

Activity: Is the Skeleton Male or Female?

The pelvis tells the story.

Distinct features adapted for childbearing distinguish adult females from males. Other bones and the skull also have features that can indicate sex, though less reliably. In young children, these sex-related features are less obvious and more difficult to interpret. Subtle sex differences are detectable in younger skeletons, but they become more defined following puberty and sexual maturation.

What are the differences? Compare the two illustrations below in Figure 1.

- | Female Pelvic Bones | Male Pelvic Bones |
|--|---|
| <ul style="list-style-type: none">• Broader sciatic notch• Raised auricular surface | <ul style="list-style-type: none">• Narrower sciatic notch• Flat auricular surface |

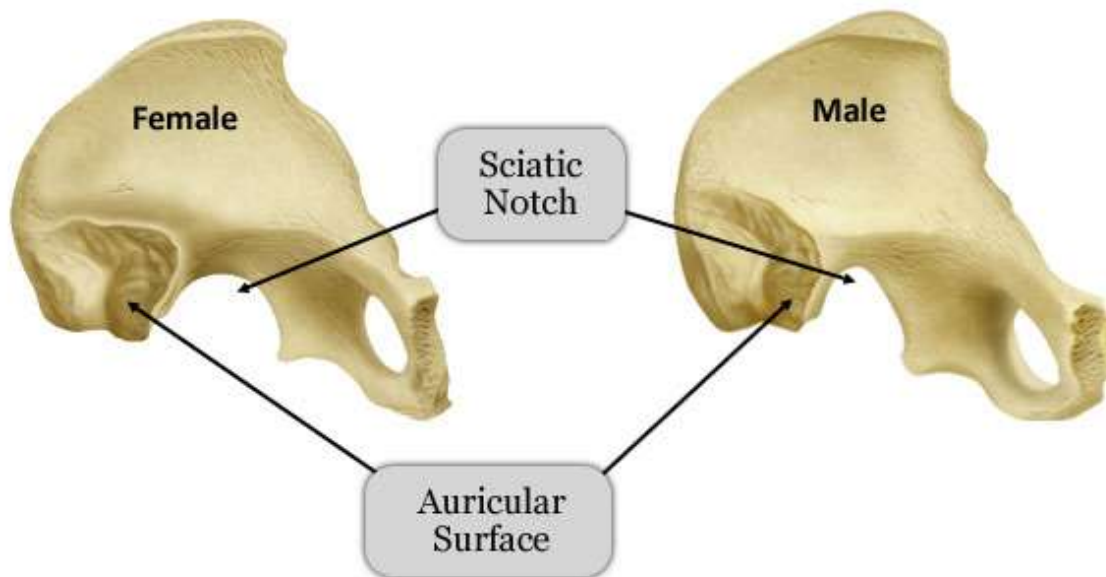


Figure 1. Female and male pelvic bones. (Source: Smithsonian Institution, illustrated by Diana Marques)



Figure 2. Pelvic bone of the skeleton in the cellar. (Source: Smithsonian Institution)

Skull (Cranium and Mandible)

Male Skulls

- Generally larger than female
- Larger brow ridges, with sloping, less rounded forehead
- Greater definition of muscle attachment areas on the back of the head
- Larger projections behind the ears (mastoid processes)
- Square chin with a more vertical (acute) angle of the jaw

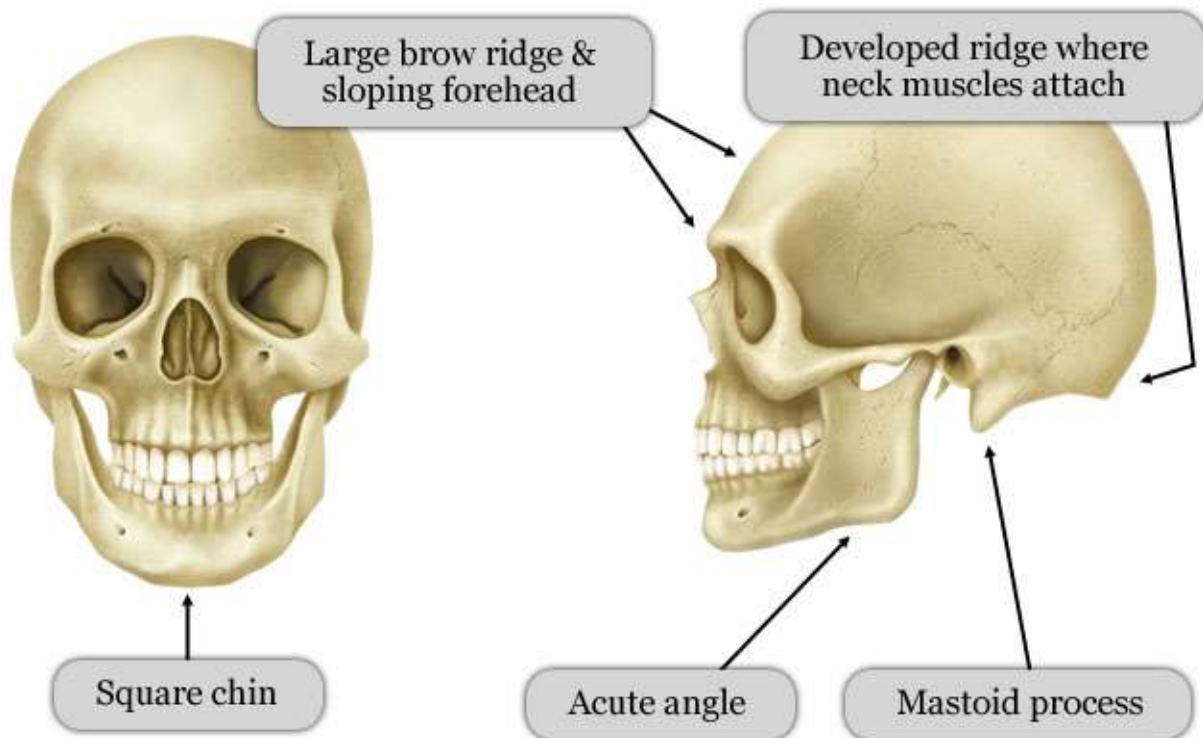


Figure 3. Male skulls. (Source: Smithsonian Institution, illustrated by Diana Marques)

Female Skulls

- Smoother bone surfaces where muscles attach
- Less pronounced brow ridges, with more vertical forehead
- Sharp upper margins of the eye orbits
- Smaller projections behind the ears (mastoid processes)
- Chin more pointed, with a larger, obtuse angle of the jaw

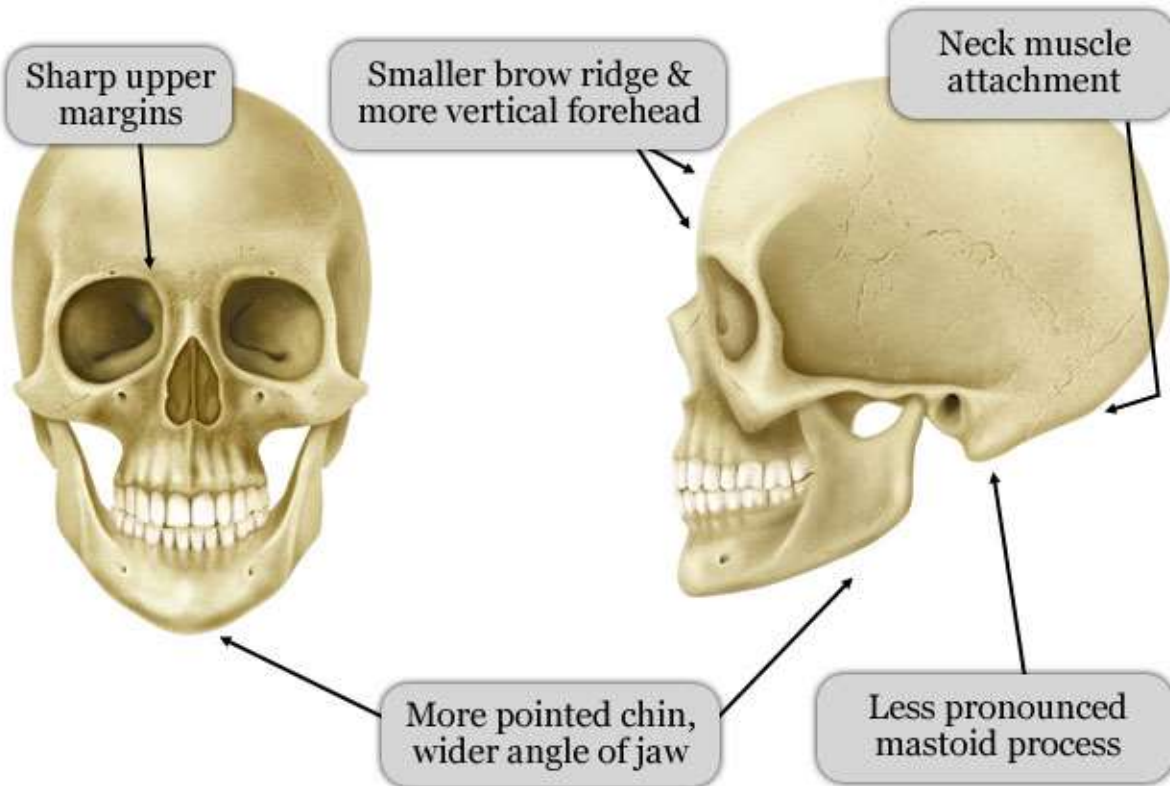


Figure 4. Female skulls. (Source: Smithsonian Institution, illustrated by Diana Marques)

What Do You Think?

Comparing the skull from the cellar in Figure 5 (below) with the illustrated male and female skulls in Figures 3 and 4, write Male or Female to note the sex depicted by each feature.



Figure 5. Skull of the skeleton in the cellar. (Source: Smithsonian Institution)

Questions to Ask:

Is the brow ridge large and sloping or small and vertical?

Is there a definite angle at the neck muscle attachment or not?

How pronounced is the mastoid process?

How sharp is the upper eye orbit margin?

How wide is the angle of the jaw?

How pointed is the chin?

From your answers, do you think this was a male or female?



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This page is part of the [Smithsonian's The Secret in the Cellar Webcomic](#), an educational resource from the *Written in Bone* exhibition, February 2009 – 2014.