

## Malocclusion and Hair Loss: An Intimate Relationship

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### ABSTRACT

A malocclusion is a incorrect relation between the teeth of the two dental arches when they approach each other as the jaws close. There are different categories of malocclusion:

Class 1 malocclusion is the most common. The bite is normal, but the upper teeth slightly overlap the lower teeth.

Class 2 malocclusion, called retrognathism or overbite, occurs when the upper jaw and teeth severely overlap the bottom jaw and teeth.

Class 3 malocclusion, called prognathism or underbite, occurs when the lower jaw protrudes or juts forward, causing the lower jaw and teeth to overlap the upper jaw and teeth.

Hair loss (alopecia) can affect just your scalp or your entire body, and it can be temporary or permanent. It can be the result of heredity, hormonal changes, medical conditions or a normal part of aging. Anyone can lose hair on their head, but it's more common in men.

Baldness typically refers to excessive hair loss from your scalp. Hereditary hair loss with age is the most common cause of baldness. Some people prefer to let their hair loss run its course untreated and unhidden. Others may cover it up with hairstyles, makeup, hats or scarves. And still others choose one of the treatments available to prevent further hair loss or restore growth.

In the dental industry, it seem no one has entertained the thought that if a dislocated mandible, in a Class II Skeletal relation could occlude or block the blood flow in in the STA.

Class 2 malocclusion is diagnosed when a severe overbite is present. This condition, known as retrognathism (or retrognathia), means that the upper teeth and jaw significantly overlap the lower jaw and teeth.

Therefore stopping or impeding blood flow to the vertex of the head and therefor causing balding. Taking into consideration that in a healthy Class I Skeletal relation the clearance between the base of the skull and the eminence of the condyle is only 3.5mm. Orthodontic experience tells us that mandibles 3.5mm retrognathic and more are very common. The intent of this paper is to expose the facts and evidence that show the Class II Skeletal mandible is the cause of balding by blocking blood flow through the S.T.A. Balding of vertex can be avoided. A large array of research has been, and continues to be conducted to determine the causative agent for hair loss. Traditionally such investigation has focused on a number of varying topics, including but not limited to chromosome composition, genotype, and subsequent phenotype expression. However, little or no investigation has been conducted to deduce what effect the skeletal relationship has upon the initial development of hair loss. Through a series of observational case studies, it is evident that there is a relationship between malocclusion and hair loss. Specifically, through analysis of dental records, cephalometric radiographs, and visual observation of patients, there appears to be a correlation between Class II Skeletal malocclusion and subsequent hair loss. Further investigation yields that vascular anatomical differences between different skeletal schemes is associated with the development of hair loss.

In order to evaluate the connection between the bald patient, and their corresponding occlusion, a retrospective analysis was conducted. Specifically, the occlusion of men suffering from hair loss was evaluated through visual observation, dental

models, as well skeletal cephalometric radiographs. In order to limit confounding factors, only those individuals with no prior experience of orthodontic treatment were selected. Additionally, a minimum age of thirty years was selected for inclusion in this retrospective analysis. A total of one hundred individuals suffering from hair loss were selected for inclusion, and served as the experimental group.

With respect to the control group, only those individuals with no prior experience of orthodontic treatment, with a minimum age of thirty years, and with Class III Skeletal jaw relation were selected for inclusion. A total of fifty individuals with no hair loss were selected for inclusion, and served as the control group

Of the one hundred individuals suffering from hair loss, direct visual, and observation of dental model occlusion demonstrated that ninety-six individuals had Class II dental malocclusion. However, a more thorough evaluation of the one hundred individuals, those with or without Class II dental malocclusion, through analysis of their skeletal cephalometric radiographs, reveals that all one hundred subjects selected for inclusion present with Class II skeletal malocclusion.

As Dentistry shifts towards a more conservative approach, focusing on prevention prior to intervention, a similar approach should be utilized to prevent hair loss. Namely, with knowledge of the association between Class II skeletal relationship and hair loss, greater precedence should be given to correct the skeletal relationship, and malocclusion

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