

Introduction The maxillary premolars, also known as upper bicuspid, occupy a critical position in the dental arch between the canines and molars, serving both transitional and multifunctional roles in mastication. This comprehensive review aims to synthesize current understanding of the anatomical variations of upper premolars, emphasizing evidence-based findings and their practical applications in clinical dentistry. The first maxillary premolar typically features a prominent buccal cusp that assists the canine in tearing functions, while the second maxillary premolar generally has more blunt cusps, functioning more like molars in grinding actions. These teeth demonstrate remarkable anatomical diversity, presenting significant challenges for dental practitioners in various specialties including endodontics, periodontics, and restorative dentistry. This functional differentiation is reflected in their distinct anatomical configurations.