

Hygiene, Health, and Disease

Medieval towns were far from clean. Standing water, animal faeces, privy contents, the unburied dead and rubbish could be found in the streets, and animals and fish were slaughtered there. Geese and pigs roamed freely. Dogs and cats scavenged in the streets and even ate bodies from the gallows. Although some towns appointed street cleaners, the towns were still dirty. Pollution from burning peat or wood made the air hard to breath. Water was contaminated with a variety of bacteria and chemicals from the dyers and tanners.

Four main sources of information help us to understand health in the Middle Ages. First there are documents from medical practitioners that discuss common conditions and contemporary treatments. Some manuscripts include illustrations of medical procedures. Second, there are collections of healing miracles recorded at various shrines. These often describe the nature of the affliction in some detail and perhaps mention where else the sufferer had sought help before his or her eventual cure. Archaeological evidence can also be revealing. For instance plant remains found on the sites of former hospitals and monasteries can be examined to determine what ingredients they used for their medicines. Finally, skeletons uncovered by archaeologists can provide a wealth of information about the nature of health in the Middle Ages, such as the causes of death, common diseases and afflictions that ailed folk and also the average life expectancy.



There were three major scourges of the Middle Ages: **plague**, **leprosy** and **syphilis**.

Plague

The plague that swept across Europe first arrived in Scotland in 1349. The plague was a viral infection that came in two forms: **bubonic**, affecting the lymphatic system, and **pneumonic**, affecting the respiratory system. The pneumonic variety was most prevalent in the damp environment of Scotland. At the time, it was believed that the disease could be carried on objects and food; today it is thought that the virus was likely spread through human contact.

Isolation was the primary response to the plague. Thus, if there was an outbreak in one town others would cut it off and refuse to admit members of infected communities. This affected trade which often had to cease, and led to monetary difficulties for all involved. Individuals who were infected were forced to isolate themselves within their homes or were sometimes sent beyond the limits of the town.



The Plague had a devastating effect on populations throughout Europe in the Middle Ages as this image from the 1490s shows.

This obligatory isolation was enforced by local authorities and harsh punishments (including corporal punishment) were meted out to those who violated the rules. In 1456, the Scottish Parliament passed its own set of laws regarding plague control to unify the official response to the disease. Various measures were taken. For example juniper wood and herbs were burnt to cleanse an infected home. Dry powders were sometimes used for the same purposes. The first round of the plague affected the poor the most for, unlike the wealthy, they could not flee the towns. However, those who survived perhaps developed some kind of resistance for when the second wave struck it was the upper ranks who suffered the greatest losses. However, the plague did not discriminate and claimed the lives of people of all ages and ranks. The most impoverished people were charged with the task of collecting the dead and working as gravediggers. This led to accusations that the poor deliberately spread the disease to secure their employment.

Leprosy



Lepers were often isolated from communities and housed in special hospitals outside towns.

Lepers were often sent to reside in leper hospitals situated on the outskirts of towns. Leper hospitals accounted for a fifth of the total number of hospitals at this time. Some towns permitted lepers to return at designated times of the week but they were required to carry a token of identification that labelled them 'diseased.' Most towns enforced severe punishments for violating these rules; those who were infected as

well as those who harboured them in the town would be brought to charge. There was a great amount of sympathy for lepers amongst the population and folk donated money to build leper hospitals and provide care. Excess food was also given to the hospitals. Animals found dead or wounded while hunting were donated to leper hospitals. Rotten meat from the markets was also sent their way. Since lepers were already infected, the people did not see the harm in sending them second-rate food. However, this generosity – or a sense of responsibility – for lepers was reserved for those who had been born and raised in the town. Indeed hospitals might refuse lepers who were not natives. Leprosy was considered curable. The decay of the flesh was viewed by some as an outward manifestation of moral decay. Thus leper hospitals often contained a shrine to a saint of healing.

Syphilis

Syphilis was also seen as a disease of the soul rather than of the body. It was known that syphilis could be spread through sexual promiscuity and this contributed to the stigma of the disease. In Aberdeen, some measures were taken to control or remove prostitutes from the town in order to contain syphilis. During medieval times, the disease was commonly referred to as 'grandgore.' There are many outward signs of the disease: scabs, a rash, wart-like bumps, weight loss, and even disfiguring, benign tumours. Accordingly the infected were immediately identifiable. Given the moral implications of the disease, it was common to make syphilis-related insults to one's enemy. A reference in William Dunbar's poetry reveals that syphilis was a common ailment by the 1500s. However, it is likely that the disease was prevalent in Scotland before the Middle Ages. Indeed the exact origins of the infection are unknown. Each country blamed its enemy for an outbreak as many men would return from war with syphilis. Thus, Germans blamed the French, the French blamed the Italians, and for the people of Scotland, syphilis was probably the 'English Disease.'

Other Ailments

Some common ailments beyond the three scourges included osteomyelitis (a pus-producing bacteria in the bone), cribra orbitalia (pitting of the upper eye socket due to anaemia), measles, whooping cough, diphtheria, parasites, chronic sinusitis, and tuberculosis. Dental problems affected everyone. Surprisingly the wealthy had more cavities than the poor whose heavy grain diet reduced plaque, although it also wore down teeth. St. Anthony's fire was a condition caused by ergot of rye; symptoms included convulsions, confusion and gangrene. Hypoplasia is evident in many of the bodies excavated; this is caused by metabolic shock and severe infection at a young age. Thus, most common ailments were caused by environmental conditions, an imbalanced diet or bacterial infection (antibiotics were not invented until 1928 by a Scottish biologist).

Treatment

There were a variety of methods of healing in the Middle Ages for those who became ill. The most expensive care was provided by university trained doctors who were male, for at this time a university education was open to men alone. However, surgeons' daughters and sometimes also physicians' daughters might be trained by their fathers to treat family and close friends. The primary methods of diagnosis at this time were uroscopy, which involved examining the colour, smell and even taste of the urine; and astrological analysis. The physician was university-trained and his academic dress set him apart from the surgeon. Surgeons were not, at least initially, university-trained and charged less money than physicians. They dealt with broken bones, war wounds and other ailments. Where there was a dearth of surgeons the barber might carry out surgical procedures and those who specialised in these were known as 'barber-surgeons'. In addition to a close shave, they would extract teeth, set broken bones and let blood. Apothecaries could be found at the market place and developed natural remedies and medicines to be purchased for ailments. Women served as midwives and were trained through practice rather than scholastically.

Some medical treatments were risky; others were based on common sense. Salves and medicines were made from a variety of materials including goose fat. Calcium oxide (Quicklime) was likely used as a disinfectant and deodorant while hemlock was used as a painkiller. Bloodletting (seyney) was a common procedure. Small incisions were made in the veins of the arms, usually with a knife but sometimes leeches were applied. This practice was based on the concept of the four humours that comprised blood, black bile, yellow bile and phlegm. According to Ancient Greek medicine an imbalance of the humours led to ill health. The removal of blood was thought to restore the body's balance while in reality it probably weakened patients who were fighting off disease.

In addition to medical treatment medieval folk sought spiritual healing. Saints were called upon for their healing powers and those who could afford to might undertake a pilgrimage. Signs of devotion to St Sebastian, St Roch and the Virgin Mary have been found at the temporary dwellings of those forced into isolation during the plague. Amulets with biblical verses were widely sold and said to protect against the plague. Some clerics condemned medical treatments and encouraged people to pursue spiritual means alone. While medical treatises used by academics advocated physical cures, they also recommended seeking God's help to heal and protect.



This medieval dentist, wearing a formidable necklace of teeth, extracts a tooth with a pair of silver forceps, 1360-1375.

Death and Dying

The average life expectancy in the Middle Ages was 31 years. However, this figure is affected by the high rate of infant mortality and a number of people lived to sixty, seventy or even eighty years of age. In fact, the founder of Rosslyn Chapel, Sir William St Clair, died in 1484, in his mid-seventies. Childbirth killed many young women but a number of men met untimely deaths in warfare. The wealthiest people tended to live the longest but even the rich were susceptible to disease and botched medical practices. It was often difficult to determine whether in fact folk were dead. Various recommendations were suggested such as poking the suspected corpse with a needle, pulling its hair or shouting loudly. In addition, a mirror or feather was held under the nose to test if the patient was still breathing.

Once dead, people were buried in a shroud or a wooden coffin. Most folk were buried outside the church in a grave marked by a stone or wood. Those who had the means might reserve a space for their family to be buried together. Their descendants could then remember their lineage and pray on their ancestors' behalves. Those of the highest status could afford to be buried in the church; burials close to the altar were the most highly prized and regarded as the most blessed. Unmarked and mass graves were widespread during the plague. But the plague also increased an awareness of death and as a consequence it became more common to reserve burial space and write wills and testaments.

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Useful Reading

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A 15th century funeral procession with a gravedigger in the foreground.

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