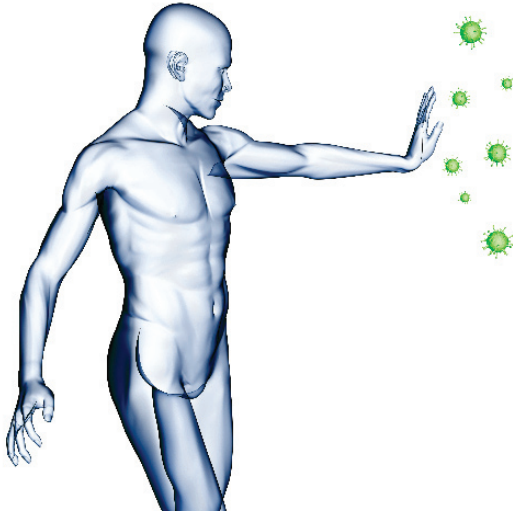


# THE IMMUNE SYSTEM – WHAT IS IT?

AT THIS TIME OF YEAR, WE ARE ALL TOLD TO TAKE SUPPLEMENTS AND EAT LOTS OF GARLIC TO SUPPORT THE IMMUNE SYSTEM, BUT WHAT EXACTLY IS THE IMMUNE SYSTEM?

The immune system is a collection of biological processes that protects the body against



disease. It identifies and kills pathogens and diseased cells within the body, detecting invaders by distinguishing them from healthy cells and tissue. Detection of the invaders is a constant challenge, as pathogens evolve, adapting to avoid the immune system and infect the host.

As part of the complex response, the immune system adapts to recognise specific pathogens. This adaptation process is known as 'adaptive or acquired immunity' and creates a memory of the pathogen, which provides an automatic response to new encounters with that same pathogen.

An immune system that is not functioning properly suffers recurring infections and chronic ill health. The immune deficiency can be due to a poor diet, a genetic disorder, or purposely suppressed by drugs – for example, organ

transplant patients need a suppressed immune system to avoid rejection of the implanted organ. In contrast, auto-immune disease is the result of an overactive immune system turning on healthy cells, believing them to be invaders, for example rheumatoid arthritis, lupus, MS and thyroid disorders.

Except for cases where genetic disorders and drug suppression are involved, the immune system's ability to function correctly is dependent on the quality of nutrients eaten and absorbed. A diet high in refined highly processed foods will not supply the body with the nutrients it requires to function, resulting in an impaired immune system that can not recognise and fight invasion. In many cases, chronic disease is the result of a long term under-functioning immune system caused by poor nutrition.