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Torus Palatinus and Airway Management

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Torus palatinus is a bony exostosis of the maxilla that affects 20 to 30% of people in the United States¹. Tori can be unilobular or multilobulated, pedunculated or flat. Large tori that protrude more than 5 mm from the maxilla comprise less than 5% of tori². The accompanying image is of a pedunculated torus palatinus measuring 2 cm in diameter, found during the pre-operative evaluation of a patient. There is no definitive explanation as to why torus palatinus occurs, though genetic factors, superficial injuries, and palate stress from mastication are thought to play a role¹.

These bony growths are covered by a thin mucosa that is susceptible to lacerations¹, which could cause peri-operative bleeding and swelling if traumatized. Large tori can develop sites that trap food², shown in the photograph with a potential cavity between the base of the lesion and the hard palate (arrow), thus posing an aspiration risk if any trapped food material

is dislodged while establishing an airway. A modified technique for insertion of a laryngeal mask airway in patients with a large palatal torus has been described, involving folding and guiding the cuff flaps around the mass³. Injury to the torus with other items frequently placed in the oropharynx should also be avoided, such as when placing orogastric tubes, esophageal temperature probes, oral airways, or transesophageal ultrasound transducers. With proper pre-operative evaluation and care to avoid trauma to the mucosa, the risks of aspiration, peri-operative bleeding, and post-operative pain for the patient can be minimized.

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