

**1** Pharmacies, hospitals, and medical schools were **common** in the early Muslim world.

**2** Unlike healing centers in ancient Greece, the **pioneering** health-care system in Muslim civilization focused on diagnosis and treatment rather than on **miraculous cures**.

**3** Hospital patients in the early Muslim world might take **syrups**, pills, and powders; undergo surgery; or have a **cast** put on a broken leg.

**4** Muslim rulers competed with each other to create the best hospitals that were **open to all**.

**5** The **first** major hospital was **built** in Cairo, Egypt, between 872 and 874. It was named for Ahmad ibn Tulun, a Muslim ruler in Egypt.

**6** Unlike in the Western world today, **herbal medicine** in the 10th-century Muslim world was not seen as **alternative medicine**.

**7** A thousand years ago in the Muslim world medical care was **free** for everyone and included very advanced treatments—even **music therapy**.

**8** Because Muslims are **honor-bound** by the Quran to care for the sick, early hospitals treated people of **all faiths**, rich or poor, man or woman.

**9** The earliest hospitals in Muslim civilization began in **Baghdad** in the 8th century.

**10** Patients with **leprosy** could get treatment at Al-Qayrawan hospital in 9th-century Tunisia, even though many people thought the disease was a **sign of evil**.

**11** Al-Nuri Hospital in Damascus, Syria, had inspectors who made sure the care met the **highest standards**.

**12** Damascus's highly advanced hospital was one of the first **teaching hospitals** in the world.

**13** Doctors in Muslim civilization were required to have **rigorous medical training** in a teaching hospital, much like doctors are today.

**14** Muslim hospitals were built in southern Spain and other areas of Europe that were part of **Muslim civilization**.

**15** Muslim hospitals were funded by **charitable gifts** called *awqaf*.

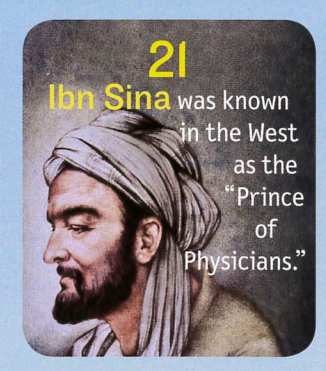
**16** Muslim scientist Sinan ibn Thabit ibn Qurra started **mobile** hospital services for rural areas.

**17** In the 13th century Ibn al-Nafis accurately described how in the **lungs**, blood coming from the heart **mixes with the air**.

**18** Ibn al-Nafis was **not credited** with this great discovery until **1957!**

**19** In the 17th century an English doctor named William Harvey discovered the complete **blood circulatory** system.

**20** Eleventh-century doctor and philosopher Ibn Sina developed a method for treating **fractured bones** that is still used today.



**21** Ibn Sina was known in the West as the "Prince of Physicians." **22** Ibn Sina wrote a highly **influential** medical textbook: the *Code of Laws in Medicine*, or the *Canon*.

**23** The *Canon* was printed in Rome in 1593 and went on to become a **standard text** in European medical schools.

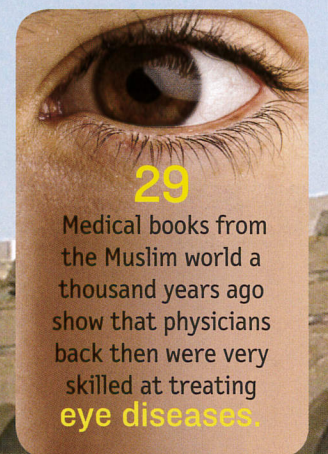
**24** The *Canon* influenced the layout of modern medical textbooks, such as *Gray's Anatomy*, first published in 1858 and now the leading Western medical encyclopedia.

**25** Medical books written in the 11th-century Muslim world were **translated** from Arabic into Latin to help spread the knowledge in Europe.

**26** The first book solely on **pediatrics**, or children's medicine, was written by Tunisian-born Ibn al-Jazzar al-Qayrawani back in the 9th century.

**27** The first known alphabetical classification of medical terms was called *Kitab al-Ma'a*, or *The Book of Water*. The odd title comes from the fact that *Al-Ma'a*, which means "the water," is the first entry.

**28** *The Book of Water* was rediscovered by the modern world, and in 1996 it was published by the government of Oman.



**29** Medical books from the Muslim world a thousand years ago show that physicians back then were very skilled at treating **eye diseases**.

**30** The *Notebook of the Oculist*, written in the 10th century, describes **130 eye diseases**.

**31** As early as the year 1000, physicians in the Muslim world were working to find ways to **prevent blindness**.

**32** Of the 30 ophthalmology textbooks written during early Muslim civilization, **33** Al-Kindi, a 9th-century scholar, was the first doctor to systematically determine **the dosage** for some drugs.

**34** Tribes in the Middle East and Africa were among the ancient peoples who knew of a life-saving process called **inoculation**.

**35** In inoculation, or immunization, patients are given a controlled dose of a **disease-causing organism** so that their immune system learns to fight off the disease.

**36** Edward Jenner is credited as the pioneer of **vaccination**. Unlike inoculation, Jenner used cowpox rather than smallpox itself to provide protection.

**37** The word "vaccination" is derived from the Latin word *vacca*, meaning "cow."

**38** In 1796 Jenner infected a young boy with cowpox, believing that it would immunize him against the **smallpox** virus. Lucky for all, the process worked.

**39** Pharmacies existed in Iraq more than a **thousand years ago**.

**40** Smallpox was one of the **deadliest diseases** in the world until 1980, when it was wiped out as the result of a worldwide vaccination campaign.

**41** It is estimated that more than **300 million** deaths worldwide in the 20th century can be attributed to smallpox.

**42** In 1967 the Turkish Postal Authority issued a stamp commemorating the **250th anniversary** of the first smallpox vaccination.

**43** In 1721 Lady Mary Montagu, wife of the English ambassador to **Istanbul**, brought the idea of inoculation to England from Turkey, where it was well-known.

**44** Spanish doctor Al-Zahrawi wrote the first **illustrated** book on medicine and surgery.

**45** Ibn Sina's *Canon* had 142 **herbal remedies** made from plants, trees, seeds, and spices.

**46** Al-Zahrawi had his patients swallow drugs in parcels made of **catgut**—the forerunner to present-day capsules.

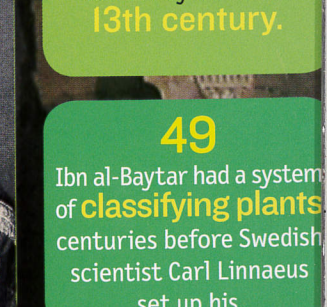
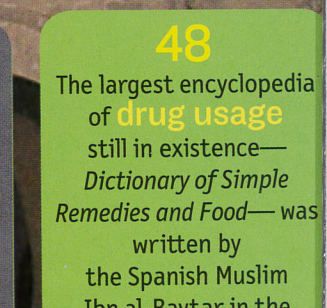
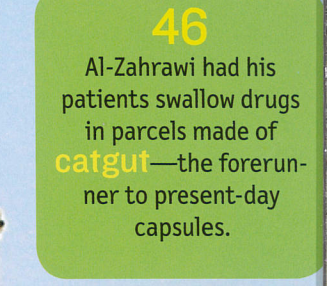
**47** Thanks to translations from Arabic to Latin by **Constantine the African**, a Tunisian scholar, medicine from the Muslim world found its way to Europe.

**48** The largest encyclopedia of **drug usage** still in existence—*Dictionary of Simple Remedies and Food*—was written by the Spanish Muslim Ibn al-Baytar in the **13th century**.

**49** Ibn al-Baytar had a system of **classifying plants** centuries before Swedish scientist Carl Linnaeus set up his.

**50** Ahmad ibn Tulun Hospital in Egypt was the first to include a **mental health** department.

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# 50 Healing Facts About MEDICINE

Al-Qayrawan hospital in Tunisia

