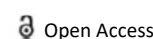




OPINION ARTICLE



Morphology of Primary Teeth and Permanent Teeth

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Description

In order to mechanically prepare food for swallowing and digestion, human teeth chop and smash food into smaller pieces. The four different tooth kinds that humans have—incisors, canines, premolars, and molars—each serve a particular purpose. Food is sliced by the incisors, torn by the canines, and crushed by the molars and premolars. The gums cover the tooth roots, which are located in the mandible or maxilla (lower jaw). Multiple tissues with differing densities and hardness make up teeth. The majority of mammals, including humans, are diphyodont, which means that they grow two sets of teeth. The initial set of teeth, known as deciduous teeth or “primary teeth,” “baby teeth,” or “milk teeth,” often has 20 teeth in total. Around six months of age, the first primary teeth usually begin to erupt, which can be unpleasant or distracting for the baby. However, some infants are born with one or more neonatal teeth, also referred to as “natal teeth,” which are easily apparent.

Anatomy

The study of tooth structure is the focus of the anatomical discipline known as dental anatomy. Dental occlusion, or the contact between teeth, is not included in its field of study, but rather the development, appearance, and classification of teeth are. Because it deals with naming teeth and their structures, dental anatomy is also a taxonomic science. Dentists can use this knowledge practically by using it to quickly recognise and characterise teeth and other features while providing care.

The region of a tooth that is covered in enamel above the Cementoenamel Junction (CEJ), sometimes known as the “neck,” is known as the anatomic crown. Dentin (or “dentine” in British English) makes up the majority of the crown, which also contains a pulp chamber. Before eruption, the crown is inside the bone. It is almost

usually apparent after eruption. The anatomic root is coated in cementum and is located below the CEJ. Dentin makes up the majority of the root, which typically has pulp canals, just like the crown. Except for the maxillary first premolars, canines and the majority of premolars typically have just one root. Both mandibular molars and maxillary first premolars typically have two roots. The majority of maxillary molars have three roots. Supernumerary roots are additional roots that are not required. Humans typically have 32 permanent (adult) teeth and 20 primaries (deciduous, “baby,” or “milk” teeth). Incisors, canines, premolars (sometimes known as bicuspid), and molars are the different types of teeth. Canines are utilised for tearing, incisors are largely used for cutting, and molars are used for grinding.

Primary teeth

There are total of 20 deciduous (primary) teeth, with ten in the mandible (lower jaw) and ten in the maxilla (upper jaw). Human primary teeth have the dental formula 2.1.0.2.2.1.0.2. There are two types of incisors—centrals and laterals—and two types of molars—first and second—in the primary set of teeth. In most cases, permanent teeth eventually replace all primary teeth.

Permanent teeth

There are 32 permanent teeth in total, with 16 in the maxilla and 16 in the mandible. Dental calculations are 2.1.2.3.2.1.2.3. The permanent human teeth have a boustrophedonic numbering system. There are maxillary central incisors (teeth 8 and 9), maxillary lateral incisors (teeth 7 and 10), maxillary canines (teeth 6 and 11), maxillary first premolars (teeth 5 and 12), maxillary second premolars (teeth 4 and 13), maxillary first molars (teeth 3 and 14), and maxillary second molar (1 and 16). The mandibular teeth consist of the mandibular central incisors (24 and 25), mandibular lateral incisors (23 and 26), mandibular canines (22 and 27), mandibular first

and second premolars (21 and 28), mandibular first and second molars (20 and 29), and mandibular third molars (18 and 31) (17 and 32). Third molars, sometimes known as “wisdom teeth,” typically erupt between the ages of 17 and 25. These molars may never form or even erupt into the mouth. When they do form, they frequently need to be eliminated. Supernumerary teeth are any extra teeth that emerge, such as fourth and fifth molars, which are uncommon (hyperdontia). The term “hypodontia” refers to the development of fewer teeth than normal.

There are small variances between male and female teeth, with male teeth and the jaw often being larger than female teeth and jaw. Additionally, there are variances in the proportions of the interior dental tissue, with male teeth having proportionately more dentine and female teeth having proportionately more enamel.