

Air-borne disease. Alan Macfarlane

Smallpox

'The **first stage** begins with rigors, followed by heat and dryness of the skin, a quickened pulse, furred tongue, loss of appetite, pain in the pit of the stomach, with nausea, vomiting, headache and often pains on the back and limbs. The violence of the pains in the back, and the obstinacy of the vomiting, are frequently very well marked and characteristic symptoms. In children the disease is often ushered in with convulsions; while delirium sometimes attends its outset in adults. On the third day minute red specks begin to come out...These correspond to the incipient **pocks**, which can be felt like small shot under the skin...The vesicles gradually increase in breadth, and their contents becoming more yellow and opaque, are converted into pustules...The progress of the pustules is usually accompanied by swelling of the skin of the face, with a painful sensation of heat and tension; the scalp is often swollen; soreness of the mouth from a modified eruption there is often present; and the patient exhales a peculiar and disagreeable odour. About the eighth or ninth day of the disease a recurrence of the fever...sets in, with a return of the headache, restlessness, and sometimes delirium. The **third or declining stage** is little more than a period of convalescent...' **Malignant** smallpox is characterised by the severity of the onset, but particularly by the occurrence during the first few days of haemorrhages under the skin, and from the various orifices of the body.' (Chambers, Encyclopedia, s.v. Smallpox.)

Measles

'Its period of incubation ...is usually about a fortnight; then comes lassitude and shivering, which are soon followed by heat of skin, increased rapidity of the pulse, loss of appetite, and thirst. The respiratory mucous membrane is also affected, and the symptoms are very much the same as those of a severe cold in the head, accompanied by a dry cough, a slight sore throat, redness and watering of the eyes, and sometimes tightness of the chest. The eruption which is characteristic of the disease usually appears upon the fourth day from the commencement of the febrile symptoms and the catarrh...It is a rash, consisting at first of red papules of various sizes, which as they multiply, coalesce into crescentic patches.' (Chambers' Encyclopedia, s.v. Measles).

Tuberculosis.

There are three types, the human, the bovine and, rarely, the avian. The bacillus is 'a rod-shaped acid-fast organism'. The tubercle bacillus may enter the body by inhalation, ingestion, or direct inoculation. Inhalation of bacilli spread in droplet form by coughing, sneezing, or expectorations from tuberculous patients with open cavities is by far the most common method of spread...Intestinal infection also may result from ingestion of milk-borne bovine bacilli.¹

¹ Merck, Manual, 1335; cf also Kiple (ed), Diseases, 1059

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It is likely that tuberculosis is now widespread in the human population of urban societies. For instance, we are told that 'Autopsies showed that close to 100 percent of some urban populations, such as those of London, Paris, and other major industrial cities, had at some point in their lives developed the disease, although they had died of some other cause.'² The reasons why only a few die of this infection will become apparant shortly.

² Kiple (ed), *Diseases*, 1063