Sources of infection

To prevent contamination of surgical wounds, we need to remove or minimise contact with pathogens in the immediate vicinity of the wound.

There are three main sources of contaminants:

- the environment and equipment room and its contents—this includes the atmosphere and surgical equipment
- the personnel—this includes the clothing, hands, hair and exhaled gases. Did you know that the entry of personnel into the operating theatre greatly increases—by around 100 times—the number of airborne particles?
- the animal—the picture shows a clear source of infection, ie an animal with abscess.

Endogenous infection

The source of endogenous infections is from the patient. This route of infection accounts for the majority of wound infections and may occur by either of the following routes:

- Primary contact—at the wound site: from the skin, gut, respiratory or urinary tract contents
- Secondary contact: from an infected site on the animal at a distance from the wound.

Micro-organisms are carried to the wound by the blood or lymph—eg doing dental work at the same time as a desexing—greatly increasing the likelihood of wound infection.
Sterile and non-sterile procedures

Routine surgical procedures, such as desexing and minor skin tumour removals, are considered sterile procedures because bacteria do not normally live in healthy tissues.

Procedures, such as suturing dog fight wounds or lancing cat bite abscesses, would be considered non-sterile procedures as infection has already been introduced into the tissues.

Surgical drapes, gowns, gloves and masks are used to shield the animal from sources of contamination and various cleaning methods are employed to ensure that the environment and all necessary equipment are aseptically clean.