

# SKELETAL ANCHORAGE APPLICATION

## INFORMED (CONSENT) CONSENT DOCUMENT

### GENERAL INFORMATION ABOUT ORTHODONTIC TREATMENTS

A successful orthodontic treatment is only possible if the patient/caregiver is informed about the treatment. However, every orthodontic treatment has its limits and possible risks. Please read the following information. You are free to accept or refuse orthodontic treatment based on this information. If there is anything you do not understand or have any questions, please ask your doctor.

- Orthodontic treatment is a long-term treatment that requires discipline. Patient-physician-family cooperation is necessary for a good result.
- X-rays of the teeth and head should be taken for diagnostic purposes at the beginning of treatment, during treatment and after treatment - for control purposes - in order to examine the teeth and surrounding tissues in detail. It is also necessary to take photographs from inside and outside the mouth before and during treatment in order to monitor the treatment process more clearly. In the diagnosis and treatment of some orthodontic anomalies, advanced tests are inevitable.
- These records may be used in scientific publications and in-patient presentations without identifying and/or revealing your identity. Apart from these purposes, these records will not be used and will not be shared with others except as requested by legal authorities.
- The patient must follow the treatment prescribed by the physician to the end and completely. In case of non-compliance due to lack of cooperation of the patient/family and if this is persistent, the physician has the right to terminate the treatment when he/she decides that the patient will not benefit from the treatment.
- The individual response of the patient's tissues to the treatment is an important factor in the outcome of orthodontic treatment. Especially in "skeletal anomalies" involving the bone, the targeted structuring may not be realized if the necessary growth support cannot be obtained in individuals of developmental age. In this case, the physician may terminate the treatment in order not to harm the individual.
- The presence of any systemic disease related to the general health status of the patient (blood diseases, bone diseases, hormonal disorders, allergic diseases, etc.) may affect orthodontic treatment. The patient is required to inform the orthodontic physician of these and similar diseases before starting orthodontic treatment and of any changes in the patient's health status/treatment-related changes during treatment.
- In order to correct the defects in your teeth, jaw and facial structures within biological limits, you should come to control appointments at intervals determined by your doctor according to the type of treatment applied.
- Orthodontic treatment is not just the alignment of teeth for aesthetic purposes. The main goal is to achieve a good chewing function as well as a healthy mouth, teeth and jaw structure that looks good.
- Orthodontic treatment is applied to healthy teeth. Before starting the treatment, all teeth should be examined by a dentist, decayed teeth should be treated, if any, canal treatment should be performed on the necessary teeth, and tooth brushing training should be given. Treatment of patients who do not brush their teeth sufficiently is not started. Orthodontic treatment is started after the patient's oral care is improved and the necessary treatments are performed.
- Orthodontic treatment consists of two successive stages: active treatment and reinforcement treatment. With active treatment, defects in the teeth and jaws are corrected. Reinforcement treatment ensures that the improvement is permanent. The treatment fees you are told cover both stages. The duration of these stages may vary according to the severity of the disorder in each person.
- Even if the treatment is planned and carried out in accordance with all the rules, it cannot be guaranteed to achieve all the results. Because, the limits of the selected treatment, failures in patient-physician-family cooperation and some patient-specific factors (for example: genetic structure, growth-development factors that cannot be predicted during treatment, the response of oral and dental tissues to orthodontic treatment, bad habits such as teeth clenching, teeth grinding, etc.) make it impossible to guarantee the results.

Following the end of orthodontic treatment, the bite of the teeth can be negatively affected in various situations in the following periods. Examples of these situations include genetic influences that determine the size of the teeth, jaws and tongue, growth or developmental changes, mouth breathing, tongue thrust, continuation of oral habits such as finger sucking, inappropriate extraction pressure of wisdom teeth. These are conditions that may develop beyond the control of the orthodontist and may require additional treatments.

### GENERAL INFORMATION ABOUT SKELETAL ANCHORING SYSTEMS

Anchorage control in orthodontic treatment has an important role in achieving the targeted result.

With anchorage from the skeletal system, the desired anchorage can be obtained without being dependent on patient cooperation. With the development of biocompatible materials, the development of devices that will help to obtain support from skeletal tissues has also accelerated. Various factors should be considered in the selection of the areas where the device will be applied for skeletal anchorage. Factors such as the biomechanical effects of the mechanics to be used, skeletal age, the region where the mechanics will act, bone quantity and quality, and obstacles arising from anatomical structures play a role in determining the placement sites of the device specific to the case. Regions used for skeletal anchorage in the mouth: Retromolar region, palatal region, alveolar region, infrazigomatic crest region.

#### Skeletal Anchorage Devices

Dental Implants: Dental implants are not preferred today because of the length of time expected for osteointegration, their large size, and the difficulties that may be experienced in their removal from the mouth.

Onplants Onplants, which are generally placed in the palatal region, have also been used for skeletal anchorage. Their use is limited due to their limitations and problems in their removal.

Mini screws: Due to their small size, ability to be placed with simple surgical procedures, low postoperative pain and ease of hygiene, they are frequently used for skeletal anchorage. Implant placement should not restrict the desired tooth movement.

Mini-plates Recently, with the development of biocompatible medical materials, titanium mini-plates and bone screws have been used for rigid fixation after orthognathic surgeries. Such applications have led to the idea that mini-plates may be suitable as anchorage for tooth movement.

#### Application of Skeletal Anchorage Devices

Mini-Plate Application: Under local anesthesia, a full-thickness mucoperiosteal flap is lifted by making a horizontal incision so that the anterior and posterior border of the zygomatic process is seen in the upper jaw. The 3-hole titanium zygomatic anchorage plate is bent in accordance with the curvature of the arch. For the titanium screws fixing the plate, slots are drilled into the bone with the help of a direct driller. A 7 mm long screw is applied to the middle hole and a 9 mm long screw is applied to the upper hole. The flap is brought into place and closed primarily with 3/0 silk suture.

Mini Screw Application: After local anesthesia, the entry point of the screw is marked by drilling the cortical bone with a pointed probe 2 mm below/above the adherent gingival margin. The long axis of the miniscrew is inserted at a 90° angle with the bone. After advancing 2 mm into the cortical bone, the long axis of the screw is angled so that it is parallel to the long axis of the teeth. The 8 mm threaded part of the screw is applied in the bone, while the 4 mm neck and head of the screw remain in the oral cavity.

#### General Side Effects/Complications

Pain may persist for a while after the procedure. It will usually pass after a few hours. Bleeding or prolonged redness in the area, especially in those with bleeding problems, may be seen, although rarely. Those with allergies or sensitivity to anesthetics and disinfectants may experience swelling, itching, skin sensitivity and dizziness. Serious complications affecting vital functions (blood circulation, respiration, kidneys) and permanent damage such as organ failure and paralysis are very rare.

#### Special Side Effects/Complications:

Root damage due to the proximity of the screws to the roots

Soft tissue damage during application

Fracture, loosening and early loss of mini-screw

Inflammation of hard and soft tissues surrounding the mini-screw/plug Personal risks

#### Post-Application Instructions:

Avoid smoking, alcohol and exercise for 24 hours after the procedure Do not eat while the mini-screw/beach area is under anesthesia

Clean the mini-screw/plate area very well according to your doctor's instructions, disinfectant mouthwash can be used in the first days following the procedure. Regular follow-up appointments are essential for aftercare.

Contact your doctor if the following conditions are observed

Continuous bleeding, severe swelling, throbbing pain

Problems to be encountered in the absence of application:

In cases of open bite where the front teeth are not closed, when the mini-plates used for support to embed the back teeth into the upper jawbone are not applied, the existing open bite will be tried to be solved with alternative methods that take longer and both time will be lost and the problem will remain unsolved.



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DOCUMENT**

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In cases of deep bite where the appearance of the gums is excessive or the upper anterior teeth cover the lower anterior teeth too much, longer treatment times and unsatisfactory success rates will be encountered if mini-screws that can be applied to the anterior region of the upper jaw are not applied.  
In fixed orthodontic treatments with tooth extraction, when the mini-screws used as a support during the removal of the canines backwards are not applied, the posterior teeth will move forward in the form of treatment that is desired to prevent the posterior teeth from coming forward, and the gap provided by the extraction will be slightly closed and the necessary benefit from the gap will not be obtained.  
If mini-screws, which can be applied for support in the posterior or anterior region in cases where the teeth in the jaws need to be removed backwards or forwards, are not applied, these advantages will be deprived of these advantages and treatment times will be prolonged, as they provide both visual and ease of use compared to the methods used for the same target, extraoral appliances.

ORTHODONTIC TREATMENT	HISTORY :
	FULL NAME :
	DATE OF BIRTH :
	GENDER :

**ORTHODONTIC DIAGNOSIS**

As a result of our clinical and radiological evaluations .....The orthodontic problems we detected in our patients are listed below.

**RECOMMENDED TREATMENT**

In order to eliminate these orthodontic problems, the following procedures should be performed.

**TREATMENT PROCESS**

Our patient..... The duration of active orthodontic treatment depends on the patient, as described in detail above.

Although it varies from patient to patient, it is estimated to be.....approximate.

These periods are valid in cases where the above-mentioned undesirable situations do not occur and the doctor-patient harmony is realized in the ideal way mentioned above. Some adverse events may occur during orthodontic treatment:

- a) Orthodontic force applied to the teeth can cause painful tooth sensitivity for a week.
- b) The metal or acrylic retainers in the appliances may cause temporary difficulty in eating, speaking and swallowing.
- c) Sores may appear on the lips, cheeks and tongue.
- d) Oral care may become difficult.
- e) Resorption of root tips may occur.
- f) Damage to the dental nerve may require root canal treatment.
- g) If the supporting bone tissue around the tooth is too thin, gingival recession may occur due to bone loss.

Teeth that are not adequately brushed during treatment can develop decay, permanent white spots and gingival inflammation. Gingival inflammation leads to red discoloration, bleeding and gingival enlargement over time. For this reason, teeth should be brushed regularly after main and intermediate meals until you are sure that all food residues are removed.

In order not to damage and break your appliances, you must follow the list of prohibitions given by your physician until the end of the treatment.

**Special Cases** You can reach Süleyman Demirel University Faculty of Dentistry doctors by phone at 0246 211 3353 or by visiting them.

**PATIENT'S DECLARATION**

I/ My son/daughter whose parent/guardian/guardian I am ..... (for), Dr .....recommended in the clinic

I have been informed about the existing problems in the mouth and teeth related to orthodontic treatment, why treatment is needed, changes that may occur during and after orthodontic treatment and possible problems that may be encountered, and I have read them on the form.

I was given enough time and opportunity to ask questions after reading the form about everything I wanted to know and learn about the procedures and orthodontic treatment, and I received satisfactory answers. I accept that the procedures and orthodontic treatment are carried out to improve my oral and dental health and appearance, but that there is a different "best result" for each patient. I was told about the possible developments and risks if I did not want to be treated or if I stopped the treatment after starting treatment.

I fully understand the orthodontic diagnosis explained to me, the type of orthodontic treatment recommended, the treatment fee for this treatment and the possible risks of orthodontic treatment. I have read all pages of this form and fully understand the issues that I should pay attention to. I accept that the treatment to be applied will be delayed and unsuccessful if I do not follow the rules I have read and explained to me. In case the treatment fails, I will not claim material and moral compensation from my treating doctors, and I accept that my doctor will not have any criminal liability.

During the dentist's diagnosis and treatment;

Consultation may be requested from other physicians and they may participate in the treatment process, My anamnesis information and radiological images, photographs, examination results (pathology report, laboratory results, etc.) may be used for diagnostic, scientific, educational or research purposes by keeping my identity information confidential,

It was explained to me that local anesthesia may be applied as part of these procedures during the diagnostic method, intervention or treatment, and that attending the appointments without interruption and following the recommendations and practices of the physician regarding the treatment may directly affect the treatment results.

I have read this consent form and have been informed about the above treatment options and their possible risks.

Our signatures below confirm that we have read and understood all the information contained on these pages and all blanks on these pages have been filled in before our signatures.

Dear Patient, You have the right to be informed about your health condition and the benefits/harms, risks and alternatives of the proposed diagnostic or therapeutic procedures; to accept or partially/completely reject the treatment; and to stop the procedures at any stage! This document, which we want you to read and understand, has been prepared not to scare you or to keep you away from medical practices, but to inform you, to determine whether you consent to these practices and to obtain your consent. This consent form consists of 2 pages and has been prepared in 2 copies in accordance with Article 70 of the Law No. 1219 and Article 26 of the Turkish Penal Code No. 5237, one copy of which to the patient/patient's legal representative.

**THE TREATMENT OF MY DISEASE HAS BEEN EXPLAINED TO ME AND I HAVE READ AND UNDERSTOOD THIS FORM. I ACCEPT THE TREATMENT**

(Note: This statement will be written below in the patient's/relative's **OWN HANDWRITING**).

PATIENT/RELATIVE/GUARDIAN

FULL NAME :.....

DATE:.....

CLOCK:.....

SIGNATURE

THE PHYSICIAN PROVIDING THE INFORMATION

FULL NAME.....

DATE:.....

CLOCK:.....

SIGNATURE/SIGNATURE