

Simple pit latrines

Pit latrines are one of the oldest forms of sanitation, and for many people today they are still the most appropriate. Pit latrines are simple to construct, can be built using local materials and local technologies. They are relatively cheap, easy to operate and maintain and, if properly used with suitable handwashing facilities, can help prevent the spread of many excreta-related diseases.

How do pit latrines work?

There are a number of different designs of pit latrine (sometimes called pit privies) but they all work in a similar way. Excreta, anal cleansing material and sometimes sullage and refuse fall into a hole in the ground where:

- the faeces and other organic material decompose through bacterial action, fungal attack and consumption by other organisms. The decomposition process may take place in the presence of oxygen (aerobic) or without oxygen (anaerobic). In most pits the fresh excreta is initially decomposed aerobically but as the material becomes covered by new excreta conditions turn anaerobic;
- gases such as ammonia, methane, carbon dioxide and nitrogen are produced and released into the atmosphere where they either escape through the top of the pit or are absorbed into the surrounding soil;
- urine, other liquids and soluble material are leached into soil;
- pathogens (organisms that may cause disease) are destroyed because conditions in the pit are not suitable for their survival; and
- the residual material is compressed and compacted slowly filling the pit.

