

## **Alternative Light Wire Functional (ALF) Appliance/ Bent Wire System (BWS)**

### **Informed Consent**

**Patient Name:** \_\_\_\_\_

Orthopedic orthodontic treatment, like any medical or dental treatment, has limitations and potential risks. Some facts that must be considered before starting treatment are:

#### **1. Patient Cooperation**

Excellent results can be achieved with informed and cooperative patients. To achieve the most successful results, patients must do the following:

- A. Keep regularly scheduled appointments
- B. Practice good oral hygiene (regular brushing, flossing, etc.)
- C. Wear the ALF appliance as indicated
- D. Eat proper foods so as to not dislodge the appliance

Failure to adhere to instructions can lengthen treatment time and can adversely affect the quality of results. In extreme circumstances, it may be necessary to discontinue orthodontic treatment.

#### **2. Cavities, Swollen Gums, White Spots**

Orthopedic/Orthodontic appliances do not cause cavities or swollen gums, but because of their presence, food particles and dental plaque are retained and the potential for problems is increased. Cavities, swollen gums, and white spots (decalcification) can result from poor oral hygiene. Sugary foods and between meal snacks should be eliminated. In addition to the regular ALF/BWS adjustment visits at 4-6 weeks, we suggest that patients see their dentist at least twice a year for periodic exams and cleanings.

#### **3. Loose Appliance**

If the appliance becomes loose, the patient must report to the office as soon as possible. There is an unlikely risk of swallowing or inhaling part of the appliance.

#### **4. Loss of Tooth Vitality**

Loss of tooth vitality (nerve within the tooth dies) can occur with or without orthodontic treatment, as it is usually related to a previous injury to the tooth or may be the result of a large cavity/filling in a tooth. The tooth usually discolors and requires root canal treatment.

#### **5. Root Resorption**

Progressive shortening of the roots of certain teeth may occur in some individuals with or without orthodontic treatment. This is a negative side effect that occurs rarely with fixed appliances or braces. Root resorption can be caused by trauma, injury, excessive forces, impaction of teeth, prolonged treatment, or hormonal imbalances. Some people are more predisposed to root resorption than others for unknown reasons. Slight root resorption usually presents no problems for patients who have normal root length and healthy gums and bone.

#### **6. Unfavorable Growth**

In the case of younger patients, the treatment plan will be determined on the anticipated amount and direction of facial growth. On occasion, the facial growth does not grow as predicted, and it may be necessary to recommend a change in treatment objectives and procedures. Abnormal growth is a process and is beyond a dentist's control. Growth patterns can be adversely affected by finger, thumb, or tongue habits as well as persistent mouth breathing. Our philosophy is to treat problems early and non-surgically. Only in extreme cases will jaw surgery be necessary to correct the problem.

#### **7. Jaw Joint Problems (TMJ)**

Some patients experience jaw joint (temporomandibular joint) problems prior to, during, and after orthodontic treatment. Usually multiple factors cause this condition. Some of the signs of TMJ include headaches, neck aches, ear aches, dizziness, fainting, pain around the eyes, clicking/popping jaw, inability to open mouth wide, and in severe cases, locking of the jaw. Many people experience these symptoms independent of orthodontic treatment and some are even referred for orthodontic therapy to correct these conditions. Occasionally, a patient may experience some of the jaw joint symptoms during the movement of teeth in orthodontic treatment, but they may subside after treatment is complete. All jaw joint problems are not "bite" related, as tension appears to play a role in the frequency and severity of jaw joint pains. The emotional state of a person predisposed to this problem is also a factor, and can

fluctuate as emotional state fluctuates. During the records appointment, we attempt to determine the seriousness of the TMJ problem and then try to minimize the symptoms throughout treatment.

#### **8. Enamel Reduction/Selective Grinding**

Reshaping the teeth before, during, or after treatment may be recommended to provide room for alignment, improved function of bite, and stability.

This reduction of the outer layers of enamel seldom presents a problem with enamel integrity or causes increase in the number of cavities.

#### **9. Tooth Size Discrepancy**

If after orthodontic treatment, minor spacing occurs between the teeth because of small or abnormal tooth size, bonding (white filling material) or porcelain veneers may be suggested to fill the spaces. This improves the esthetics and stability of the case.

#### **10. Treatment Time**

The treatment time can vary with the difficulty of problems, cooperation of the patient, and individual response to orthodontic treatment. Lack of facial growth, poor cooperation, poor oral hygiene, broken appliances or missed appointments are all factors which can lengthen treatment time. The normal orthopedic/orthodontic phase one treatment time is 18-24 months. However, this can vary considerably in some cases. The phase two orthodontic leveling and aligning can vary from 6-18 months.

#### **11. Discontinuance of Treatment**

Treatment will be discontinued for lack of patient cooperation, including poor oral hygiene, broken appointments, lack of wear time of appliances, and in cases where, to continue treatment, would unfavorably influence the dental health of the patient. Prior to the discontinuance of treatment, the patient or parent will be thoroughly informed of the reasons.

#### **12. Relapse**

Relapse is described as a movement or shifting of the teeth back to the original position after the appliance has been removed. It is probable that all patients may experience at least some movement of the teeth once the appliance is removed. In the late teens or early twenties, some patients may notice slight crowding of the lower front teeth. This is particularly evident if the teeth were extremely crowded prior to treatment. Minor relapse can occur even with good cooperation throughout the active and retention phases of treatment. Late crowding of lower teeth occurs in many people with or

without orthodontic treatment. Some reasons for crowding include the eruption of wisdom teeth, the growth pattern of the jaws, or the muscle activity of the lips and tongue. Muscle activity plays an important role in the stability of the case. There must be adequate function of the muscles of the lips and cheeks outside and the tongue inside. Muscle instability can occur with patients with allergies involving swollen adenoids and tonsils. If a patient has a persistent tongue thrust habit, there is greater chance of relapse. Habits such as nail biting, thumb sucking, tongue thrusting, and mouth breathing can cause teeth to become crowded. To minimize relapse, it is important to eliminate habits as well as wear the retaining devices as directed. Patients should keep their appointments during the retention stage and wear retainers as indicated.

### **13. Treatment Goal**

Our treatment objective is to always obtain the best results possible. However, orthopedics/orthodontics is not a perfect science, and in dealing with problems of growth and development, genetics, stress, and patient cooperation, achieving optimal results is not always humanly possible. No guarantees can be given as to the finished result, as there are many factors dependent on patient cooperation and beyond the dentist's control.

### **14. Permission to use Photographs/X-Rays**

I consent to the taking of photos and X-rays before, during, and after treatment as they are a necessary part of diagnostic procedure and records keeping. I further give permission for the use of the photographs, X-rays, and records to be used for the purpose of research, education, or publication in professional journals. The patient's name and personal information will not be disclosed.

### **15. Qualifications**

Dr. Medina is a General Dentist with a General Practice Residency (GPR) post graduate certificate. Although her practice is dedicated exclusively to orthodontics, she is not an orthodontic specialist. She has taken extensive continued education programs in functional orthodontics, facial orthopedics, TMJ disorders, orofacial myology, myofunctional orthodontics, among others. She has been a member of the Academy of General Dentistry, the International Association for Orthodontics, and the International Association of Orofacial Myology. Dr. Medina is currently a fellow and certified senior instructor of the International Association of Orthodontics, and a member of the Institute of Functional Medicine. She also participates in clinical research.

**16. Understanding Information and Informed Consent**

This document explains some of the potential problems that may arise as a result of orthodontic/orthopedic treatment. It would be impossible here or anywhere else to list all of the possible problems that could arise with orthodontic treatment. We will make every effort to cooperate with you during your treatment and to keep you fully informed as to the progress of your treatment, benefits of treatment, risks of treatment, risks of non-treatment, and the proposed treatment plan.

I, \_\_\_\_\_ (Patient or Parent/Guardian) certify that this informed consent document, outlining the general considerations as well as the potential problems of orthodontic/orthopedic treatment, was presented to me and that I have read and understand its contents. I also understand that there could be potential risks or problems that could arise that are not listed in this document. I further understand that, like any other healing art, the practice of orthodontics is not an exact science and cannot be guaranteed.

I hereby acknowledge that I have been informed to my satisfaction of all the treatment considerations, including benefits of treatment, risks of treatment, risks of non-treatment, and the proposed orthodontic/orthopedic treatment plan and that I now consent to treatment.

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**Patient or Parent/Guardian Signature**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Dr. Judith Medina-Rivera, DMD**

\_\_\_\_\_  
**Date**