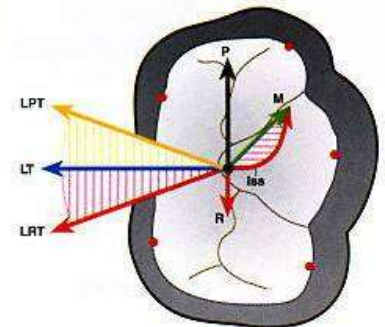


Advanced Dental Occlusion

A Simplified Approach That
Yields Maximum Results





Art & Science

- The art and science behind the making of dental restorations has been reached by most dental laboratories and clinicians. Beautiful, lifelike reproductions of teeth can be created with a variety of different techniques and materials.



Manufacture's Advertising

- Dental manufacturers have spent millions of dollars in the hopes of persuading you that their restorations will look and function better than the rest.

Gramm



belleGlass HP



In-Ceram

	single anteriors	anterior bridges	single posteriors	posterior bridges	Inlays	onlays	veneers
In-Ceram Spinnell	X				X	X	X
In-Ceram Alumina	X	X	X				
In-Ceram Zirconia			X	X			





Beautiful Smiles

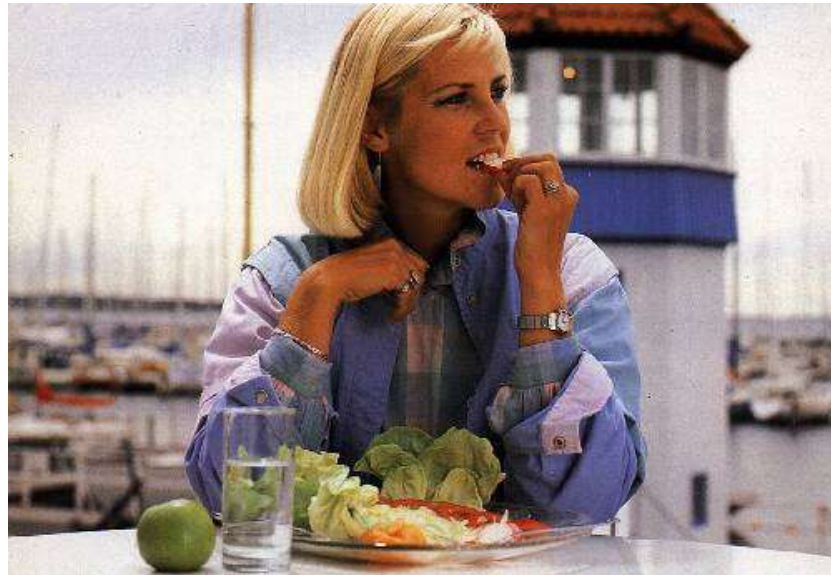
- When in reality, applied with the knowledgeable skill and dedication of today's technologists and clinicians, shape, shade, and texture can all be applied to create beautiful smiles.





But What About Function?

- How will these beautiful smiles we create today hold up to the rigours of mastication and occlusal forces?





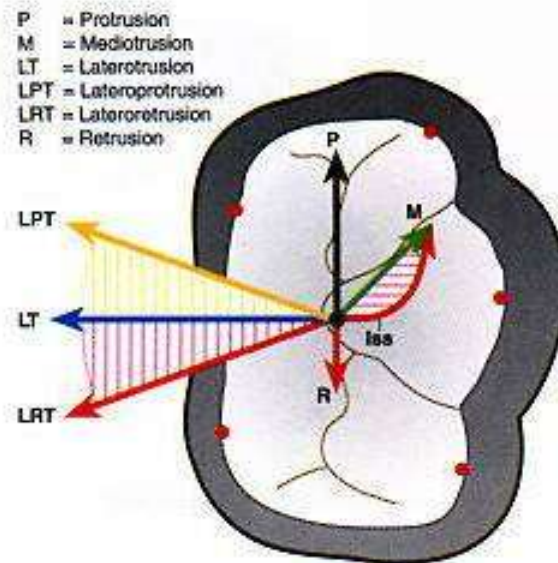
Looking for Answers

- When fixed restorations break, removable appliances do not function properly, and splints fail to alleviate pain, do we immediately blame the material or do we choose to look deeper into ourselves? Do we dare question the process we use and search for a more predictable one?



Concept of Occlusion

- One of the most overlooked and misunderstood aspects in modern dentistry is the concept of Occlusion.





Confusion



- Occlusion has baffled many practitioners because it appeared more complex than it really is. With the movement over the past decade of “Cosmetic Dentistry” the concepts of occlusion were put on the back burner.





Looking Ahead

- Many clinicians, confident with their cosmetic successes are now taking a closer look at “Occlusal Concepts” and seeking procedures that can provide for better function and long term clinical success.





Teeth Work In Harmony

- Teeth need to work and function in harmony with each other. They must provide for maximum interdigitation in function and working contacts. At the same time they must allow for the free range of motion provided by the reduction of interferences in movement.



The Simple Hinge Articulator

- Plastic, disposable hinges have provided for the simple mounting of casts together, however they do nothing to relate the dentition to the patient's condyles and thus provide none of the information needed to create free function.



Attempts at Occlusion

- There are many manufacturers who in the past made attempts to resolve occlusal concerns. They created delicate articulators and complex procedures to solve occlusion issues. But their attempts focused solely on the apparatus and provided for less than satisfactory results.





KaVo Creates a Solution

- The people at KaVo have developed the Protar Articulator System that combines the accuracy, the stability, and the ease of use that clinicians today demand.



The Protar Articulator

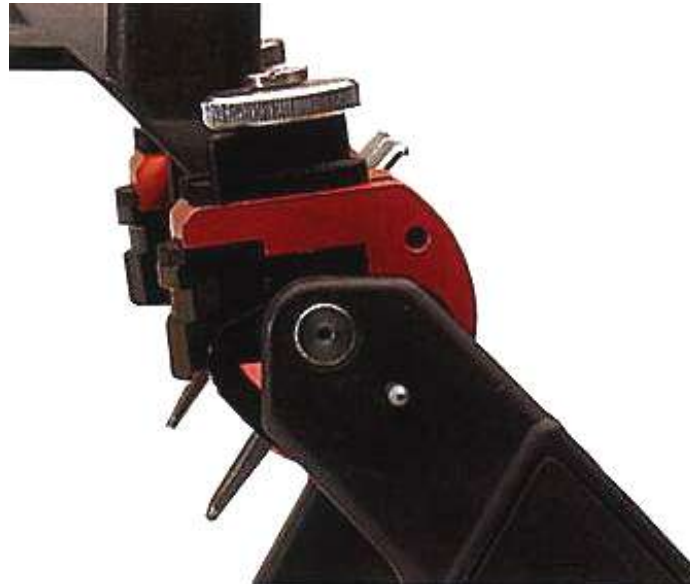
- By utilizing the Protar Articulator in conjunction with the Arcus Face Bow and programmed accurately with a series of bite registrations, advanced occlusal concepts can be realized.





The Protar Articulator

- Advantage
 - The Protar Articulator has an absolutely precise centric lock.



The Protar Articulator

- Advantage

- The mounting plates are magnetically held in place for ease of removal and transfer of casts from the articulator in the lab to the articulator in the dental office.



The Protar Articulator

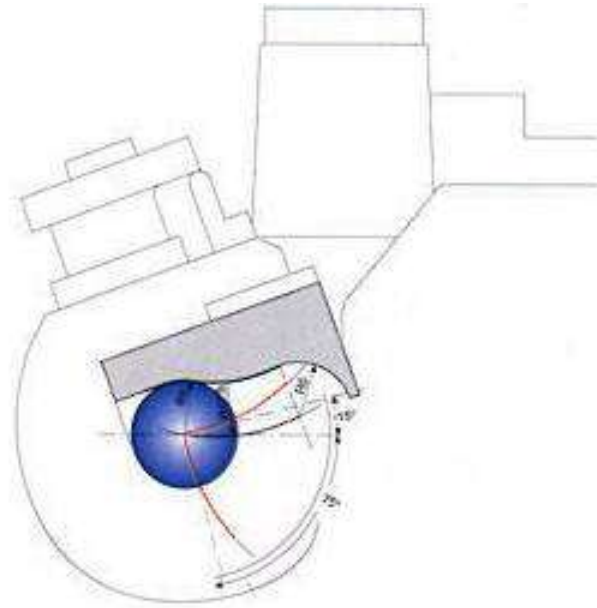
- Advantages

- The Protar Articulator features a curved guidance, however both the Bennett angle and the condylar path inclination can also be adjusted.



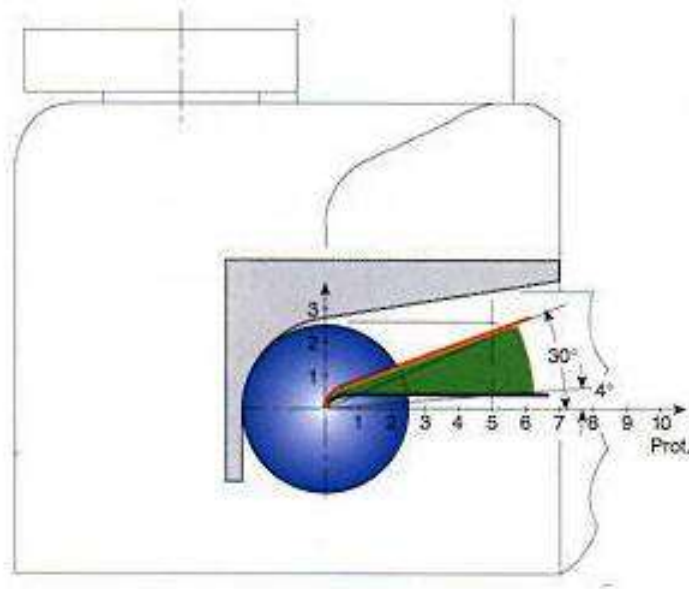
A Matter of Adjustments

- Adjustable Sagittal Path



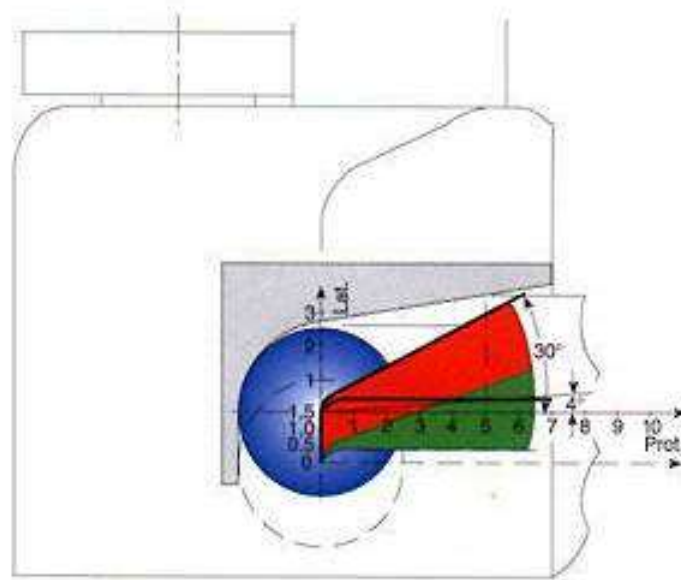
A Matter of Adjustments

- Adjustable Bennett Angle



A Matter of Adjustments

- Adjustable Immediate-Side-Shift



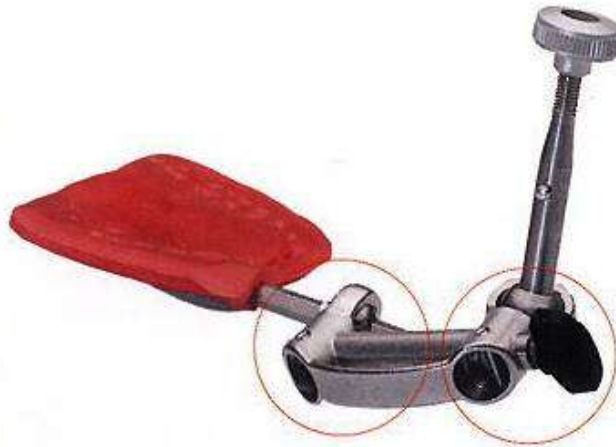
The Arcus Face Bow

- Advantage
 - Can be aligned at the patient's head in just a few minutes, without the need for tools.



The Arcus Face Bow

- The positioning of the upper teeth vis-à-vis the TMJ can be precisely established - safely, effortlessly, and without any assistance.



The double lock bite fork support has only one knob to lock both universal joints.





The Aqualizer Appliance

- It's function is designed to relax (deprogram) the muscles of mastication. When the muscles are relaxed, centric relation (CR) is easily and accurately reproducible.

the AQUALIZER™



- For more information on the Aqualizer Appliance visit the "Tips" section of our web site at www.klauszdentallab.com





Centric Relation

- In its simplest definition, Centric Relation is a pure rotational movement of the mandible.
- A smooth arc of the mandible from an open position to the first point of occlusal contact in the closed position.
- The occlusal scheme and the muscles of mastication distort this position and the Aqualizer Appliance helps to temporarily remove them from the equation.





The Clinical Procedures Needed to Program the Protar Articulator

- The steps needed to provide advanced occlusion for fixed restorations, removable dentures, and occlusal splints follow the same basic procedures.



The 1 Minute Arcus Face Bow

- The use of a semi-rigid bite material such as "Take One Bite" by sds kerr is recommended.
- The bite material must be injected along the full surface of the bite fork.
- Place the bite fork intra-orally and have the patient close down ensuring it is centered.



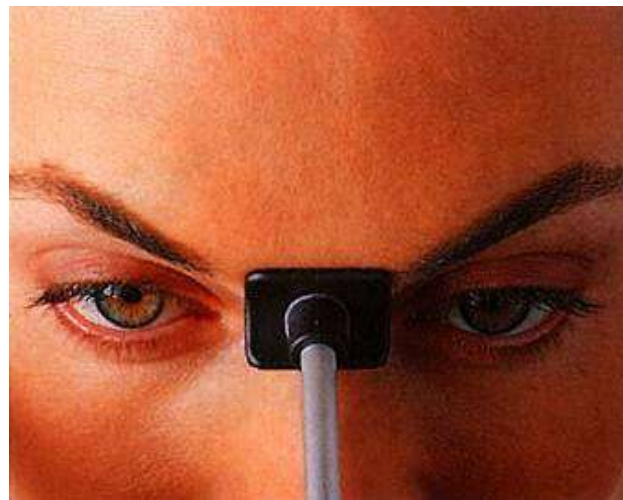
The 1 Minute Arcus Face Bow

- Place the ends of the face bow into the patient's ears with a slight pull forward.
- When the arms feel secure, the latch can be moved to the locked position.



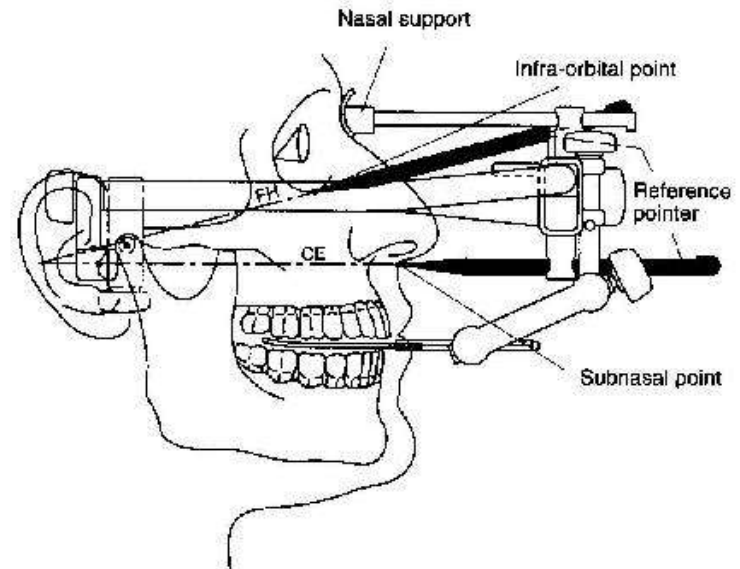
The 1 Minute Arcus Face Bow

- Slide the nasal piece forward until pressure is applied to the Glabella-nasion area for support of the face bow arch.



The 1 Minute Arcus Face Bow

- To ensure the proper horizontal plane is achieved, a pointer can be placed into position at the subnasal point (Campers Plane) or into the infra-orbital point (Frankfort Plane).



The 1 Minute Arcus Face Bow

- The bite fork and the face bow are now attached together with the universal locking hinge.
- The first hand screw is tightened to the face bow.



The 1 Minute Arcus Face Bow

- Next, the second hand screw is tightened to lock the 2 universal ball joints together.



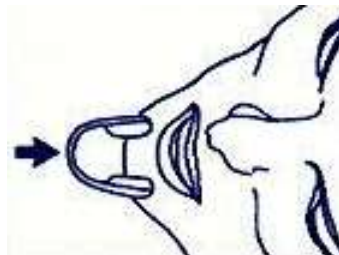
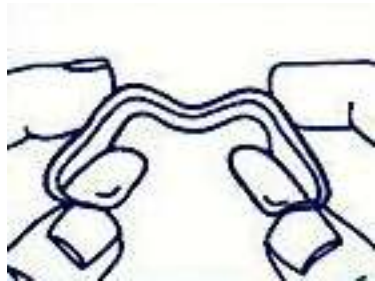
The 1 Minute Arcus Face Bow

- It's that simple!
- With a little practice, you will be able to set the face bow in less time than it takes for your bite registration material to set.



Deprogramming of the Masticatory Muscles

- The Aqualizer is designed as a miniature water balloon that evens out occlusal pressures, thus taking the masticatory muscles out of spasm.
- It is placed between the two arches and the patient is directed to close down on it with light pressure for ten minutes.





Deprogramming of the Masticatory Muscles

- After the time has elapsed, the patient is instructed to open and remain this way while the Aqualizer Appliance is removed. Now, with the muscles deprogrammed, the clinician can guide the patient's mandible until occlusal contact is achieved.
- This is their true CR position and should be captured with bite registration material.



Additional Bite Registrations

- The final series of bite registrations are taken.
 - Centric Occlusion
 - Protrusive
 - Right Working
 - Left Working



Articulator Programming

- The casts, the bite fork & locking mechanism, and the series of bite registrations are now sent to the lab for cast mounting and articulator programming.



An Average Value Mounting

- If edentulous models are to be articulated using average values, the the Average-Value-Jig can be used.



An Average Value Mounting

- The same can be done with partially edentulous models.





A System For All Cases

- The basic procedures previously described can be modified and applied to a variety of clinical situations.
 - Fixed Restorations
 - Removable Dentures
 - TMJ Splints & Bruxism Appliances





Fixed Restorations

- Crowns and Bridges
- Implant Restorations



Removable Dentures

- Complete dentures can be set-up easily with balanced occlusion for greater stability without lateral interferences.
- Partial dentures can be created with less stress placed on abutment teeth due to the elimination of premature interferences.



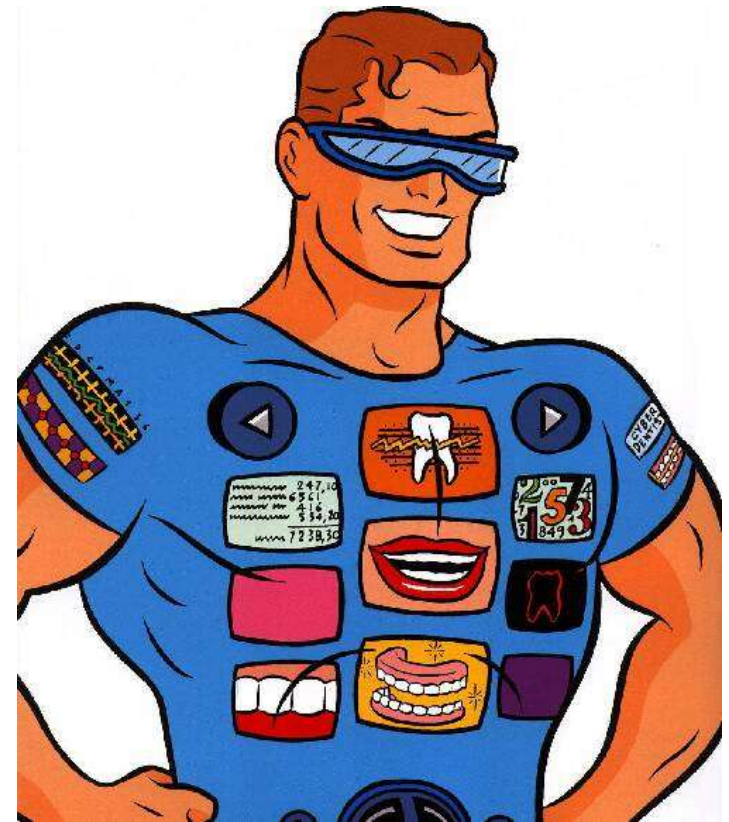
TMJ & Bruxism Splints

- These types of appliances can be made with occlusal schemes designed by the patient's individual condylar movements. This will reduce the effects of wear on the dentition and greatly reduce the time it takes to alleviate pain.



Doctor Occlusion

- Dental occlusion doesn't have to be complex and difficult to understand. If you have the right tools and an understanding of a few basic concepts, you can restore your patients with not only natural aesthetics but ideal function as well.





Working Harder & Smarter For Your Practice!

At Klausz Dental Laboratory, we are continuously improving on the quality of the restorations and the services we offer our clients. This is why we recommend the Protar Articulator, the Arcus Face Bow, and the Aqualizer Appliance. They meet the high standards of quality, accuracy and clinical reliability that we insist upon.

