

Thesis Title    Soft Tissue Profile Changes Following  
Surgical Reduction of Mandibular  
Prognathism in Thais

Name            Pimonlada Pataranithipaiboon

Degree          Master of Science (orthodontics)

Thesis supervisory committee

Passiri Nisalak, B.Sc., D.D.S., Cert. in  
Orthodontics, M.S.

Aarasa Waikakul, B.Sc., D.D.S., M.Sc.,  
Cert. in Oral and  
Maxillo-Facial Surgery

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#### ABSTRACT

The objectives of this study were to determine the amount and direction of the various soft and hard tissue landmark changes with the mandibular surgical setback, to identify the relationships between soft and hard tissue changes and to reveal if the additional factors have an effect on the soft tissue response (the addition factors : sexual difference, an amount of surgical correction, difference in SN-MP, change in

anterior face height). Lateral cephalograms of twenty-one Thai adult patients (10 male, 11 female) aged 19 to 35 were analyzed for soft tissue profile changes subsequent to surgical orthodontic treatment. Pretreatment, presurgical and posttreatment lateral cephalograms were measured relative to nasion-pogonion line. Changes in the hard and soft tissue were measured onto two groups of study. The pretreatment group is the changes between pretreatment and posttreatment cephalograms, whereas presurgical group is the changes between presurgery and posttreatment cephalograms. This study revealed that most of the changes occurred at posterior displacement of the lower lip, inferior labial sulcus and chin and the underlying hard tissue landmarks. Both at the lower lip and chin there was a slight increase in thickness, which tended to deepen the sulcus. The upper lip was lengthen with slight posterior displacement. Correlation coefficient, linear regression equations, stepwise multiple regressions were calculated. The ratios were recommend to predict the soft tissue response to the mandibular set back surgery. Additional factors seem to have some effects on the soft tissue response only in the pretreatment group.