



Infection & Prevention



We are continually exposed to organisms which may infect our body.

These organisms are continually combatted by the body and we further assist our natural body defences against infection by ensuring we maintain good personal hygiene, such as washing and showering.

There are six factors involved for an infection to occur:

1. **An infecting organism** must be present;
2. **A source or pool** of organisms must exist;
3. Some of the organisms must **leave the source**;
4. **A Mode of transmission** must exist to enable transfer to host
5. **There must be a method of entry and an ability to hold in the host**;
6. The host must be **susceptible** to the organism.

If any one of these is absent then infection will probably not occur.

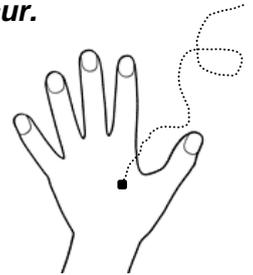
Source of Infection

Infection may come from -

- i) Air
- ii) Water
- iii) Food
- iv) Human or animal e.g.

- body fluids (saliva, droplets of moisture from coughing, sneezing, phlegm, exhaling; blood, infected wounds, vomitus; faeces, semen)

"And another bacterium
commits suicide"



Method of Entry

Because our skin is an excellent barrier to infection, infectious micro-organisms must enter the body through an opening either in the skin or elsewhere.

The following are some examples:

- By mouth
- Via the eye or other orifice
- Through the lungs
- Through a break in the skin

Susceptibility of Individuals

For an infection to occur a person must be susceptible to it. Some causes may be:

- Fatigue - reduces strength to fight off disease
- Stress - both mental and physical, lowers a person's ability to fight off infection
- Age - infants, young children and the very old are more susceptible to infection
- Nutrition - poor nutrition means that there are unhealthy body cells which have a lesser ability to fight off micro-organisms attacking them.

Incubation Period – It takes time for the micro-organism or parasite to establish itself within the body. This is called the incubation period. Usually there are no symptoms in this period. After that, symptoms begin.

People can infect other people during the incubation period, before their own symptoms appear. This can happen with illnesses such as influenza and measles.

Recognition of Infection

- Systemic infection
- fever
 - perspiration
 - loss of energy
 - aching joints and generalised pain
 - headache
 - may develop nausea &/or diarrhoea
 - runny nose e.g. influenza
 - loss of appetite
 - enlarged lymph glands
- Localised infection
- tenderness & swelling
 - redness
 - increased temperature at the site of infection
 - loss of function of the body part involved e.g. Joint stiffness

Prevention of Infection

- Keep fit, get adequate rest, sleep & healthy diet.
- Wash your hands before handling any food and immediately after managing any patient.
- Cover any open wounds you may have with a sterile / clean dressing before commencing work, ensuring you keep it dry and change if required.
- If possible, wear disposable gloves before treating any patient.
- Assume all bodily fluids are potentially infectious.
- Ensure you keep the area under your fingernails clean.

Special Note: For more information on infection control guidelines for first aiders, see *Emergency First Aid*, page.15)

Actions following exposure to infection

Following puncture or penetrating injury:

- ▶ **wash** area with antiseptic solution.
- ▶ **irrigation** with copious quantities of water
- ▶ **squeeze** the area to make it bleed

Following splashes to non-intact skin & open wounds:

- ▶ wash area with antiseptic solution
- ▶ irrigate with copious quantities of water

Following splashes to eyes and/or mouth:

- ▶ **irrigate** with copious amount of water

Note: If exposed to infection during normal working hours -

- ▶ IMMEDIATELY report to relevant 'In-House' staff. i.e. 'Occupational Health Nurse'

Note: If exposed to infection outside normal working hours -

- ▶ Report to your local hospital or doctor

End