The Alternative Denture

August 26, 2017
• 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

![Denture Patient Market Size (Millions)]

- **US Market**
  - 2010: 40
  - 2020: 52

- **Global Market**
  - 2010: 102
  - 2020: 164
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
• Adherence to Scientific Principles and classic prosthodontic literature
• Professionally accepted materials
• Patient satisfaction results
  ✓ Fit
  ✓ Form
  ✓ Function
  ✓ Meet Patient's expectations
It isn’t all about the occlusion
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

Dentures are not a replacement for teeth…They are a replacement for NO teeth
Factors Associated with Successful Denture Therapy

Robertta 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
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• **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

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- 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

- **Ease of Use**
  - Conventional Denture: 4.1
  - Larell One Step Denture: 4.05

- **Aesthetics**
  - Conventional Denture: 4.1
  - Larell One Step Denture: 3.9

- **Durability**
  - Conventional Denture: 4.05
  - Larell One Step Denture: 3.85

- **Fit**
  - Conventional Denture: 4.05
  - Larell One Step Denture: 3.95
The Larell Denture vs Traditional Denture - Patient Satisfaction

- **Ease of Use**
  - Conventional Denture: 4
  - Larell One Step Denture: 4.5

- **Aesthetics**
  - Conventional Denture: 4
  - Larell One Step Denture: 5

- **Durability**
  - Conventional Denture: 4
  - Larell One Step Denture: 4

- **Fit**
  - Conventional Denture: 4
  - Larell One Step Denture: 4.5
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
Clinical situations to use the Larell denture
✓ Complete Dentures
✓ Immediate Dentures
✓ Implant Overdentures
✓ Emergency Dentures
✓ Spare Dentures
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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
<table>
<thead>
<tr>
<th>Location</th>
<th>Date</th>
<th>Number of Dentures</th>
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<tbody>
<tr>
<td>Wise VA MOM Clinic</td>
<td>August 2011</td>
<td>100</td>
</tr>
<tr>
<td>CA MOM Clinic October 2013</td>
<td></td>
<td>102</td>
</tr>
<tr>
<td>Virginia MOM Clinic 2014</td>
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<td>112 dentures</td>
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<tr>
<td>CA MOM Clinic October 2014</td>
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<td>104</td>
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<tr>
<td>CA MOM Clinic March 2015</td>
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<td>98</td>
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<td>AZ MOM Clinic December 2015</td>
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<tr>
<td>CA MOM Clinic May 2017</td>
<td></td>
<td>113</td>
</tr>
<tr>
<td>AZ MOM Clinic December 2016</td>
<td></td>
<td>124</td>
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</tbody>
</table>
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
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
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.
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
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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
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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
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
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
Remake Implant Overdenture
Case Study – Remake Implant Overdenture
Case Study – Remake Implant Overdenture
Case Study – Remake Implant Overdenture

[Images of dental implants and dentures]
Case Study – Remake Implant Overdenture
Case Study – Remake Implant Overdenture
Maxillary Implant Supported Denture
Case Study – Maxillary Implant Case

[Images of dental implants and prosthetics]
Case Study – Maxillary Implant case
Case Study – Maxillary Implant Case
Case Study – Maxillary Implant Case
Case Study – Maxillary Implant Case
Divergent Implants
1. Small & Easy-to-Use Housing System

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

- Meg-Rhein
- Product K & L
- Product P

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

30°

- Yellow
- Pink
- White
- Violet

* Separate purchase available when required
Mandibular Implant Supported Denture
Case Study – Mandibular Implant Case

Image of a patient's face and mouth with dental issues.

Image of a dental X-ray showing the condition of the mandible.
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

Yearly Income Comparison

Yearly Income (1000's)

Hours Worked/week

1 2 3 4

Larell Dentures Avg Dental Income
“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
Dr Lawrence Wallace
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