Increase clinical results by *eliminating* Occlusion Confusion!

✓ Treat TMJ and bite problems more successfully without splints and appliances
✓ Increase productivity by eliminating remakes and extra visits
✓ Implement occlusal practices predictably

Over the last decades, materials and techniques have rapidly evolved in dentistry. These advancements, along with a **comprehensive understanding of occlusion and function**, are a must to be successful in today's dental practice. This program will highlight some of the concepts and techniques required to integrate sound computer-guided occlusal principals to synergize beauty and function.

Dentists are now able to quantifiably relate articulating paper markings to real-time occlusal contact force data (through computerized occlusal analysis). This information is invaluable in developing natural tooth, prosthetic, and implant occlusal schemes. This course will illustrate the numerous applications that computerized occlusal analysis offers to significantly improve today's occlusal therapy and raise it to 21st Century Standards.

If Paper Markings Could Talk, What Would They Say?

Published research indicates that **articulating paper marks illustrate contact location *only*.** Because they are subjectively observed and not measured, paper marks don't accurately guide occlusal treatment. Additionally, computers are proving that using patient subjective response to occlusal feel as a measure of occlusal balance is a poor indicator of occlusal precision.

SUGGESTED FORMAT:
Full- or Half-Day, Keynote,
Hands-on Workshop

SUGGESTED AUDIENCE:
Dentists and Team Members

LEARNING OBJECTIVES:

- Understand modern computer-based concepts of occlusion

- Recognize the importance of anterior guidance and *measurable posterior disclusion time*

- Review the relationship of occlusal findings to the masticatory musculature

- Determining hyperoccluded contacts and treating occlusal force excess, occlusal pain, and cold sensitivity

- Gain the knowledge to design restorations that function within the known, measurably physiologic T-Scan occlusal norms

- Learn how to treat in maximum intercuspation (MIP), where you do all of your daily dentistry and your patient is most natural

- Realize that articulating paper markings are not accurate describers of occlusal force

- Observe the clinical employment of computerized *occlusal analysis* to precisely *optimize the occlusal end results*

- Improve prosthetic insertions by analyzing time vs. force measurements to guide occlusal corrections

LEVEL 1

ROBERT B. KERSTEIN, DMD
Digital Occlusal Education

Digital Occlusal Treatment of Chronic Muscular **TMD** Symptomatology

Research has repeatedly shown that occlusal contacts play a definitive causative role in the etiology of the muscular TMD symptoms. This course will describe the prolonged excursive friction/muscle hyperactivation neuroanatomy that is responsible for the development of chronic TMD muscular symptoms. It will also detail some of the studies that validated this computer-guided occlusal treatment method, while illustrating how to perform this successful TMD therapy that does not require the patient to wear a splint, deprogrammer, orthotic, or appliance.

Learning objectives

- Understand the clinical differences between *visual* posterior disclusion and *measurable* immediate posterior disclusion
- Understand how the neurophysiologic etiology of muscular TMD symptoms through the long disclusion time – excursive muscle hyperactivity physiology, creates the ischemic muscle pain commonly observed in TMD patients
- Understand how the T -Scan and BioEMG simultaneously record and illustrate both the excursive friction and the resultant masticatory muscle hyperfunction that causes the ischemia
- Learn how to significantly and permanently lessen excursive muscle hyperactivity and reduce clinical ischemia thru computer-guided occlusal therapy
- Understand how to treat muscular TMD without intraoral orthotics, appliances, mouthguards, and deprogrammers
- Recognize that measured and un-measured occlusal adjustment procedures are NOT the same clinical process for the operator or the patient, and that all TMD therapeutic occlusal adjustment procedures are not "equilibrations"

Digital Occlusal Analysis **Implant** Applications

It is well documented that occlusal force overload can result in de-osseointegration of dental implants, mechanical failure of implant parts or screws, and fractures of veneered occlusal surface materials. Full arch implant prostheses can be torqued and flexed from aberrant occlusal forces while segmental implant prosthesis often hold up the proper occlusion of their neighboring teeth, because their rigidity makes them absorb too much occlusal force. The digital approach to occlusal analysis offers the clinician significant advantages over other commonly employed occlusal adjustment techniques. By combining a PowerPoint presentation, with actual implant prosthesis recorded occlusal contact digital data, this presentation describes the clinical implant applications of computerized occlusal analysis.

Learning Objectives

- Understand that occlusal force and contact timing simultaneity are not reliably measured with articulating paper marks
- Learn how to employ the digital occlusal analysis with full arch implant prostheses and mixed arches where teeth and implant prostheses reside together
- Illustrate how digital occlusal analysis can be used to force-map and time-sequence occlusal contacts
- Recognize how measured occlusal force corrections on implant prostheses improve longevity, lessen material breakage and optimize patient comfort, post insertion

SUGGESTED FORMAT:
Full- or Half-Day, Hands-on Workshop

SUGGESTED AUDIENCE:
Dentists and Team Members

LEVEL 1, continued

ROBERT B. KERSTEIN, DMD
— Digital Occlusal Education —

Using Digital Occlusion Analysis During **Prosthodontic** Case Insertion

When used during prosthesis insertion, digital occlusal technology accurately detects problematic occlusal contacts so a Clinician can target, and adjust, regions of excessive force that can become problematic for the patient comfort. Post-insertion occlusal difficulties greatly impact dental office efficiency, as unwanted "extra occlusal adjustment visits" interfere with the clinicians' daily schedule, increase frustration and induce stress between the patient and the clinician when the problems persist despite repeated attempts to resolve them with further occlusal treatment. Using digital occlusion technology at case insertion eliminates very common prostheses insertion occlusal problems, and ensures far less office time is wasted on unwanted "extra occlusal adjustment visits". This presentation will illustrate how digital occlusion can help a clinician to predictably improve all forms of prosthetic case occlusal outcomes.

Learning Objectives:

- Understand that articulating paper marks do not accurately describe occlusal force and contact timing, and that choosing them for adjustment *subjectively*, based upon their size, has been shown in studies to be a highly unreliable method of selecting contacts for treatment
- See how to employ digital occlusal analysis with full mouth reconstruction, and with fixed and removable prosthetic combinations involving complete dentures and implant overdentures, to install an occlusal force profile that is balanced and centered within the middle of the arches
- Illustrate how digital occlusal analysis can be used to force-map and time-sequence occlusal contacts to establish measurable bilateral simultaneous contacts
- Recognize how measured occlusal force corrections made to crown and bridgework, and fixed and removable prosthetic combinations, can optimize patient comfort post-insertion, thereby lessening the number of unwanted occlusal adjustment visits

Digital Occlusal Technology and Controlling the Overload of **Esthetic** Restorations

Today's esthetic restorations are both beautiful and fragile. Protecting them from occlusal force overload is paramount to their long-term survivability, but that is difficult to do when employing traditional occlusal indicators, which have no occlusal force detection capability. By using computerized force and timing data, the clinician can better prolong the life of the fragile esthetic restoration, while greatly improving overall patient occlusal adaptation.

Learning Objectives:

- Understand that brittle adhesive restorations cannot be evaluated occlusally prior to bonding them to place
- Realize that obtaining reliable interocclusal records with un-bonded adhesive restorations increases case errors at insertion, making insertion occlusal adjustments more difficult than in cases where many lab remounts are possible
- Visualize with T-Scan data, the "g*lancing blow*" damaging contact phenomenon. A glancing blow is a fleeting, short duration, high force contact that can readily crack and chip an all-ceramic restoration
- Illustrate how digital occlusal analysis improves porcelain veneer insertion procedures using actual T-Scan data to describe both the adjustment sequences performed and the occlusal force and timing improvements obtained.

SUGGESTED FORMAT:
Full- or Half-Day, Hands-on Workshop

SUGGESTED AUDIENCE:
Dentists and Team Members

LEVEL 1, continued

ROBERT B. KERSTEIN, DMD
—— Digital Occlusal Education ——