

Advances In Prosthodontics™

New Findings & Best Practices for Cosmetic & Restorative Dentistry

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SPECIAL REPORT: Bite Reconstruction



Bite Lift: Opening the Vertical Dimension. When teeth start chipping or breaking for "no apparent reason," there's usually a reason. Over time, our bites (occlusion) can settle into patterns that cause wear, damage, and strain on teeth and joints. By re-establishing proper bite height - or vertical dimension - we can restore harmony, function, and esthetics. Sometimes this involves orthodontics, restorations, or even surgery. At RENU Prosthodontics, our philosophy is conservative excellence — doing just what's needed to achieve long-term stability and beauty. This patient's transformation required 4 appointments to deliver 5 crowns and Bioclear composite posterior overlays, rebuilding and opening his bite in a comfortable and conservative manner. We believe every smile deserves balance, not just beauty. **Read more on the next page...**

◆ Do you want another opinion on a complex case? Or to talk and share ideas?

There are many ways we can help each other by working together on complex cases and by sharing knowledge and experience.

If you'd like to discuss a treatment, or talk on the phone about how we can help each other, please call or email our office with specific days and times when you're available.

More Examples

Stay informed on new findings and best practices for cosmetic and restorative dentistry.

See more examples of complex cases online:



AdvancedProsthodontist.com
/ RenuPros

How We Address Compromised Occlusion

by the Specialists of **RENU Prosthodontics**

One of the main reasons for **bite reconstruction** is to restore the proper number, shape, and function of teeth that have been lost or damaged due to **wear, erosion, or abrasion**. Over time, this kind of wear can lead to issues such as a **deep bite, shortened or chipped teeth, and fractures**.

As you know, patients are often unaware of this gradual tooth wear because the body naturally compensates through a process called “**supra-eruption**.” As teeth wear down, they slowly erupt further to maintain contact with opposing teeth. Although this helps preserve chewing ability in the short term, it results in teeth that appear shorter while the inner structure moves closer to the **nerve**, increasing the risk of **sensitivity, fractures, and more complex dental procedures** later on.

By addressing these changes early with a carefully designed bite reconstruction, we can **prevent the need for more invasive treatments** such as crown lengthening or root canal therapy.

What Is Involved with Bite Reconstruction?

A **bite reconstruction** re-establishes harmony, comfort, and function by rebuilding the bite to its optimal position. The goal is to **restore proper tooth height, balance facial proportions, and achieve a stable, natural bite** that supports long-term oral health. This process may include:

- **Occlusal equilibration** – reshaping biting surfaces to remove areas of excessive pressure
- **Bite splint therapy** – using custom-fitted bite guards to support the jaw and protect teeth
- **Orthodontic correction** – repositioning teeth with braces or clear aligners such as **Invisalign®**
- **Restorative procedures** – replacing worn or failing restorations and rebuilding damaged teeth with **porcelain crowns or veneers**

Each treatment plan is customized to the patient's needs, ensuring a functional, comfortable, and aesthetic result.

The RENU Approach

At RENU Prosthodontics, our Prosthodontists take a comprehensive and technology-driven approach to bite reconstruction. Using **advanced diagnostic imaging, digital bite analysis, and precision planning tools**, we determine whether bite reconstruction is the best path to restore comfort, function, and longevity to a patient's smile.

Our goal is to **restore balance, protect natural teeth, and rejuvenate your smile** — helping each patient enjoy lasting confidence, health, and well-being.

If you have a patient with a complicated dental problem and you would like assistance in helping them, please contact our specialty office. It will be our pleasure to help with diagnosing, planning, or treatment execution for complex cases. **Types of cases we are often referred:** full mouth reconstruction, full arch implants, crowns on all teeth, and replacing missing teeth especially when it's a difficult situation - also custom complete dentures and partial dentures. **When patients are referred**, we refer them back to their general dentist for regular hygiene, unless advised otherwise by the referring office, depending on the patient and treatment. We will be in contact with your office every step of the way. If you have questions about our prosthodontic protocols or want to discuss a case, please call our office at: **(925) 425-7545**

◆ Do you have a patient with occlusal issues? Or another complex situation?

If you have a question about a case and want another opinion, give our office a call. Or, if there's a case that you want to work together on, please see the enclosed referral info sheet to learn more about what you and your patient can expect when referring to our specialty office. We will take great care of your patient and keep you informed. Dental professionals refer to us as **The Complex Case Specialists™** because we perform complex cases every day.

Randomized controlled trial on the performance of direct and indirect composite restorations in patients with severe tooth wear

Crins, et al. Dent Mater. 2021 Nov;37(11):1645-1654. doi: 10.1016

Objective

The study aimed to evaluate survival and failure behavior of Direct Composite Restorations (DRC) and Indirect Composite Restorations (ICR) on molars and anterior teeth, in a Randomized Controlled Trial (RCT).

Methods

Patients with generalized severe tooth wear were included, and randomly assigned to one of 2 protocols: (1) DCR: All teeth were restored with directly applied micro-hybrid composite restorations (Clearfil AP-X, Kuraray) for load bearing areas and nano-hybrid composite restorations (IPS Empress Direct, Ivoclar Vivadent) for buccal veneers; (2) ICR: First molars were restored with indirect composite 'tabletop' restorations and maxillary anterior teeth were restored with indirect palatal veneer restorations (Clearfil Estenia C&B, cemented with Panavia F, Kuraray). Remaining teeth were restored directly. Restorations were evaluated after 3 years, focusing on clinical acceptability. Statistical analysis was performed using Kaplan Meier curves, Annual Failure Rates (AFRs), and univariate Cox regression analyses ($p < 0.05$).

Results

41 patients (age: 36.6 ± 6.6 y) were evaluated after 3 years (40.0 ± 2.2 m). 408 restorations on first molars and palatal veneers on maxillary anterior teeth were part of this RCT, with 220 DCRs and 188 ICRs. No differences in survival between treatment modality for palatal veneers for any failure criteria were found. Tabletop restorations on first molars showed a considerable higher failure rate for ICR compared to DCR ($p = 0.026$, HR: 3.37, 95%CI = 1.16-9.81).

Significance

In this RCT, directly applied composite restorations showed superior behavior compared to the indirect composite restorations, when used in the molar region.

Important Note:

Bioclear posterior overlays are direct composite restorations that can be used to correct occlusion for patients with wear. Bioclear builds directly onto the tooth using a heated, injectable composite resin that flows into place. This rebuilds chipped or worn edges, and creates smooth, natural contours. In addition to correction occlusal issues by reshaping worn posterior teeth, Bioclear can also be used for anterior esthetic reasons - such as filling in black triangles or as an alternative to indirect veneers.

The Specialists of RENU Prosthodontics are certified in Bioclear method and can offer your referred patients same day corrections to improve their function and esthetics.

If you have questions about our prosthodontic protocols, please call us at: **(925) 425-7545**

◆ How can a Prosthodontist assist you and your dental team?

We specialize in the treatment of complex cases, usually involving several procedures over months of care. The next time you see a challenging case, please feel free to call us and we can discuss treatment planning or help you with any part of the treatment. Our goal is to be a resource for your office by helping manage difficult and time-consuming procedures, restoring the function and esthetics that the patient desires, then referring them back to your office for their ongoing care.

ABOUT OUR SPECIALTY PRACTICE

Renu Prosthodontics is a comprehensive, specialty practice that focuses on the restoration and replacement of missing teeth with natural-looking, well-fitted, comfortable prosthetic teeth. The Renu Prosthodontics team has training and private practice experience that make treatments of complex cases more successful, including the following examples:

- Patients with severely worn/damaged teeth, missing all teeth, or with ill-fitting dentures can receive a full arch of natural-looking teeth to restore function & esthetics.
- Patients with congenital defects, a chronic condition, or traumatic injury can receive oral prostheses, which may be a combination of dental implants, crowns, bridges, or veneers.
- Patients with difficult anterior cases in the esthetic zone can receive single or multiple dental implants to replace missing teeth, or veneers or crowns to improve the appearance of their smile.



RENU mission: Restore smiles, Enhance lives, Nurture trust, and Unite communities through exceptional prosthodontic care!

In addition, Renu Prosthodontics is equipped with an **in-house dental lab**, for your referred patients to receive custom restorations from the best materials using the latest technology.

Learn more about how we can help your patients by scanning this QR code:



Dr. Maggie Chao and Dr. Olivia Nguyen are specialists in prosthodontics and available to help you and your patients with complex cases.

In-house Dental Lab where we make customized dental prosthetics



Our in-house dental lab blends advanced digital design, precision 3D printing, and best-practice analog techniques to deliver fully customized restorations for every patient. By integrating modern technology with expert craftsmanship, we ensure exceptional fit, function, and esthetics — efficiently and seamlessly, all under one roof.

Our 3D-printed solutions include: surgical guides, clear retainers, dentures, and flexible partials — providing efficient turnaround times and precise, patient-specific results.

◆ Have you seen a patient in one of these situations?

These are the most common reasons why other dentists refer to a Prosthodontist:

- **Failing Restorations** — Broken or worn prosthetics, or poorly-fitting dentures
- **Implant Complications** — Mal-positioned or loose implants, or multiple systems
- **Severe Wear** — Advanced attrition from grinding or erosion, and collapsed vertical
- **Terminal Dentition** — Perio disease or neglect, requiring extractions and prosthetics
- **Edentulous Problems** — Resorbed ridges or lack of bone, wanting a fixed solution
- **Occlusal Issues** — Advanced mal-occlusion, jaw discrepancies, canted plane
- **Challenging Esthetics** — Un-esthetic restorations, high smile line, high expectations
- **Missing Anteriors** — Central incisors from trauma or laterals from genetics

Our Pledge

When your patient is referred:

- ✓ We will only treat what your patient needs.
- ✓ We will send you updates.
- ✓ We will be part of your team, not take over your patients.