Orthodontic Treatment and the Use of Bisphosphonates or Other Antiresorptive Drugs for Treating Osteopenia or Osteoporosis

Supplemental Informed Consent

Risks and Limitations of Orthodontic Treatment

The purpose of this document is to inform you of the general risks associated with orthodontic treatment of patients who are now taking, or have taken in the past, medications known as "bisphosphonates", or other antiresorptive drugs for treating osteopenia or osteoporosis. Because these drugs inhibit bone resorption, it is likely they will inhibit tooth movement during orthodontic treatment.

Bisphosphonate medications you may be taking, or have taken, include: **Fosamax®** (alendronate), **Actonel®** (risedronate), **Boniva®** (ibandronate), **Skelid®** (tiludronate), **Didronel®** (etidronate), **Aredia®** (pamidronate), or **Zometa®** (zoledronic acid). There may be other brand names in addition to those listed above. Other antiresorptive drugs you may be taking, or have taken, include: **Prolia®** or **Xgeva®** (denosumab).

These types of medications are prescribed by your physician as part of a treatment regimen to minimize bone loss throughout your body. However, for the bone surrounding the teeth, these medications may have a negative effect on normal orthodontic tooth movement. treatment. This inhibitory effect on tooth movement may lengthen your orthodontic treatment time. The effects of these medications may be severe enough to stop tooth movement, which may require cessation of your treatment (removal of braces), resulting in unfavorable tooth positions. No orthodontist can predict the effect of bisphosphonates, or other antiresorptive drugs, on an individual's orthodontic tooth movement.

Long-term use of bisphosphonates has been observed to decrease bone healing. This effect may impact surgical procedures performed within the jaws or bone surrounding the teeth and may result in compromised healing and, in some cases, no bone healing.

The risk for developing osteonecrosis is higher for cancer patients on IV bisphosphonate therapy. There is also a higher risk of osteonecrosis of the lower jaw for patients taking **Prolia®** (denosumab, an anti-RANKL agent).

I have reviewed this notice, and I understand the issues it describes. I have discussed any questions I have with my doctor. I acknowledge that I assume these risks and choose to continue with treatment.

Signature of Patient/Parent/Guardian _____ **Date** _____

Signature of Orthodontist _____ **Date** _____