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#### THE ROLE OF ALIGNERS IN MODERN ORTHODONTICS

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#### ABOUT ARTICLE

**Key words:** Orthodontic treatment, braces, periodontitis.

**Received:** 19.02.2024 **Accepted:** 24.02.2024 **Published:** 29.02.2024 Abstract: It is worth noting that Elinor is a promising direction in orthodontics. Modern orthodontics has developed a convenient way to correct malocclusion using the Elinor device, which is completely invisible when worn on the teeth and does not cause any discomfort to the patient. This facilitates cooperation with the patient and reduces the fear of orthodontic treatment, the need for which is growing every year. This article discusses the possibility of using removable transparent capeliners as an alternative to non-removable bracket systems.

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#### **INTRODUCTION**

The purpose of this work is: to study the usability of aligners.

Research methods: in preparing this article, a review and analysis of domestic and international literature was conducted. The tasks are to study the characteristics of the eliners. - To study the stages of treatment. - Analyze the convenience of using removable transparent Eliners cups as an alternative to non-removable braces. Special plastics are used in the manufacture of Elinor. In the process of applying the design, the user's teeth are tactile, but constantly affected. Gradually, the teeth move in the right direction along a fixed trajectory. To make a device, a specialist takes precise casts. The surface of the finished product is perfectly smooth. Therefore, the patient can decide for himself what to eat without fear of damaging the structure. Elinor is ideal for people whose job involves a lot of communication with clients. It allows you to work unnoticeably without attracting too much attention [2]. Another point is more psychological than medical. It is difficult for people in adulthood to adapt to anything. In this sense, orthodontics is the least suitable. In addition to discomfort, they also cause

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aesthetic discomfort. The Greeks are not visible to others, so they do not cause complexes. Today, the orthodontic services market is very diversified. Patients who decide to fight tooth curvature can do it successfully. The Invisalign system is perhaps the first in this field. The first mouth guard was invented by an American specialist in 1998. Since then, innovations have been constantly improved and achieved impressive results: in 1989, Dr. Hinz from Germany received a license in the United States for the production of so-called elastic dental devices and the use of a newly developed silicone elastomer. Highly elastic silicone rubber is able to move teeth up to a distance of 4 mm, opening up a completely new field of application [3]. Every year, millions of children and adults begin orthodontic treatment. According to statistics, more than 80% of people over the age of 15 have some kind of malocclusion [1]. The decisive factor in undergoing orthodontic treatment is the improvement of appearance. However, it should be noted that excessive demands for aesthetic improvement go hand in hand with the patient's desire to preserve as many of his teeth as possible. An alternative to orthodontic braces is the use of cap-ersatz systems for straightening teeth [2]. When using orthodontic braces, the patient must carefully and consciously observe individual hygiene with additional preventive measures. It is important that patients, especially children and adolescents, have the opportunity to use orthodontic devices that do not significantly affect their hygiene level, as they often do not follow the recommendations of their doctors. Orthodontic treatment using the Ellinor device includes the following stages [4]:

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- 1. clinical and additional diagnostic methods for diagnosis and treatment planning;
- 2. taking casts, creating working plaster models or creating virtual casts for printing models on a 3D printer;
- 3. obtaining virtual full-scale models;
- 4. using a 3D printer to print models;
- 5. Using a 3D printer to print models;
- 6. Using a 3D printer to print models;
- 7. Using a 3D printer to print models,

Clinical stages of patient management Based on this, it is possible to highlight the advantages of Elinor over other orthodontic systems [4, 5, 6, 7]:

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1. Elinor is more aesthetic than conventional vestibular braces, More aesthetic and more comfortable for the patient:

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- 2. Elinor does not significantly affect the level of oral hygiene and does not interfere with personal hygiene;
- 3. The doctor can show the patient all the stages of planning orthodontic treatment and its results;
- 4. During treatment with Elinor, the patient does not change the patient can use the Elinor system in a more natural way and is not forced to limit the intake of various foods;
- 5. The patient can use the Elinor system in a more natural way and is not forced to limit the intake of various foods.
- 6. The Elinor system is safe, as it is made of medical plastic, inert to living organisms, and is the method of choice for orthodontic treatment for patients with allergies, especially for patients with nickel allergy, which is becoming more common.

This is the method of choice for patients with a history of allergies, especially for patients with nickel allergy, which is becoming more common. The safety of this orthodontic method in patients with nickel allergy has been confirmed in various works by international authors, and in some cases it is the only possible method.

#### **CONCLUSION**

As a result, it should be noted that Elinor is a transparent mouth guard that follows the contours of the teeth and promotes gradual movement to the correct position. A mouthpiece with an internal non-removable activator exerts pressure on the teeth and allows them to gradually move in accordance with the prescribed treatment plan. Elinor is also used for mild plexus. Elinor is invisible to others (it is made of thin transparent bioplastics). The main advantages: - High accuracy of treatment prognosis due to the use of computerized technology. -They can be removed while eating and brushing teeth, do not affect pronunciation and do not cause discomfort to the patient. For these reasons, Elinor is a worthy alternative to orthodontic treatment.

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