The purpose of the present investigation was to determine the relationship between oral parafunctions and the development of temporomandibular disorders (TMD). A group of 1,976 children aged 3-15 years old, were randomly selected and underwent an examination that consisted of palpation and assessment of the temporomandibular joints and associated muscles for tenderness and joint sounds. Maximum vertical opening and deviation during jaw opening were also recorded. The parents were requested to complete a questionnaire contained questions regarding symptoms of TMD and history of oral parafunctions. Results showed significant correlations between cheek biting, nail biting, bruxism, thumb sucking and most of TMD signs and symptoms. The results of the study support the concept that oral parafunctions have a significant role in the aetiology of TMD and should be tackled by the paediatric dentists to minimise their effects on the stomatological system.