

BIO 225

Dr. Ian Ferguson

Answer to *Scientific Inquiry Question* - Chapter 41

Hemochromatosis, a hereditary single gene mutation, is characterized by the excess iron that builds up in the human body. The mutation causes this build up in the body by absorbing more iron from the food in the intestine and is then incapable of eliminating it. As time progresses, the iron will also build up in the tissues, pancreas, liver and the heart, which damages them.

The mechanism of this disease functions similarly amongst men and women, because both sexes have the same digestive systems. However, it affects them differently such that males will suffer from this disease ten times more than women will. This is because most women undergo a menstrual cycle and childbirth. These natural processes cause women to naturally lose a quantity of blood (containing a significant amount of iron) per month that reduces or eliminates the effects of this mutation. Men do not undergo such processes, which is why they are much more prone to suffering from this disease. However, women can still suffer from this disease once they reach the menopause stage of their lives, which causes them to stop menstruating and become infertile.

Source:

N.p., n.d. Web. <<http://www.diabetes.org/living-with-diabetes/complications/related-conditions/hemochromatosis.html>>.