Welcome to this lesson today on the effects of aging on your body. Today we will be discussing how the human body changes over time as a person ages. So senescence is another word that means aging. So senescence is a word that means aging. So as a person ages, various different types of visible changes and sometimes non-visible changes can occur.

So aging can cause visible changes to the skin, muscles, and skeleton. So some things that a person might notice happening as they age, for example, is that their skin begins to wrinkle. So basically, wrinkles are caused by changes in the structure and function of collagen and elastin proteins in the skin. As a person ages, these proteins change a little bit or the amounts of those proteins are less in the skin, which causes the skin to wrinkle.

Some other visible signs of aging are hair loss. A person's skin becomes more dry as they age, because the oil glands will start to break down. In addition to that, a person oftentimes becomes shorter as the age. And this is because the intervertebral disks become more compact as a person ages, causing them to lose some of their height.

In addition to all of this, muscles will also start to lose mass and lose strength. And bone cells become less efficient at generating new tissue. So these are all effects on our skin, muscles, and skeleton that can occur as we age. Also functionality of our organs and organ systems will begin to decline as we age. So our organs and organ systems over time become less efficient.

And how a person ages can also be affected by their genes and the amount of accumulated DNA damage. So genetics plays a role in how a person ages. Some people age better than others because of their genetics. So the things that we mentioned up here before, such as height loss or wrinkles or hair loss, might be more evident in some people than others depending on their genetics.

So hair loss is a sign of aging. But some people may lose their hair more quickly or may lose more hair than others. So it kind of just depends on genes and genetics there.

In a normal body cell-- so our normal body cells will divide 80 to 90 times before they die. So telomeres are these caps on the ends of chromosomes. So as cells divide, with each division they lose a little bit of these telomeres until only a nub remains. And then that is when the cell dies So a cell will divide 80 to 90 times, because after that amount of divisions there's nothing left of these telomeres but a little nub. So that's how the cell process can affect aging as well.

So these are some conditions that are associated with aging. We have Alzheimer's, menopause, and andropause.

So Alzheimer's disease is a disease that affects the brain. So this is an example of how aging affects the brain. So Alzheimer's disease results in memory loss and the decline of normal mental functions. So depending on the severity of the disease, it's going to affect these symptoms. So memory loss or decline of normal mental function in some people with Alzheimer's is more extensive than others. But those are just general symptoms of the disease.

Menopause marks the end of a menstrual cycle and fertility for women. So menopause for women usually happens around age 50. And this is around the time a woman will have her last menstrual cycle.

And so it's marking the end of her fertility. So the ovaries are producing less estrogen, less progesterone. Menstrual cycle is not occurring. And the woman is no longer able to have children at this point after menopause.

Andropause is often sometimes referred to as male menopause. So as a man ages, he will slowly over time have a decrease in testosterone levels. But he is still able to father children into his old age. So andropause is called male menopause, but it's a little bit different, because fertility will decrease, but it won't completely end. So women after menopause are no longer able to have children. But males will have a decrease in testosterone levels, but they actually can still have children into old age.

So this lesson has been an overview on the effects of aging on your body.