Computerized occlusal analysis is a PC based diagnostic and clinical treatment system available to Prosthodontists with which to understand occlusal contact functional and parafunctional forces, contact timing sequences, and occlusal surface interface pressures, which arise as teeth mill against each other during mandibular movements. Because recent published research on articulating paper has revealed that articulating paper mark size does not measure occlusal forces predictably, the modern Prosthodontist needs to employ an occlusal contact measuring device that can reliably determine aberrant occlusal force concentrations and time prematurities. During a prosthesis installation (either natural tooth born, or implant supported), computerized occlusal analysis can be employed to target excessive force concentrations, and optimize occlusal contact time sequences, thereby measurably improving occlusal balance and contact simultaneity, to better preserve the dental materials, than can be accomplished with “articulating paper-only” occlusal adjusting. This introductory presentation will illustrate various applications that computerized occlusal analysis offers the Prosthodontist in implant prosthodontics, and fixed and removable conventional Prosthodontics.

Key Points:

- Commonly used, non technology based occlusal indicators, do not measure occlusal force, and cannot determine time sequencing.
- Force-Mapping and Time-sequencing of occlusal contacts can be readily employed to idealize occlusal end results precisely, case after case.
- Since 1990, some of the published applications of computerized occlusal analysis technology include Prosthodontic case finishing, implant force control, contact ordering when implants and teeth exist in the same arch, splint-free TMD treatment, complete and partial prostheses occlusal design, and painful tooth contact precision isolation.

Robert B. Kerstein received his DMD degree in 1983, and his Prosthodontic Certificate in 1985, both from Tufts University School of Dental Medicine. Dr. Kerstein’s now 27 years of research with the T-Scan I, II and III Computerized Occlusal Analysis Systems, has led to his becoming the leading author and clinician in the field of Computerized Occlusal Analysis. Dr. Kerstein maintains a successful private practice that is limited to Prosthodontics and Myofascial Pain Dysfunction in Boston, Massachusetts.