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## Skull Fracture

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### Definition

Skull fracture is the fracture of the bone surrounding the brain. Skull fractures occur most commonly in motor vehicle accidents, in physical assault, following falls from extreme heights, and less commonly, in severe sports-related injuries. In some types of skull fracture, meninges and blood vessels surrounding the brain can be damaged leading to a collection of blood in the sinuses or on the brain surface. This may lead to initial brain edema (swelling). Cerebrospinal fluid, which flows over the surface of the brain, may also be displaced and leak out through the nose or ear. Types of skull fractures include simple, linear, compound, and depressed fractures. Simple skull fracture is characterized by a break in the skull bone without displacement of the fractured fragment. Simple skull fracture without displacement may absorb some of the impact of head injury, providing protection to underlying brain tissue.

Linear skull fracture is a simple break in the skull bone that follows a straight line; the fracture causes the bone surrounding the area of impact to bend outward, whereas the fractured bone segment bends inward. A compound skull fracture, also known as open skull fracture, involves fracture of the bone that may also lacerate the scalp and the underlying meninges of the brain and/or mucous membranes of the face. Depressed skull fracture describes the situation in which bone fragments impact brain tissue directly, causing further damage and susceptibility to bacterial infection.

### Cross-References

► [Depressed Skull Fracture](#)

### References and Readings

- Graham, D. I., Saatman, K. E., Marklund, N., Conte, V., Morales, D., Royo, N., & McIntosh, T. K. (2006). The neuropathology of trauma. In R. W. Evans (Ed.), *Neurology and trauma* (2nd ed., pp. 45–94). New York: Oxford University Press.
- Victor, M., & Ropper, A. H. (2001). *Principles of neurology* (7th ed., pp. 925–953). New York: McGraw-Hill.