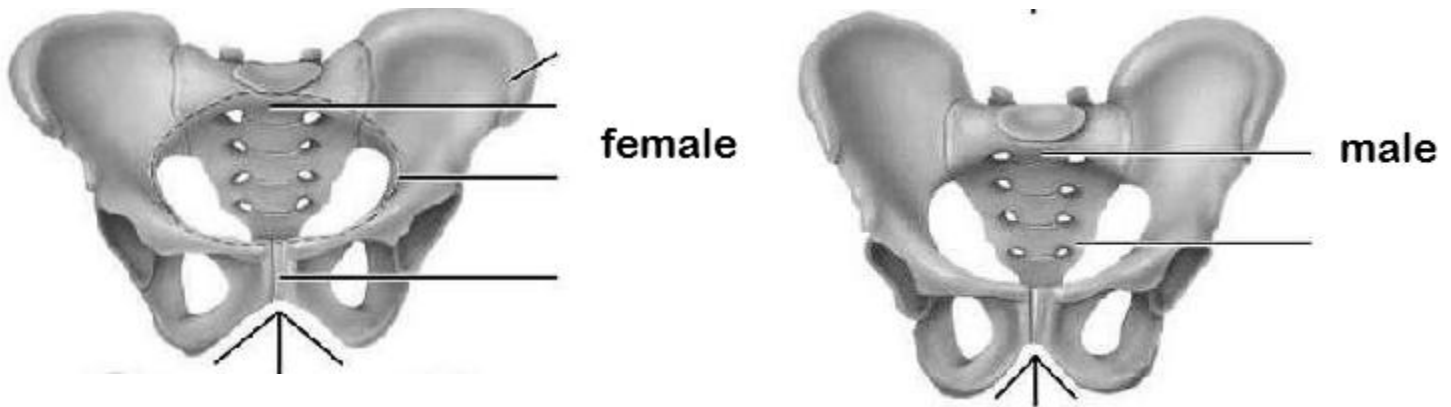


Forensic Lab

Is the skeleton male or female? Young or old?

Use the tools below to deduce the answers.

Sex Characteristics of the Pelvis		
Feature	Male	Female
A. obturator foramen shape	Large, ovoid	triangular
B. acetabulum size	Large	Small
C. subpubic angle	V-shaped	U-shaped
D. sciatic niche shape	Narrow	Deep wide
E. ilium shape	High, vertical	Wide
F. pelvic inlet shape	Heart-shaped	Circular
G. sacrum shape	Long, narrow	Short, wide



Sex Characteristics of the Skull		
Feature	Male	Female
a. Supraorbital ridge	Prominent	Slender
b. Occipital protuberance	Prominent	Slender
c. Mastoid process	Long	Broad short
d. Mandible	Square	v-shaped

Measuring Bone Density: Can tell age

If you take a sample of bone and wash out the liquid bone marrow, the remaining bone is about half mineral and half protein. The weight of mineral per volume of bone is the **Bone Mineral Density**. This is determined by two things: how many mineral atoms are deposited within the bone matrix, and how porous the matrix is. The strength of the bone is largely determined by the bone mineral density.

Osteopenia is defined by the WHO as a T score of -1 to -2.49 and osteoporosis as -2.5 or less. These values are based on bell curve distributions in a healthy population of 30 year old women.

