

**Malocclusions are misalignment of the normal jaw.**

- **A Class 1 malocclusion is where one tooth is out of alignment, however there are normal jaw lengths.**
- **A Class 2 malocclusion is a longer upper jaw to lower jaw.**

Adult teeth tend to follow the same pathway as the baby teeth. Below is a brief summary of the treatment options for adult teeth (although these options may change depending on how the teeth actually look at the time of oral examination).

There are various treatment options for linguoverted adult canine teeth including: the shortening of these teeth via vital pulp therapy, the placement of an inclined plane orthodontic device, or the extraction of these teeth. Each of these procedures has different benefits and costs associated with it.

1. **RUBBER BALL THERAPY (Verhaert Technique):** Verhaert described using a rubber toy/ball to help correct lingually displaced mandibular canines in young dogs. We have seen success in some cases after active play for 15 minutes, three times per day (as the minimum). Longer and more frequent episodes are recommended. Please see the article provided describing the technique. The appropriate size, shape (round or oval), composition, as well as consistency of the toy are all important. While orthodontic movement of teeth is possible at any age, movement is easier to achieve and more rapid the younger the animal.

2. **INCLINED PLANE ORTHODONTIC DEVICE:** This is a passive orthodontic device that would be attached to the patients' hard palate. It would be shaped to act as a guide to move the lower canines slightly outward and forward, into their normal space. We usually leave the device in place for about 6 weeks, monitoring every 2 weeks. Once we are able to shift the lower canine teeth into their normal position, we would remove the device and place a retainer in patient's mouth. At this time, a professional dental cleaning would be performed. This would require your dog to have limited exposure to things to chew on. It would also require meticulous care of the device, with daily brushing.

3. **CROWN EXTENSIONS:** This is a passive orthodontic device that would be attached to the mandibular canine teeth to help move the canine into its normal groove. We usually leave the device in place for 6 weeks, monitoring it every 2 weeks. Once we are able to shift the lower canine teeth into their normal position we would remove the crown extensions in the patient's mouth. At this time a professional dental cleaning would be performed. This would require your dog to have limited exposure to things to chew on.

4. **VITAL PULP THERAPY:** This would be a method of shortening the canine teeth but in a way that would keep the teeth alive and allow them to continue to mature. This procedure would remove the sharper cusp tip and smooth the remaining edges so that further trauma to the palate would be

much less likely. We would need to monitor these teeth moving forward to ensure they continue to remain alive. If they were to get infected, root canal therapy on the affected tooth may be necessary.

5. **EXTRACTION:** Extraction of the lower canine teeth is an option. However, since most patients are young and the teeth are otherwise healthy, this should be the last option considered. Mandibular canines play a role in picking up things, contribute to the bony strength of the lower jaw, and keep the tongue and saliva in the mouth.

**References:**

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