**Locking Overdenture Attachments**

**A Solution to Lift-Off**

**Question:** What are the advantages and indications for locking attachments?

**Answer:** Bar type overdentures have been recognized for many years to be superior to conventional full dentures for reasons of retention and stability. A retentive and stable restoration functions more efficiently and is more comfortable for the patient. There has been a significant increase in the prescription of bar type overdentures in recent years, correlating with the growth in implant treatment.

Retention for implant bar overdentures is commonly provided by retentive elements positioned over the bar or extension, such as the CM Rider/clip or ORS DE Plus O-Ring attachment. **Fig. 1**

While these attachments vastly improve the retention of removable restorations, they are unfortunately, vulnerable to lift-off caused by cantilever forces. Pressure on one aspect of the overdenture creates lift-off in the opposite aspect either anterior to posterior or side to side. **Fig. 2**

A solution to lift-off is found with locking attachments that engage under the bar or through a hole in the bar or extension. Plunger attachments such as the Lew Passive, SwissLoc, MK1 or latch type attachments such as the Swivel Loc and are all classified as locking attachments. **Fig. 3**

Since locking attachments engage under the bar or extension, lift-off is prevented even with class II jaw relationships. Locking attachments also prevent lateral movements, which often create tissue sore spots. **Fig. 4**

To provide resilient hinge tissue supported function, a plastic or metal clip may be positioned in the center with locking plunger attachments such as the SwissLoc, placed under the bar distally. For solid implant supported function, a milled telescopic restoration can be fabricated using a locking plunger or Swivel Loc attachment. **Fig. 5**

**Summary:**
Understanding the fundamentals of conventional as well as locking bar attachments allows for the construction of removable restorations that are stable, functional and more comfortable for the patient.