

Gulf War syndrome caused by Iraqi nerve gas

New research on laboratory animals suggests that the nerve gas Sarin may be responsible for Gulf War syndrome. The Pentagon has identified 130,000 troops who could have been exposed to low levels of Sarin when a weapons depot in southern Iraq was destroyed during the 1991 Gulf War

Nerve gas action: The nervous system relies on transmission of signals through nerve junctions called ***synapses***

Normal synaptic activity

Electrical impulse

Presynaptic nerve cell

Enzyme breaks ***ACh*** down to free up receptor site – preventing over-stimulation

Impulse triggers release of chemical neurotransmitter, ***acetylcholine (ACh)***

Receptor molecules

Post-synaptic cell

ACh attaches to receptor molecule, stimulating cell to fire off impulses

Effect of Sarin

Sarin gas molecules block enzyme release sites, preventing breakdown of ***ACh*** at receptor

Receptor continually fires off impulses as victim rapidly loses control of vital functions

Symptoms: Sarin acts particularly on peripheral and autonomic nervous system

- 1 Cognitive skills, memory
- 2 Muscle control, balance
- 3 Immune system
- 4 Bowels

Gulf War veterans have reported symptoms such as memory loss, migraines, diarrhoea, loss of muscle control and chronic fatigue