

Anatomy, Physiology and Non-dental Disorders of the Mouth of Pet Rabbits



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KEYWORDS

• Rabbit • Mouth • Tooth • Oral disorders • Mastication • Neoplasia

KEY POINTS

- The stomatognathic system of rabbits consists of the mouth, teeth, jaws, pharynx, and associated structures, such as the salivary glands, that are involved with eating.
- Numerous research articles are published about different anatomic structures in the rabbit's stomatognathic system, and also on the physiology of leporine mastication; however, no reviews exist that summarize this research for veterinary clinicians.
- In rabbits, the continuous growth of their long-crowned teeth and the steady process of tooth wear results in a dynamic state that leads to complex patterns of acquired dental disease.
- The 2 major theories for the cause of acquired dental disease are inadequate dental wear and metabolic bone disease.
- Nondental diseases of the stomatognathic system are relatively infrequent in rabbits compared with the incidence of dental disease; these diseases are primarily composed of infectious, neoplastic, and congenital abnormalities of the lips, tongue, salivary glands, and jaw.

ANATOMY AND PHYSIOLOGY OF THE RABBIT MOUTH

Dentition

The rabbit dental formula is $2(I2/1 C0/0 PM3/2 M3/3) = 28$. It is useful clinically to divide rabbit dentition into 2 groups: the incisor teeth set and *cheek teeth* (CT) set (premolars and molars). The 2 groups form 2 different functional units (**Fig. 1**). There is no anatomic difference between premolars and molars; therefore, they are commonly named CT. Each arcade can be divided in 2 quadrants (maxillary and

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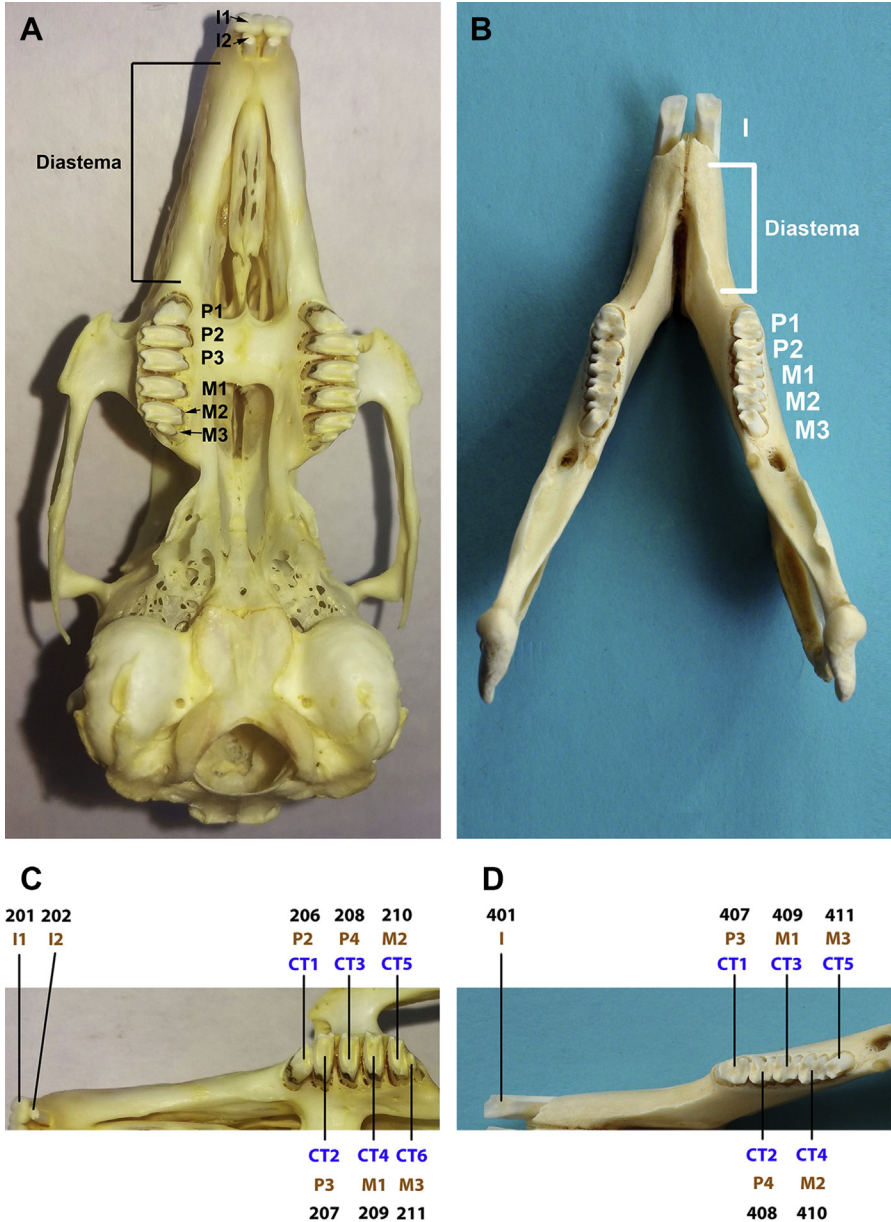


Fig. 1. (A–D) Dentition of the rabbit, displaying various numbering methods of teeth. (A) Maxillary jaw of a rabbit, ventrodorsal view. (B) Mandible of a rabbit, dorsoventral view. The system numbering existing teeth beginning from the rostral (mesial) is displayed in (A, B). (C) Close up of the left maxillary quadrant and (D) close up of the right mandibular quadrant. The modified Triadan system (black), the standard system (brown), and the practical system numbering the series of cheek teeth are displayed in (C, D). (Courtesy of Vittorio Capello, DVM; with permission. Photos by Tom Donnelly, DVM (A, C) and Vittorio Capello, DVM (B, D). Graphics by Vittorio Capello, DVM.)

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