

## **Symptoms:**

[I]t began in both men and women with certain swellings either in the groin or under the armpits, some of which grew to the size of a normal apple and others to the size of an egg (more or less), and the people called them gavoccioli. And from the two parts of the body already mentioned, within a brief space of time, the said deadly gavoccioli began to spread indiscriminately over every part of the body; and after this, the symptoms of the illness changed to black or livid spots appearing on the arms and thighs, and on every part of the body, some large ones and sometimes many little ones scattered all around. ... Neither a doctor's advice nor the strength of medicine could do anything to cure this illness; on the contrary, either the nature of the illness was such that it afforded no cure, or else the doctors were so ignorant that they did not recognize its cause and, as a result, could not prescribe the proper remedy (in fact, the number of doctors, other than the well-trained, was increased by a large number of men and women who had never had any medical training) at any rate, few of the sick were ever cured, and almost all died after the third day of the appearance of the previously described symptoms (some sooner, others later), and most of them died without fever or any other side-effects.

Source: Giovanni Boccaccio, *The Decameron*, translated and edited by Mark Musa and Peter Bondanella (New York: W. W. Norton, 1977), 3-4, 6-9.

## **PREVENTION:**

We, the Members of the College of Physicians of Paris, ... intend to make known the causes of this pestilence. ... We, therefore, declare as follows: It is known that in India, and the vicinity of the Great Sea, the constellations which combated the rays of the sun ... exerted their power especially against the sea ... and the waters of the ocean arose in the form of vapor, thereby the waters were, in some parts, so corrupted that the fish which they contained died. This vapor spread itself through the air in many places on earth. ... [O]n all the islands and adjoining countries to which the corrupted sea-wind extends ... [if] the inhabitants of those parts do not [take the following advice,] we announce to them inevitable death—except the grace of Christ preserve their lives.

Every one of you should protect himself from the air; wormwood and chamomile should also be burnt in great quantity in the market places, in other densely inhabited localities, and in the houses. ... The diet should be simple. ... Cold, moist, watery food is in general prejudicial. Going out at night, and even until three o'clock in the morning, is dangerous, on account of the dew. Rainwater must not be employed in cooking, and everyone should guard against exposure to wet weather ... injurious are fasting and ... anxiety of mind, anger, and immoderate drinking. ... Bathing is injurious. Men must preserve chastity as they value their lives. Everyone should impress this on his recollection, but especially those who reside on the coast, or upon an island into which the noxious wind has penetrated.

Source: George Deaux, *The Black Death: 1347* (New York: Weybright and Talley, 1969), 52-3.

## THE TRUTH:

We now know that the Black Death was caused by a bacillus, *Yersinia pestis*; that about a hundred different species of flea can be plague carriers; and that some three dozen species of animals, including domestic animals, foxes, and birds have become infected by the plague. Rodent fleas (which bite humans) live also on cats and dogs, and fleas that normally live on human bodies infest dogs. Both flea types are plague transmitters. Another species of flea, which spreads the plague quite efficiently, commonly lives on both rodents and poultry. While rodents, especially rats, have probably been the most common carriers, a wide range of other animals, from kittens to chickens, play host to fleas that can spread the plague. Moreover, the role of fleas can be played just as well by lice or bedbugs, or by airborne particles emitted by those infected. It is the penetration of *Yersinia pestis* into the lungs or bloodstream of humans that causes them to come down with the disease.

*Yersinia pestis* reproduces extremely fast. Half a dozen plague bacilli on a host will multiply to several thousand within one day and to some hundred million within two days. A flea that bites a terminally-sick rat can suck up half a million plague bacilli, becoming so full of the plague organism that it can no longer digest any blood from its host. Blocked from feeding, it becomes hungrier and hungrier. Leaving its dead host, it will bite its new host, perhaps a human, again and again. It tries to feed but succeeds only in pumping hundreds of thousands of lethal plague bacilli into its victim. Animals the size of a monkey have died from the plague following the injection of a single bacillus of *Yersinia pestis*.

The several possible paths of transmission and the nature of the bacillus help to explain the rapidity of the Black Death's spread and the heavy mortality. It is interesting that quite a few contemporary observers recognized that animals also caught the disease. According to Middle Eastern sources, dead cats, dogs, and horses were found with the characteristic swellings under their limbs, especially in houses where people had died of the plague. Curiously, there is only a single reference in the available documentation to rats, though dead rats must have been found in abundance in plague-stricken neighborhoods. A Byzantine historian observed that the plague killed many animals living with humans—"dogs, horses ... and all species of birds, even the rats that happened to live within the walls of the houses."