

Tooth eruption clock: A novel learning aid

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Abstract

Chronology of tooth eruption is the most preliminary and crucial topic which is covered in the undergraduate syllabus of the dental curriculum. Eruption of permanent and primary teeth follows a particular time sequence. Both maxillary and mandibular arch has similar number of teeth, beginning from central incisors to molars. The pattern of eruption differs slightly between maxillary and mandibular arch. Remembering the years or months in a numerical manner is the usual way by which a student learns the eruption chronology. Eruption clock is a specially designed learning aid, which makes this teaching–learning process a lot easier, effective and practical.

Keywords: Chronology, eruption clock, eruption sequence, eruption time, permanent teeth

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INTRODUCTION

Chronology of eruption is the sequence by which the tooth erupts into the oral cavity. Eruption sequence for teeth is often studied by the dental formulae and tables representing the eruption period.^[1,2] This traditional method of learning is being followed in the curriculum for years and no simplified version has evolved till now to break the barrier set in the minds of students. However, there are few studies in the literature, which mention about the variation in eruption chronology among different population, but there seems to be a lacunae in application of this knowledge practically.^[3-6] Moreover, queries related to eruption period of teeth has now become a curious issue among parents who visits the dentist regarding their child's oral health status. Questions like 'When does the first tooth erupt?' and "Which tooth is permanent?" are commonly encountered in a clinical setup.^[7] Dentists are

in a position to address these queries raised by the parents and to make them understand the sequence of eruption in a way, which they can easily accept and implement. To overcome these hurdles, an uncomplicated and an efficacious tool is required, which benefits the academic, clinical and common audience.

Tooth Eruption Clock is especially designed for effective learning of chronology of permanent teeth eruption in a visual, easier, effective and a convenient way. The conventional method of learning of chronology of permanent teeth eruption is by simply memorizing the years or months in numbers, as given in the textbooks. The often-followed method of teaching chronology of tooth eruption is by preparing a table or chart with figures and names of all teeth along with their corresponding eruption period. This existing method makes the learning a cumbersome process, creating resentment and

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reluctance toward the subject. The monotonous method of memorizing the numbers with the help of tables and charts is not retained in the minds of students for a long time. Therefore, an attempt is made to develop a novel tool for effective learning of chronology of permanent teeth eruption in a simplified and practical way that will be retained in the minds of the students.

DESCRIPTION

The tooth eruption clock comprises an analog type wall clock with hands to indicate hour and minute. It comprises numbering from 6 to 17 with the numbers positioned exactly in the same place of 1–12 of a normal clock and adapted to represent the year of eruption of permanent teeth. The images of permanent tooth along with its name are positioned between the numbers corresponding to eruption period of the permanent tooth. For example, maxillary central incisor erupts at the age of 7–8 years, and the respective image is included in between the numbers 7 and 8 in the eruption clock. The name of each tooth is mentioned adjacent to every tooth image (e.g., CI – central incisor, PM – Premolar). Both the maxillary and mandibular teeth are differentiated with a bar line in which maxillary teeth is positioned above the bar line and mandibular teeth is positioned below the bar line. A combination of both maxillary and mandibular teeth are represented in a few places on the clock, based on their chronology of eruption [Figure 1].

SIGNIFICANCE AND MERITS

This learning aid carries the novelty of portraying the images of the tooth in a uniquely designed clock, which represents the numbers located in the same position as it is in the normal clock. Tooth eruption clock will be an effectual and potential learning tool for the students to overcome the traditional learning method of memorizing the eruption period. It simplifies the conventional method of learning the eruption sequence to a visual method, by looking at the specially designed tool, time and again. It serves both the faculties and students in mutual learning and understanding of the subject, thereby resulting in higher knowledge retention. Moreover, this tool can even be beneficial for parents who consults the dentist regarding their child's tooth eruption status. This particular type of eruption clock can be showcased in lecture halls, tooth morphology laboratories, dental museum, dental

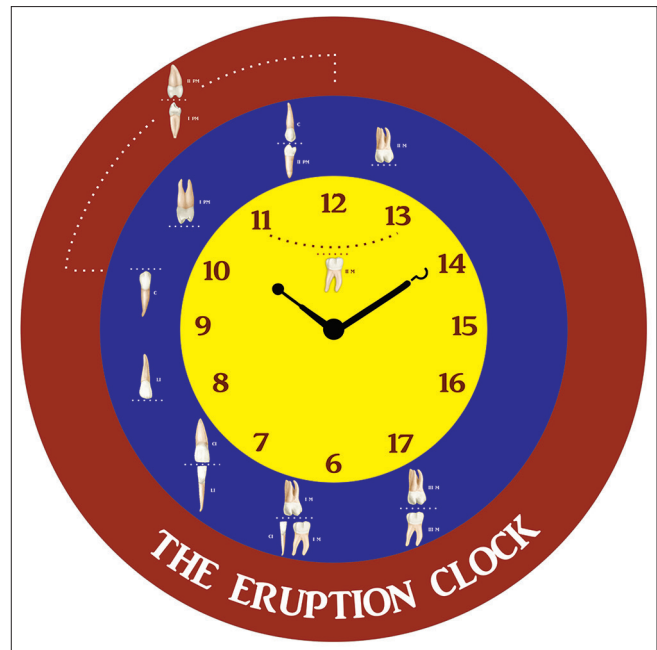


Figure 1: Tooth eruption clock representing chronology of eruption

clinics, paediatric departments and even at homes, thereby promoting oral health education not only to the students undergoing graduation but also to the public.

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Conflicts of interest

There are no conflicts of interest.

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