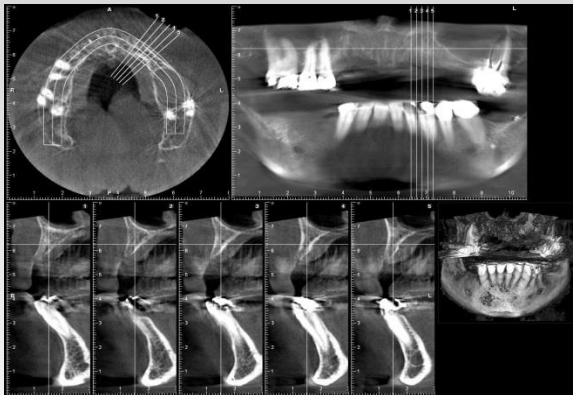
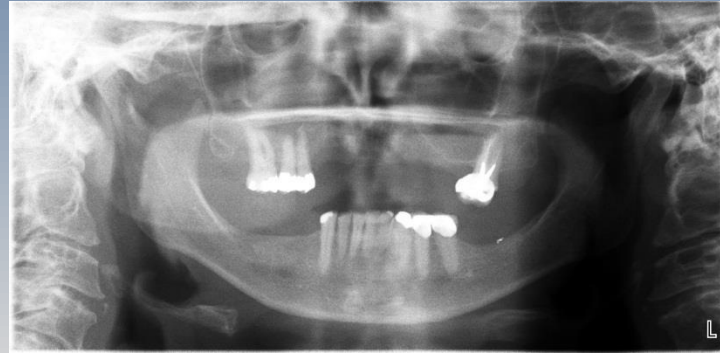
## Case Study – Remake Implant Overdenture



# Maxillary Implant Supported Denture



## Case Study – Maxillary Implant Case



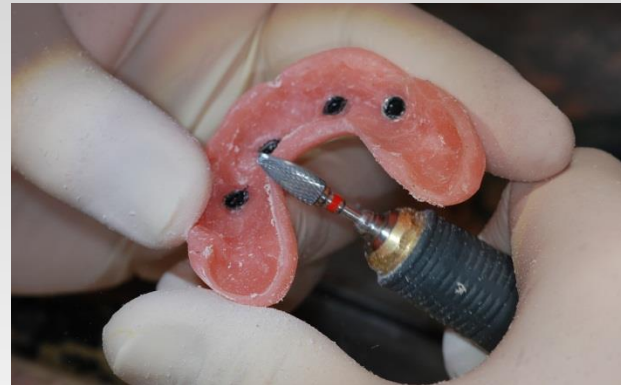
## Case Study – Maxillary Implant Case



## Case Study – Maxillary Implant case

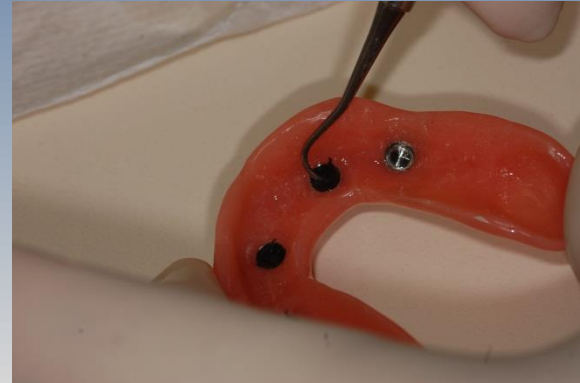


## Case Study – Maxillary Implant Case





## Case Study – Maxillary Implant Case



## Case Study – Maxillary Implant Case



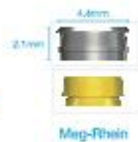


# Divergent Implants

## Advantages

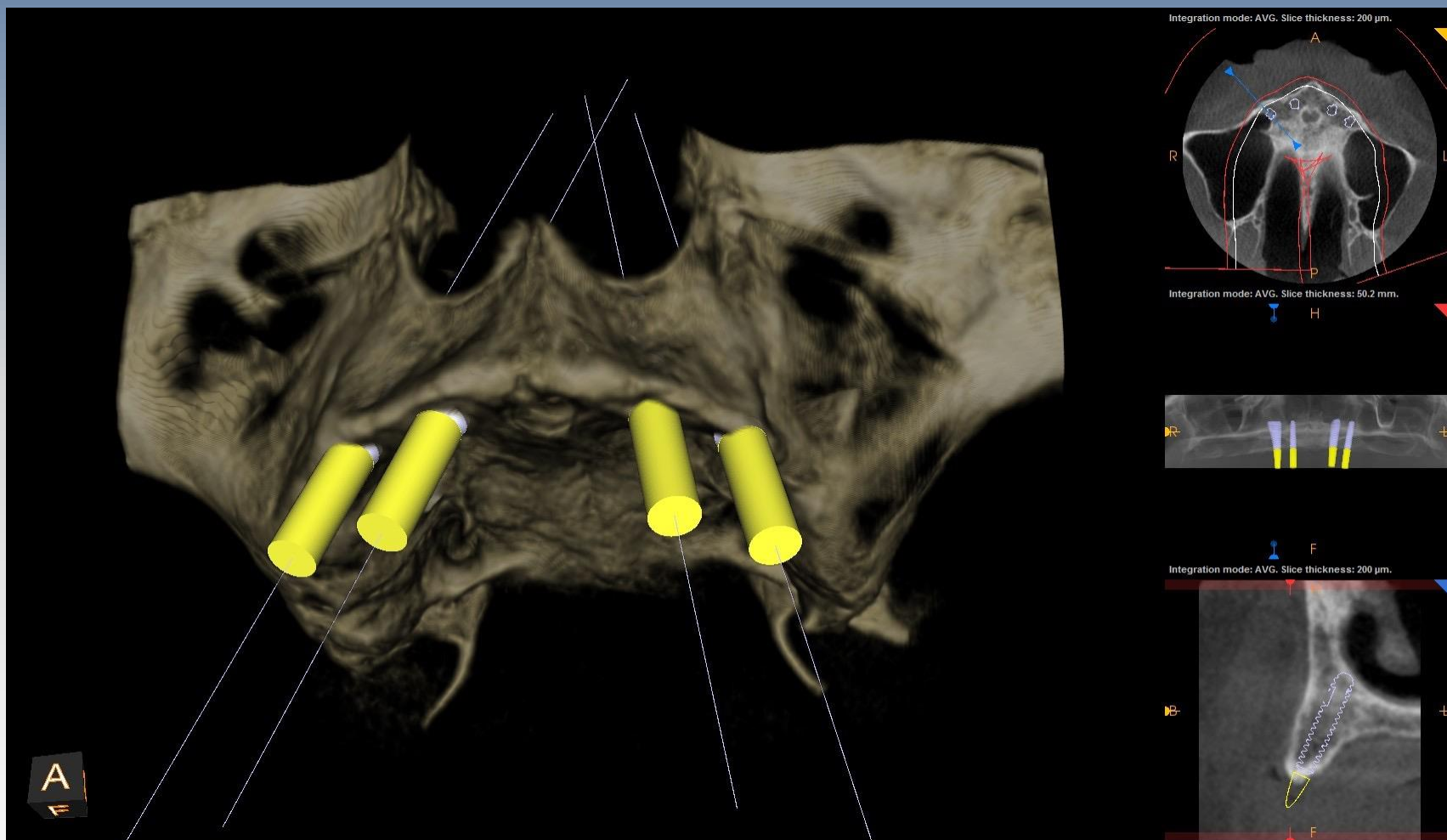
### 1. Small & Easy-to-use Housing System

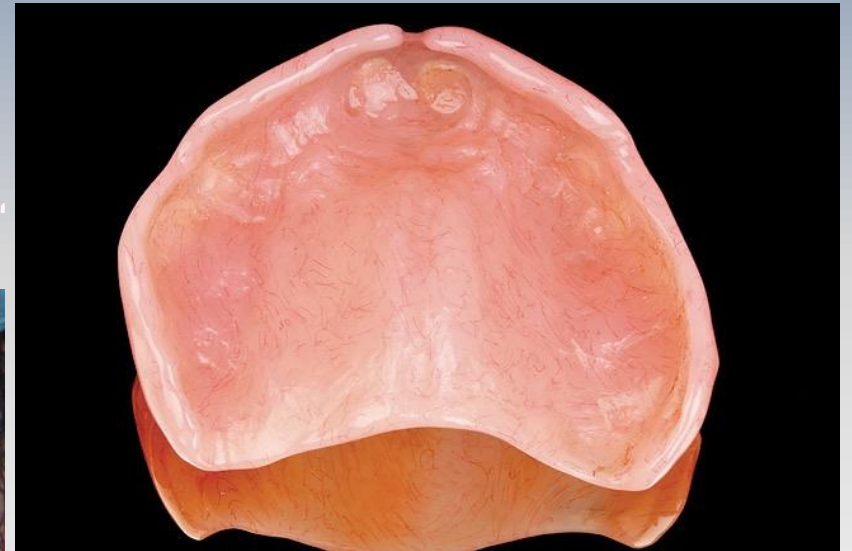
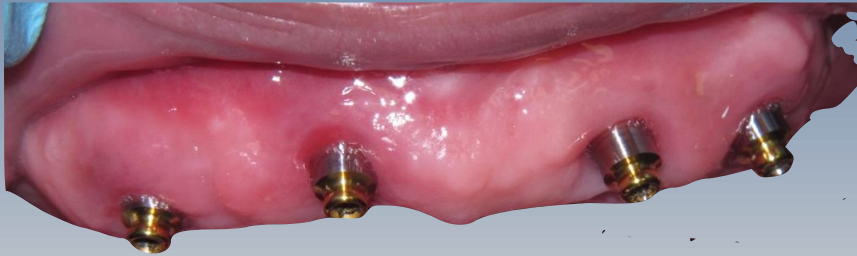
*\*Smaller & more convenient than others, with proven Italian technology.*

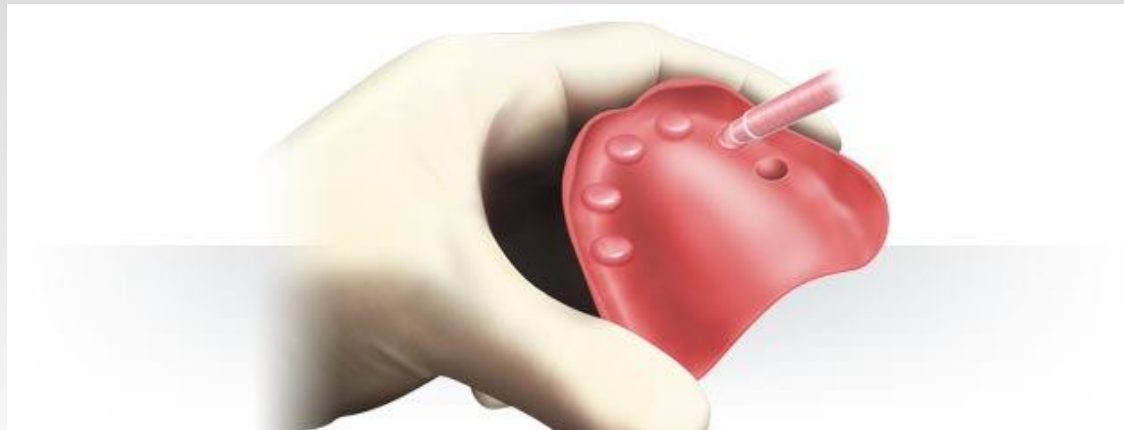


### 2. Tilting Angle & Various Retentive Caps of the Meg-Rhein

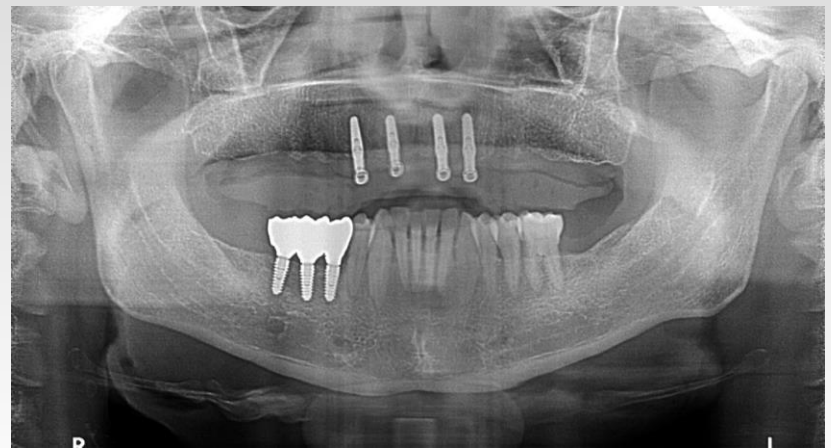














# Mandibular Implant Supported Denture

## Case Study – Mandibular Implant Case



## Case Study – Mandibular Implant Case



## Case Study – Mandibular Implant Case

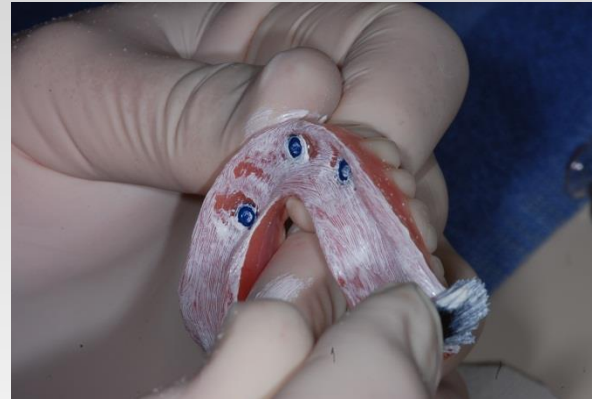




## Case Study – Mandibular Implant Case



## Case Study – Mandibular Implant Case





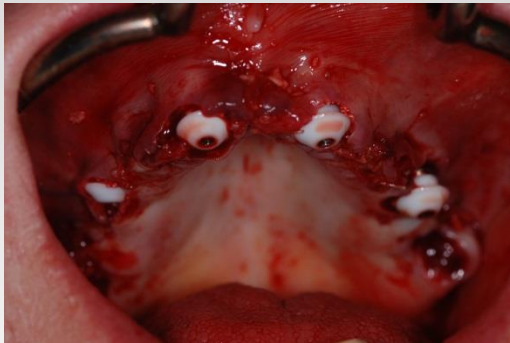
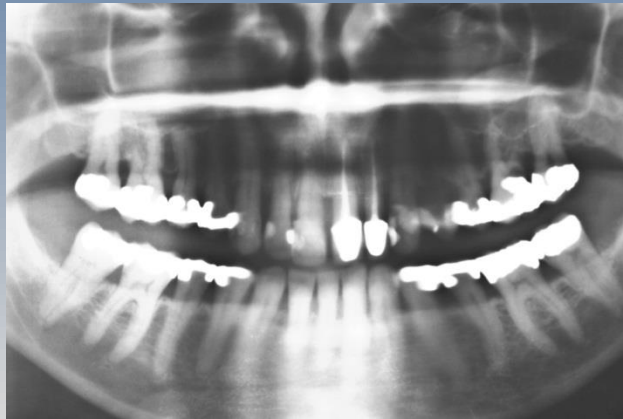
## Case Study – Mandibular Implant Case



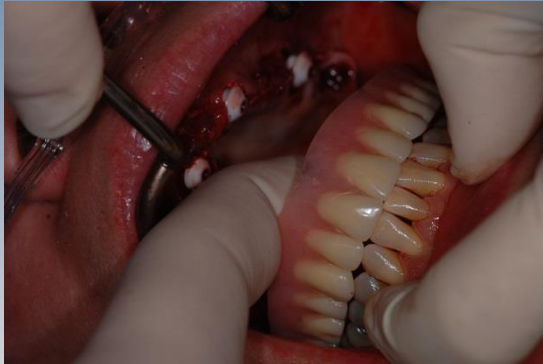
## Case Study

# All on Four Implant Reconstruction Temporary Denture

## Case Study – All on Four Implants



## Case Study – All on Four Implants



## Case Study – All on Four Implants

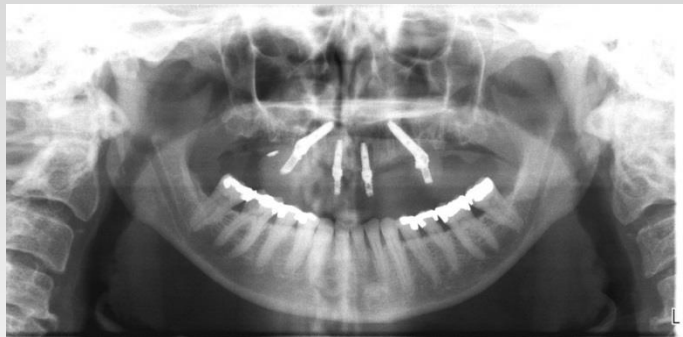


## Case Study – All on Four Implants

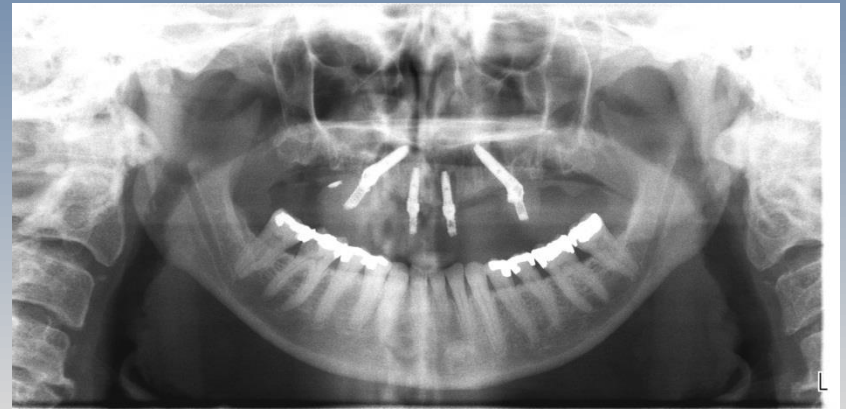




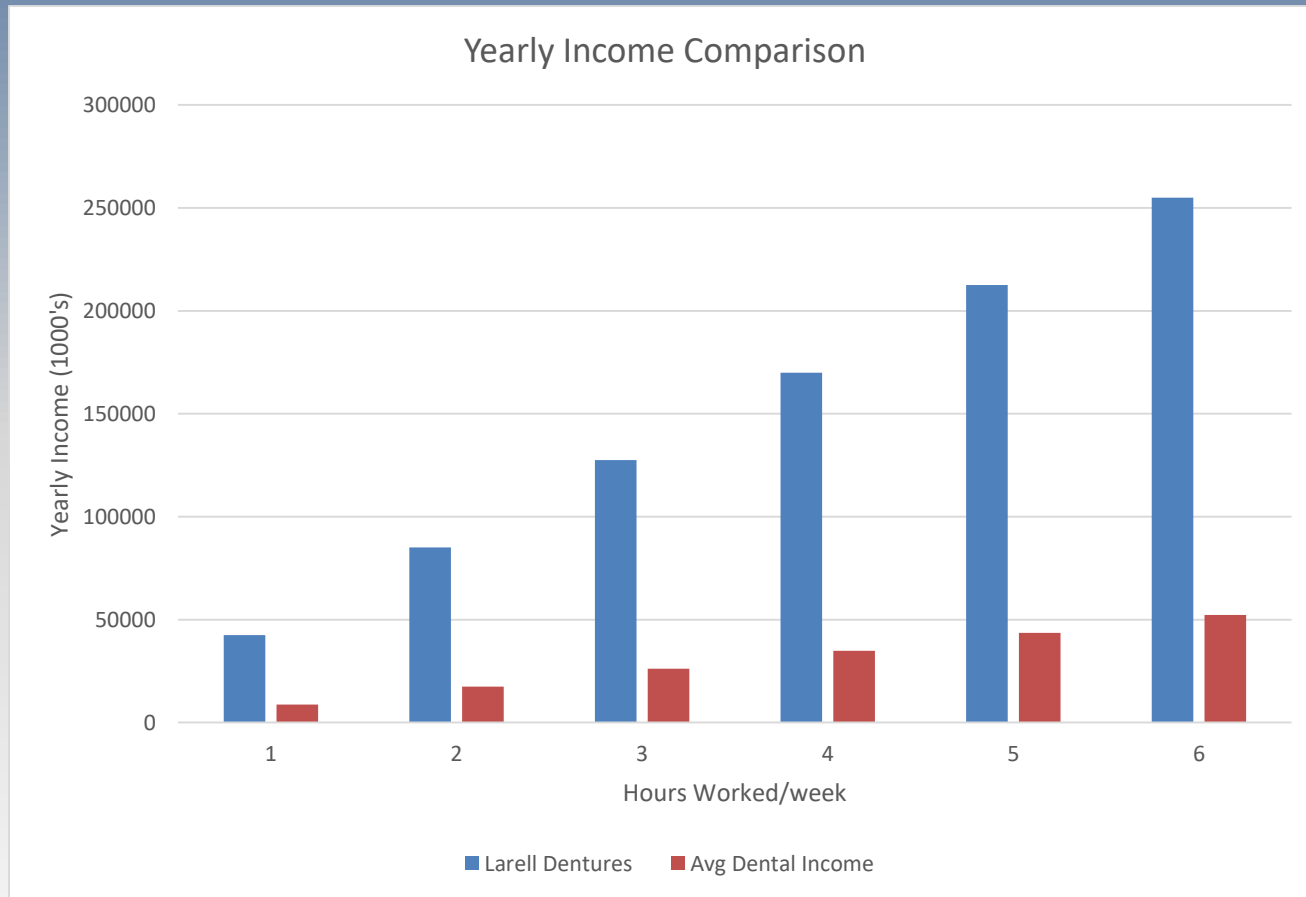
## Case Study – All on Four Implants



## Case Study – All on Four Implants



## The Real Economics



## Doctor Testimonials

“This technique has eased my stress levels and increased my production significantly.” Dr R Jackson, New York

“The technique was so easy I thought I did something wrong!”  
Dr M Link, Virginia

“I want to thank you for developing this system as it enabled me to actually be a part of changing lives...Thanks again for a wonderful technique and product.” Dr R Lunt, Oregon

“CR Evaluators and scientists found this concept is valuable for many patients who cannot afford custom dentures” Dr Gordon Christensen...Clinicians Report April 2015

## The Larell Difference

- Innovative one hour technique
- Intuitive, easy to learn technique
- Addresses major barriers to care
  - Access
  - Cost
- Ideal for immediate implant dentures
- Affordable for patient
- Great Revenue Stream and practice builder

## Contact Information



Dr Lawrence Wallace  
Phone 831.659.9300

[Larry@larell.com](mailto:Larry@larell.com)