Occlusal Analysis
(Analysis of the Bite)

An occlusal analysis is a procedure in which study casts of your teeth are accurately related on a special instrument called an articulator. How a person’s upper and lower teeth fit together is determined not only by the relationship of the teeth, but also by the jaw joint and muscles. This relationship is recorded with the jaw joint in its normal relaxed position, and without allowing any poorly positioned or misshapen teeth to guide its closure. The mounting of the casts on the articulator gives the dentist a replica of the articulation of the opposing upper and lower teeth to each other, and their relationship to the hinge point (center of rotation) of the joint.

When should an occlusal analysis be done?

- Before crown and bridge, denture or implant treatment.
- Before fabrication of any bite guard.
- Before and after orthodontic treatment.
- When there is evidence that a poor bite may be contributing to:
  - worn or broken teeth
  - gum recession, sensitivity at the gum line
  - facial muscle pain
  - loose teeth, bone loss associated with gum disease

How does my dentist do a bite analysis?

First, impressions (molds) of your teeth will be taken to make accurate stone or plaster models.

The next step will then be to take an imprint of how your teeth come together. This is a bite registration.

The path the lower jaw takes in its socket is unique for each individual and dictates the shape of the teeth necessary for proper function. The dentist may need to record a tracing of this path.

After the appointment, your dentist will use these recordings to accurately mount the upper model with the facebow and your lower model with the bite registration. They will be mounted on the articulator, which replicates your bite.

An occlusal analysis is absolutely necessary to properly diagnose and treat a bite problem and can help ensure that the dentist has the information needed to provide you with healthy, comfortable and attractive teeth for a lifetime.