

Technological Advances and Limitations in the Treatment of System Disorders

As you know, when harmful substances such as bacteria, viruses, or cancer cells invade the body, the immune system reacts by producing antibodies that attack the antigens in those substances. However, a malfunctioning of the immune system, known as an **autoimmune disorder**, eliminates the ability of the immune system to distinguish between harmful antigens and normal, healthy tissue. As a result, the immune system begins attacking and destroying normal tissues.

Scientists have discovered technologically advanced approaches for treating some of these system disorders caused by a malfunctioning immune system. Do some research to answer the following questions:

1. What are some of these technologically advanced approaches? Explain the underlying basis for each.
2. What are the limitations of these approaches? Would you expect them to work for all patients?