



### **Titration of the EMA Appliance**

The EMA (Elastic Mandibular Advancement) adjustment mechanism consists of using various band of different sizes and elasticity. The bands range from 21-13mm, with 21 mm being the longest band providing the least mandibular protrusion to 13mm being the shortest band providing maximum mandibular protrusion. The bands also vary in elasticity. The white band is the most elastic, then the yellow, then the blue and the clear band is the most rigid. Bands of the same number are the same length, but the position is which they hold the mandible is the greatly affected based on the elasticity. This means that a blue #17 band will hold the mandible farther forward than a yellow #17 band.

Unlike the TAP appliance, The EMA must be removed from the patient's mouth in order to adjust it.

The patient should arrive at the sleep lab with their EMA appliance AND SEVERAL EXTRA STRAPS. If the patient does not bring extra straps, there will be no way to adjust the mandibular protrusion.

#### **Steps to titration of the EMA appliance:**

- 1- Familiarize yourself with the patient's appliance. Not which band is in place (example "blue #17")
- 2- Confirm that additional bands have been brought by the patient
- 3- The bands will usually be changed from longer to shorter and /or from more elastic to less elastic. For example, a patient with the blue #17 band would most likely be titrated to a yellow #15, then a blue #15, then a yellow 14 and last to a blues #14.
- 4- When titration of the appliance is needed, wake the patient to have them remove it from their mouth, but avoid turning on the lights. Step out of the room to put on the new bands and then go back in the room and have the patient replace the appliance in their mouth.
- 5- Titrate the appliance forward until respiratory disturbances are normalized or until the patient is no longer able to tolerate further protrusion.
- 6- If greater protrusion seems to be having a negative effect, move to a longer band or a more flexible band.
- 7- Not changes of bands and the final band in the PSG titration record.
- 8- In the morning, if the patient feels that the final position is to far forward, replace the band that they were using when they arrived and let them know that our office will follow up with them regarding which band they should use long term.
- 9- Hint- The blue and clear bands are easier to put on if they are warmed up for a few seconds in hot water

If there are any questions, please call Dr Brian Briesemeister at (757) 287-0757