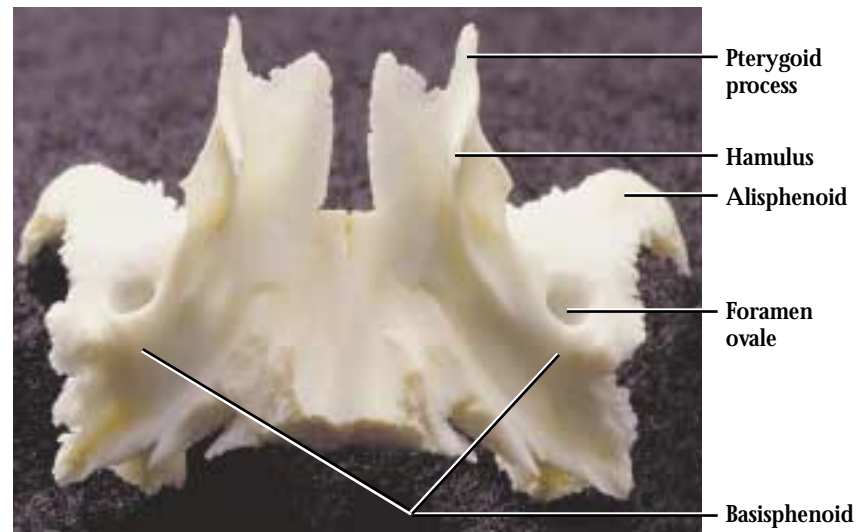


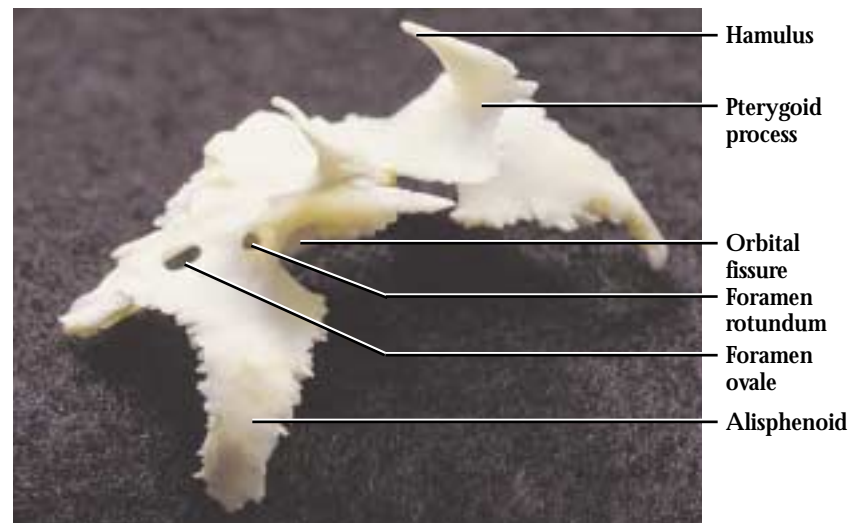
The supraoccipital or squamous portion forms an arch over the foramen magnum and articulates with the parietals and interparietals. The sharp edge of the arch that extends from one jugular process to the other is known as the **lambdoidal ridge** (nuchal crest). An inconspicuous median crest, the **external occipital crest**, extends from the lambdoidal ridge to the upper rim of the foramen magnum. The **external occipital protuberance** is located at the junction of this crest with the lambdoidal ridge.

The Sphenoid

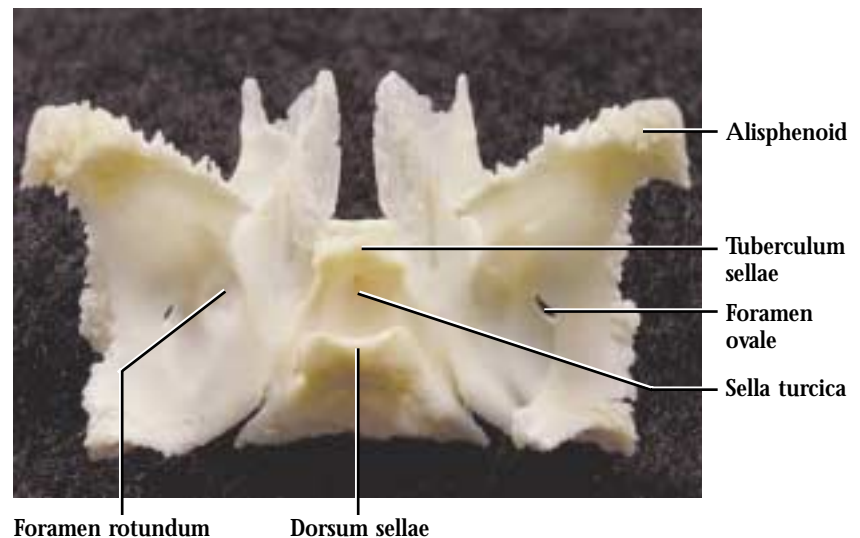
Anterior to the occipital sits the unpaired **sphenoid** [Figure 1–17A, Figure 1–17B, and Figure 1–17C] whose shape has often been described as resembling a butterfly. The body of the “butterfly” is known as the **basisphenoid** whereas the wings are referred to as the **alisphenoids**. Two anteriorly oriented projections termed the **pterygoid processes** have fused with the alisphenoids. In mammalian ancestors these processes were separate pterygoid bones. The **hamulus**, a thin rod, extends posteriorly from the body of the pterygoid process. As previously mentioned, these processes articulate with the pterygoid processes of the palatine. Dorsal to the pterygoid process are three foramina. The cranial margin of the first of these openings, the **orbital fissure**, is incomplete, however, the articulation of the presphenoid with the sphenoid at this site completes the cranial margin of the fissure [Figure 1–18]. Through this opening passes the Oculomotor Nerve (C.N. III), the Trochlear Nerve (C.N. IV), the Ophthalmic division of the Trigeminal Nerve (C.N. V) and the Abducens Nerve (C.N. VI). **The single orbital fissure of the cat is represented in the human by a superior orbital fissure that is continuous with an inferior orbital fissure located in a comparable position.** Like the orbital fissure in the cat, similar nerves and blood vessels are transmitted through these openings. The middle opening of this trio of foramina in the cat is the **foramen rotundum**, through which passes the Maxillary branch of the Trigeminal Nerve (C.N. V). The third opening is the **foramen ovale**, through which exits the Mandibular division of the Trigeminal Nerve (C.N. V). **In the human there is an additional small foramen, the foramen spinosum, that is located postero-lateral to the foramen ovale. Through this foramen passes a branch of the mandibular nerve and blood vessels.** Laterally, the dorsally curved portion of the



A Ventral view



B Lateral view



C Dorsal view

FIGURE 1-17 Sphenoid.