

# Biological treatments

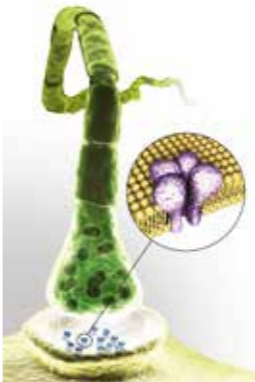


**Box 1 Depression and the brain**

In normal brains, neurotransmitters are constantly being released from nerve endings (at a synapse). To terminate their action, neurotransmitters are re-absorbed into the nerve endings or broken down by enzymes. Depression may be due to insufficient levels of the neurotransmitter serotonin being produced in the nerve endings. Anti-depressant drugs work by either blocking the enzymes that breakdown neurotransmitters or preventing their re-absorption into nerve endings.

**Box 2 The role of GABA**

GABA is a neurotransmitter that is the body's natural form of anxiety relief. When released, GABA has a quieting effect on many neurons in the brain. Around 40% of neurons respond to GABA. GABA locks into special receptors in the neuron. This opens a channel which allows the flow of chloride ions into the neuron. It is these chloride ions which make it harder for the neuron to be stimulated, slowing down its activity and increasing the sense of relaxation.



Synapse and close up of GABA receptor

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