

Medicine and the moon



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Over the centuries, the moon has lent its name to describe human anatomy and disease. To commemorate the July 20, 1969 Apollo 11 lunar landing, more than 50 years ago, some of medicine's most memorable moon related eponyms deserve to be highlighted.



The lunate bone

The lunate bone in the wrist was first named by Michael Lyser (1626–1660), a German physician and anatomist. Lyser studied medicine in Copenhagen, and in 1653 published his work *Culter Anatomicus*, in which he named the eight carpal bones.¹ He used the Latin term *lunatum* to describe the lunate bone because of its half-moon (*semilunarem*) form. Prior to Lyser's time, the wrist bones were identified by their numerical position in the carpal series.

The semilunar heart valves

The shape of the semilunar heart valves (aortic and pulmonary valves) was first described by Philistion of Locri, Italy, a physician and writer on medicine during the 4th

Century BCE.² Philistion wrote that these valves appear in the form of “half-cut of a circle,” as translated from the original Greek text ἡμίτομα κυκλου (*hemitoma kuklou*).

In another anatomic writing, Philistion used the term “moon-shaped,” or *mēnoeides* (μηνοειδές) in the original Greek text, to describe the difference between the front and back of the shoulder.³

The lunula of the human nail

Lunula means “little moon” in Latin and has been used to describe human nail anatomy since the 1800s. The lunula is the small, whitish half-moon shaped part of the visible nail matrix. It is best seen on the thumb and big toe. Alterations in the morphology and color of the lunula can be an indication of a cutaneous or a systemic disorder,⁴ such as:

- Macrolunula (enlarged lunula) can be seen in hyperthyroidism, and leprosy.
- Microlunula (diminished lunula size) and anolunula (absence of the lunula) can be seen in atherosclerosis, HIV infection, Trisomy 21, renal failure, multiple myeloma, and acromegaly.
- Blue lunula can be found in argyria and hepatolenticular degeneration.
- Red lunula can be found in carbon monoxide poisoning, rheumatoid arthritis, systemic lupus erythematosus, congestive heart failure, and chronic obstructive pulmonary disease.



Illustration by Claire Gilmore

The “moon face” of Cushing syndrome

Although the term “moon face” is recognized in medicine as a striking clinical feature of Cushing’s syndrome, it was first used to describe the face of myxedema. In 1873, Sir William Gull (1816–1890), an English physician, gave one of the first descriptions of myxedema. His very hypothyroid patient, “Miss B,” developed a puffy face, which according to Gull was “...altering from oval to round, much like the full moon at rising.”⁵

In 1932, Julius Bauer (1887–1979), a professor of Medicine in Vienna, used the German term *vollmondgesicht*, meaning “full moon face,” to describe a woman with facial adiposity and other clinical features of what is now called Cushing’s syndrome, which results from excessive glucocorticoid levels in the body. Bauer forwarded this case history to the noted American neurosurgeon Harvey Cushing (1869-1939) (AΩA, Harvard Medical School, 1914) who published Bauer’s case and 13 similar cases, translating *vollmondgesicht* as “round ‘moon face.’”⁶

Apollo 11

The American dream to land a man on the moon was fulfilled in 1969. This monumental achievement stands as a tribute to NASA and to our courageous astronauts who pioneered the United States space program. May the 1969 Apollo 11 lunar landing inspire us to continue America’s mission in space, as we strive to better the health and well-being of humankind here on Earth.

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