

What Are the Fundamentals of Occlusion?

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Context

- Once dentists leave dental school and begin clinical practice, their attention can quickly become focussed on the single tooth, rather than the functional system it works in.
- Though dentists may develop a good level of competency in looking for decay, doing fillings, crowns, looking for perio etc., there is a real lack of confidence in the average general practice in looking at the mouth as a functional unit.

Occlusion

- There is no ideal philosophy when it comes to occlusion, but there are some important concepts.
- Patients come in all shapes and sizes.
- Not necessarily looking for ideal, but appropriate. There are many ways to be right.

Mutually Protected Occlusion

- The back teeth are well designed for dealing with vertical forces.
- The front teeth are good at taking off-angle loads.
- When a patient closes, we want the back teeth to touch a little harder than the front teeth, because we want them to take the bulk of the load.
- But as soon as the patient starts to move forward or to the side, we want the front teeth to separate the back teeth.
- Doing this will eliminate several posterior interferences on the working and balancing sides.

What to Look for in Anterior Teeth

- No Fremitus.
- Contact strength lighter than posterior.
- Protrusive and lateral guidance that eliminates working and balancing contacts on posterior teeth.

What to Look for in Posterior Teeth

- Co-ordinated centric contacts – all back teeth touch at the same time.
- Minimal CO/CR shift.
- Contacts that direct forces along the long axis of teeth.
- No posterior lateral interferences.
- Level plane of occlusion.

Excursive Movement and Cuspid Guidance

- In protrusive position, would like as many co-ordinated straight guidance lines on the anterior teeth as possible. There will be variation in this, because people are variable.
- In a healthy occlusion, would like cuspid disclusion because it is simple, easy and very functional.
- In cuspid guidance, do not want any of the posterior cusps on the working side to touch, and do not want any of the cuspid planes on the balancing side to touch.
- Cuspid guidance is a simple design to create a healthy, non-destructive occlusion.