

Empty sella syndrome is a rare disorder characterized by enlargement or malformation of a structure in the skull known as the sella turcica. The sella turcica is a saddle-shaped depression located in the bone at the base of skull (sphenoid bone), in which resides the pituitary gland. In empty sella syndrome, the sella turcica is either partially filled with cerebrospinal fluid and a very small associated pituitary gland lying in the floor of the sella (partially empty sella) or completely filled with cerebrospinal fluid with no visualized pituitary gland (completely empty sella). Most individuals with empty sella syndrome do not have any associated symptoms, but the finding raises concerns about hormone deficiencies. Empty sella syndrome may occur as a primary disorder, for which the cause is unknown (idiopathic), or as a secondary disorder, in which it occurs due to an underlying condition or disorder such as a treated pituitary tumor, head trauma, or a condition known as idiopathic intracranial hypertension (also called pseudotumor cerebri) during which elevated intracranial pressure causes empty sella syndrome. Primary empty sella syndrome affects approximately 4 times more women than men. Most cases occur in middle-aged women who are obese and have high blood pressure (hypertension). Because most people with empty sella syndrome do not have symptoms and may go undiagnosed, determining the disorder's true frequency in the general population is difficult. Some researchers have estimated that less than 1 percent of individuals with empty sella syndrome ultimately develop symptoms associated with the disorder, although this may be higher in men compared to women. A diagnosis of empty sella syndrome is made based upon identification of characteristic symptoms, a detailed patient history, a thorough clinical evaluation and specialized imaging techniques. Imaging may include computerized tomography (CT) scanning and magnetic resonance imaging (MRI). During CT scanning, a computer and x-rays are used to create a film showing cross-sectional images of certain tissue structures. An MRI uses a magnetic field and radio waves to produce cross-sectional images of particular organs, tissues and structures such as the sella turcica.