

Causes of Infection

We are surrounded by micro-organisms, they're found inside us, on our bodies, they're in our food and they're in the environment.

Most micro-organisms are harmless, but some can have serious consequences particularly for vulnerable groups including older people or people with certain medical conditions.

There are many different types of micro-organisms such as bacteria and viruses.

For example a type of bacteria - *Salmonella enteritidis* causes food poisoning.

There are also viruses that cause diseases such as Norovirus or chicken pox.

If you would like to find out more about the different types of micro-organisms there is a basic microbiology tutorial available to you – you can find the link on the CD.

Micro-organisms need the right conditions to grow such as Warmth, Moisture and Food.

A single micro-organism can multiply by many millions in a single day. They are also highly adaptable and can change their structure to thrive in even the most hostile of conditions.

So it's a constant battle to prevent and control the spread of infections, particularly amongst older people, where an infection may be fatal.

The “chain of infection” describes the way an infection spreads. Infections can spread from one part of your body to another or from person to person, from the environment, food, or even animals. People can become infected by contact, touching something or someone, by breathing something in or by swallowing something; or infections can be introduced through a cut or wound or through contaminated care equipment such as feeding equipment.

In order for an infection to spread all links in the chain of infection must be connected.

Infectious agent. This is the micro-organism that can cause the infection e.g. norovirus, influenza, *E. coli*.

Reservoir. Places where the micro-organism can thrive and reproduce. Reservoirs might include people, equipment, food, dust and surfaces.

Portal of exit is the way out from the reservoir. This might include diarrhoea, vomit, body fluids such as blood and droplets from coughing and sneezing.

Preventing Infection in Care

Infection Prevention and Control:
Care Homes for Older People and
Home Environment



Transmission is how the micro-organism is moved from one site to another. For example this can be through the air or by contact.

Portal of entry This is the way the infectious agents can get inside the body, such as through an open wound or by swallowing it.

Susceptible host. This is anybody but some people including older people, those living and working in close proximity, or people with weakened immune systems, are particular susceptible to infection.

In order for an infection to spread all links in the chain of infection must be connected.

The further learning programmes on this DVD together with the information and documents contained within the CD will give you the information you need to break this chain.

The standard infection control precautions are the simple and practical steps that you can take to break the chain and prevent infections in care.

Everyone: the people you care for, visitors, family carers and of course staff have an important role to play. Many infections could be prevented if we all gave a little more thought to prevention and control of infection in our daily practice.

To break the chain of infection remember:

- Micro-organisms need the right conditions to grow
- All the links in the chain of infection need to be present for an infection to spread
- By following good infection prevention and control you can break a link in the chain and stop an infection spreading