Case histories
Syphilis

For early modern physicians syphilis was "the great imitator", a disease that mystified with the sheer range of its symptoms and the length of time it might take to show itself. Syphilis was first recorded in Europe in the mid-1490s, and the coincidence with Christopher Columbus' first voyage to the New World led contemporary physicians (along with more recent archaeologists and historians) to conclude that his sailors had brought the disease back with them.

By the 17th century, mercury had become the standard European therapeutic for this new plague. Mercury could be taken orally, injected into the urethra with a syringe, or made into an unguent and rubbed onto the skin. This cure could be as fearsome as the disease, provoking uncontrollable salivation along with ulcers, loose teeth, fragile bones, and nerve damage in an attempt to rid the body of corrupted humours.

From the mid-18th century, physicians and surgeons argued over whether syphilis and gonorrhoea were two different diseases, or two expressions of the same disease. In 1767 British surgeon John Hunter claimed to have proved, on the basis of an experiment in which he inoculated himself with gonorrhoea, that they were identical; he seems unwittingly to have used a needle also contaminated with syphilis. In 1837 the French–American physician Philippe Ricord repeated the experiment, not on himself but on 17 prisoners in Parisian jails, showing that gonorrhoea was a separate disease and not a symptom of syphilis. Ricord went on to describe three stages of syphilis: primary and secondary arose within weeks or months of infection, but tertiary syphilis might take a decade or more to develop after a period of latency. His student, the dermatologist Jean Alfred Fournier, showed that two apparently psychiatric disorders—general paresis of the insane, a severe form of dementia, and tabes dorsalis, a creeping blindness and paralysis—were symptoms of tertiary syphilis.

Historically, European societies had responded to public concerns over syphilis and other venereal diseases by regulating and punishing those seen to be responsible for their spread—sex workers. An outcry over venereal disease among soldiers and sailors in the Crimean War led the UK Government to pass a series of Contagious Diseases Acts in the second half of the 1860s. Under this legislation, police officers could arrest and examine any woman found within a certain distance of army or navy barracks—a measure that generated enormous opposition among the public, the medical profession, and first-wave feminists such as Josephine Butler.

In the first decade of the 20th century, scientists working in German laboratories gained fresh purchase on "the great imitator". The dermatologist Erich Hoffmann and the zoologist Fritz Schaudinn identified a bacterium, *Treponema pallidum*, as the causative agent of syphilis in 1905, and a year later the bacteriologist August von Wassermann developed a diagnostic test for infection. In 1909 the physician Paul Ehrlich announced the discovery of a pharmaceutical treatment for syphilis. Salvarsan (arsphenamine) was highly toxic but effective, and the first specific chemical therapeutic to emerge from the new paradigm of laboratory medicine.

Through the 20th century the study and treatment of venereal diseases slowly became a respectable part of mainstream medicine. From 1945 penicillin offered an effective cure without the side-effects of arsphenamine, but sexual and racial stigma has proved persistent. Public health campaigns through both World Wars continued to portray "loose women" as the source of the disease, and the exposure of the ethically unjustified Tuskegee syphilis study in 1972 revealed the complicity of the US Public Health Service in depriving hundreds of black American men of treatment for their syphilis, even after penicillin had been introduced.

In the early 21st century, syphilis is still a common problem in low-income and middle-income nations, though antenatal screening programmes have reduced rates of congenital disease. The past decade has witnessed an increase in western Europe and the USA, particularly in men who have sex with men, and the value of penicillin—still the only recommended treatment—is under threat from antibiotic-resistant strains.

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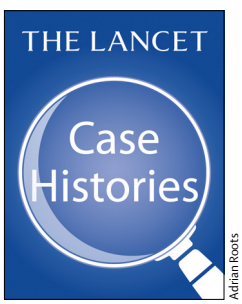
WPA Public Health Poster, "Stamp out Syphilis and Gonorrhea", 1938 (colour litho), American School, (20th century)/Private Collection/Prismatic Pictures/Bridgeman Images



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For more on **syphilis** see http://www.thelancet.com/clinical/diseases/syphilis

Further reading

Davidson R, Hall LA. Sex, sin and suffering: venereal disease and European society since 1870. London: Routledge, 2001

Levine P. Prostitution, race and politics: policing venereal disease in the British Empire. London: Routledge, 2003

John Parascandola, Sex, sin and science: a history of syphilis in America. Westport: Praeger, 2008