"Eliminate Rock and Roll Forever"

Soft Tissue Supported Overdentures retained by implants are NOT supposed to "rock". By its very definition the support for a Soft Tissue **Supported** Overdenture is supposed to come entirely from the soft tissue, not from the implants. The function of the implant is to prevent vertical dislocation of the denture and prevent the denture from moving laterally. An overdenture that "rocks" on an implant means that the implant is taking all the vertical loading. One, two, three or four implants retaining an overdenture are not designed to take all this load. If "rocking" is not corrected, cervical bone loss and eventual failure of the implant will result.

To date, every attachment designed to retain Soft Tissue Supported Overdentures whether it is a ERA, Locator, Magnet, CVA ball or Zest ball has the potential to "rock. All these designs have an absolute clearance distance between the base of the attachment and the top of the abutment (Fig 1). Whether through poor positioning of the attachment in the denture, resorption of the alveolar ridge, thickening of the mucosa or excessive loading of the denture by the patient; once the denture settles beyond this this predetermined distance, the base of the attachment will contact the top of the abutment (Fig 4). **The denture now becomes implant supported as opposed to soft tissue supported**.

Fig 1: Drawing of Locator attachment showing gap between attachment and top of the abutment,

Fig 2: Drawing of O ring attachment showing O ring in ideal position below rounded ball

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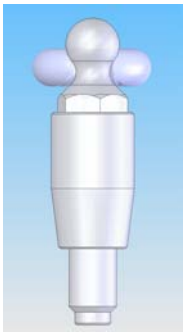

Fig 3: Drawing of Toadstool abutment showing O ring in ideal position below flattened Toadstool.

Although rubber O rings are a better designed to absorb stresses in there is an inherent resiliency with the rubber ring, they still have an absolute predetermined distance (Fig 2) measured from the bottom of the rubber ring to the top of the hex portion of the abutment. When compressed the rubber ring compresses but eventually allows full loading on the implant (Fig 5). The rubber reduces the load but does not eliminate it if the denture settles significantly.

Fig 4: Drawing of Locator attachment showing attachment seated on the top of the abutment resulting in "rock".

Fig 5: Drawing of O ring attachment showing O ring compressed against the lower portion of the attachment resulting in "rock".

Fig 6: Drawing of Toadstool abutment showing an unimpeded O ring positioned several mms. down the elongated neck resulting in NO "rock.

Fig 4

Fig 5

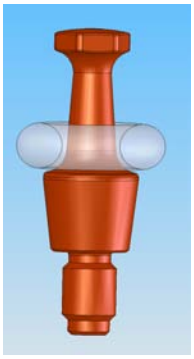

Fig 6

The new **Simpler Toadstool ™ Mini Implants** (Fig 10) and abutments (Fig 3) virtually eliminate all vertical loading. This design incorporates a rubber O ring into the denture base for resiliency as well as provides an elongated abutment neck to allow the rubber ring to move apically with the denture without loading the implant (Fig 6). **Support is always maintained by the soft tissue and not the implant.**

Much has been made recently about the Vertical Profile of an Overdenture attachment. The Locator attachment and abutment is measures 3.17 mm (0.124") from the mucosa to the top of the Locator attachment (Fig 7). The O ring abutment averages about 3.5 mm (0.140") from the mucosa to the top of the ball (Fig 8).

By redesigning the attachment portion, the **Simpler Toadstool ™** abutment (Fig 9) has the Lowest Profile for Soft Tissue Supported Overdenture abutments on the market today measuring 2.5 mm (0.097") from the mucosa to the top of the Locator attachment. This represents ½ mm greater clearance than the Locator attachment.

Fig 7: Drawing of Locator attachment showing overall height of 0.107".

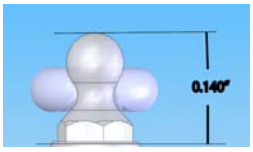

Fig 8: Drawing of O ring attachment showing overall height of 0.140".

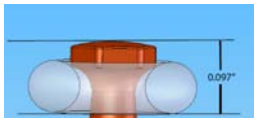

Fig 9: Drawing of Toadstool abutment showing an overall height of 0.097".

The literature is replete with articles praising the advantages of "**Platform Switching**". Recent scientific articles are showing that if:

- The diameter of the emerging cover screw, abutment, etc. is **smaller in diameter than the diameter of the implant**, and
- The top of the implant is **buried below the crest of the ridge** at time of placement,

: the **bone will grow over the top of the implant** and around the cover screw/abutment forming a bony biological seal to prevent epithelial migration down the neck of the implant/abutment. **Platform switching needs to have both the above criteria to be successful**. By extending the narrow neck down to the top of the bone engagement portion of the implant, the **Simpler Toadstool ™ Mini** implants and abutments all have a **Platform Switching** feature (Fig 6). This feature encourages bone to grow over the top of the fixture portion of the implant.

Grooves or threads 100 microns in depth and width have been shown to prevent epithelial migration down the neck of an implant system. Simpler introduced the patented **Tissue Guidance Collar ™** over twenty years ago and still incorporates the feature in many of its traditional sized implants. The feature originally was shown to prevent epithelial migration down the neck of the implant. Today, many implant companies recognize that this feature prevents bone loss around the implant and are incorporating the feature into their implant design.

It has been well documented over the past 20+ years that **HA coating** on an implant induces a quicker and stronger bone bond (osseointegration) around an implant than a non HA coating. It has also been well documented that the vertical bone loss around an HA coated implant is less than found with uncoated ones. This feature is especially important when immediately loading an implant which occurs after placing a Narrow Diameter implant. Immediate loading of any implant decreases the chances of short term and long term success. Any feature which increases the chance for success should be employed. Simpler is the only implant company that offers Narrow Diameter implants both HA coated and uncoated.

The features of Lower Profile, Platform Switching, Tissue Guidance and HA Coating cannot be found with any other Narrow Diameter implant. When combined together, the **Simpler Toadstool ™ Narrow Diameter Implant** (**Fig 10)** offers the best chance of successful short and long term osseointegration with the least amount of potential crestal bone loss.

Fig 10: Drawing of Toadstool ND Implant

The feature of **Virtual Elimination of Vertical Loading** on the implant is unique amongst all implants. The **Simpler Toadstool ™ Narrow Diameter Implant** and abutments are the culmination and combination of many proven, patented features and are simply the next generation of attachment for **Soft Tissue Supported Overdentures.**

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