

# Maxillary Midline Diastema in Nigerians: Beauty or Malocclusion

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## Abstract

**Background:** The aim of this study was to determine the perception of maxillary midline diastema in adults in Benin City, Nigeria.

**Methods:** The study group comprised 203 civil servants (104 males and 99 females) between the ages of 19 to 65 years who were randomly selected from various government ministries. The perception of maxillary midline diastema was determined from the response to a fixed choice questionnaire and a 100-point visual analogue scale to rate responses to an altered smile with widths of maxillary midline diastema ranging from 1mm to 8mm. The social classification of the participants was according to the Registrar General's Social Class.

**Results:** There was a significant difference, ( $P < 0.05$ ), between the 5 social classes and perception of maxillary midline diastema. Maxillary midline diastema was perceived most as a sign of beauty in social class III in 69 (45.1%). There was also a significant difference ( $P < 0.001$ ) in the perception of width of midline diastemas a sign of beauty from all the social classes. Diastema widths between 1- 6mm were regarded as a sign of beauty in 96%. Larger diastemas between 7- 8mm were rated as unattractive (malocclusion) in 79%. A small number (13.3%) believed that diastemas should be created artificially, while 35.5% believed that diastemas greater than 6mm should be closed. There was no significant association between age, ethnicity and gender in the perception of maxillary midline diastema.

**Conclusion:** Maxillary midline diastemata large as 6mm were regarded as a sign of beauty and social class affects the perception of maxillary midline diastema.

**Keywords:** Midline diastema, Beauty, Malocclusion, Maxillary arch

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## Introduction

A diastema is a space between adjacent teeth in either the upper arch or maxilla<sup>1,2</sup> or the lower arch or mandible. It is relatively common in the midline of the upper arch among children in the mixed dentition stage and disappears or decreases in width as the permanent canines erupt<sup>2,3</sup>. However, when the maxillary midline diastema persists into adulthood, it is regarded by some as a major aesthetic concern<sup>2,4</sup> but its perception as a sign of beauty varies among persons, racial groups and socioeconomic class<sup>2,4,7</sup>. Maxillary midline diastemas that are present in adults may vary in size and if greater

than 2mm are regarded as 'unattractive' and a form of malocclusion by Orthodontists<sup>7-11</sup>. Many of such diastemas are closed using various methods ranging from Orthodontics to restorative procedures depending on the size of the diastema<sup>5,8</sup>. Most studies regard a maxillary midline diastema greater than 2mm as an aesthetic concern or a form of malocclusion with many studies emphasizing the need to close the diastema using various options<sup>2,6,8</sup>. In Nigeria, maxillary midline diastemata are termed "open teeth" and often regarded as a sign of beauty with some individuals creating artificial diastemata as wide as 6mm<sup>6</sup>. There however appear to be few studies in relation to the closure of diastemata<sup>7,12</sup>. However, in our environment, some patients decline to close this maxillary midline diastema regarding it as a sign of beauty<sup>12</sup>. The most important aspect of managing any case is appropriate diagnosis and the psychosocial need of the patient<sup>9,13</sup>. It is therefore important to determine if the maxillary midline diastema is perceived as a sign of beauty or a malocclusion in Nigerian adults. There however appear to be few studies on the perception of maxillary midline diastema in our environment and the knowledge of the perception of maxillary midline diastema would assist the orthodontist to make the right decision when

