Grades 7–8

Autoimmunity and Autoimmune Diseases: What You Should Know

The human immune system—including the spleen, lymph nodes, tonsils, bone marrow, and white blood cells—is a complex machine. It protects the body from outside invaders, including harmful bacteria and viruses. It knows the difference between good cells and the bad cells that can make you sick. It recognizes viruses, bacteria, and parasites. It marks them for elimination by white blood cells.

White blood cells called B cells recognize antigens (foreign bacteria and viruses). These B cells either eliminate them or create antibodies to attack specific antigens. The immune system is smart, too. Once it makes a specific type of antibody to fight a specific type of antigen, it will always remember. This is the way immunizations work, such as with chicken pox and the flu.

What Is Autoimmunity?

Autoimmunity is when the body’s immune system turns against the body itself. It is not uncommon and can be serious. And it can happen to anyone.

What Is an Autoimmune Disease?

An autoimmune disease happens when the immune system attacks the body and doesn’t stop. A combination of genetic and environmental factors generally causes an autoimmune disease. In fact, researchers believe that even people with a genetic predisposition to an autoimmune disease still require an environmental “trigger” to cause an autoimmune disease response. Autoimmune diseases you may know include multiple sclerosis, type 1 diabetes, and a skin disease called psoriasis.

About 50 million Americans suffer from autoimmune diseases. More than 75% of those with autoimmune diseases are women. Some people are treated with medicines, some with special diets. Some blood diseases require blood transfusions.

Now that you know about autoimmunity, you know a very unique way the body can malfunction. Being aware of autoimmune diseases can help you keep yourself and those you care about healthy.

Questions

1. What two things generally need to happen for people to get an autoimmune disease, according to the text?

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2. Name the three ways in which autoimmune diseases are treated.

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3. According to the text, what type of blood cell fights foreign invaders in your body, such as parasites, viruses, and bacteria?

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4. True or false: Women are more likely to get autoimmune diseases than men.

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5. Use text details to explain why it is important to know about autoimmune diseases.

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Answers

1. Genetic predisposition and an environmental trigger
2. Medicines, special diets, and blood transfusions
3. White blood cells, or B cells
4. True
5. Answers will vary.

Learn more about autoimmune disease at www.aarda.org.