## **Adult Guidance**

## **Changes in Old Age**

## **Last Stage of Human Development**

Old age is the last stage of human development and this lesson is concerned with the physical changes to the body. While cells are in a continual process of dying and regenerating during the different stages of development, in old age this process slowly declines although there is no actual end to the process prior to death. There are two ways that cells die:

- 1. Necrosis: When a cell is damaged by an external source.
- 2. Apoptosis: All cells are programmed to die. When they do the body cleans away these cells and they make space for new cells. An example of this is menstruation. Also if cells recognise mutations or viruses they may also deliberately die in order to prevent damage from spreading. Many cures for diseases such as cancer and AIDs are based on attempts to control the process of apoptosis so that unhealthy cells will die while healthy ones will not.

## **Stereotypes and Myths**

Old age is subject to many stereotypes which do not have a factual basis. For example, senility is considered to be almost inevitable yet it never affects the majority of the elderly at all. While we may be slower to perform tasks the older we get, the actual tasks themselves are based on memory and accuracy rates are high.

Aging is a continual process over time and does not just take place after 60. Each individual ages in different ways which is dependent on genetics, lifestyle and environment. The combination of these affects the quality of life of an individual in old age. Genetic factors do make some individuals predisposed to certain conditions and the extent to which this can be mitigated by environmental factors and lifestyle choices varies. However, a healthy lifestyle prior to old age does result in healthier and more active individuals. The damage done at other stages of life cannot be undone completely by becoming active in old age but it is still preferable than remaining inactive.

The continued development of the brain and the ability to make new connections needs to be emphasised in this lesson as the ability to learn new skills or apply them is not lost in old age. For example, Michelangelo created the architectural plans for the Sistine Chapel at the age of 88! Social norms, personality and environment can have a huge impact on how older people feel about themselves and what they are capable of doing. This should not be conflated with what they can actually do from a biological point of view.