

Selective Serotonin Re-uptake Inhibitors (SSRIs)

These are a widely used group of antidepressants, which includes such drugs as fluoxetine (Prozac) and paroxetine (Seroxat).

USES

SSRIs are mostly used for treatment of depression, but individual members of the group have other, specialised uses eg anxiety, panic disorder, obsessive compulsive disorder, eating disorders, and social phobia.

SSRIs only work after they have built up in your system, and thus need to be taken regularly, and will start to have their effects after two weeks or more.

HOW THEY WORK

The brain is made up of millions of interconnected brain cells (neurons). Messages travel along these cells rather like electricity down a wire, but when the message reaches the end of the neuron, it has to jump the gap (synapse) to the next cell or group of cells.

This is achieved by the neuron releasing tiny amounts of a chemical (neurotransmitter) into the gap between the nerve cells.

The receiving neuron has many places on its surface which act rather like locks, for which the appropriate neurotransmitter is the key. These are called receptors. When enough of the neurotransmitter has locked on to these receptors, a nerve impulse is started in the new nerve, and thus the message gets from one nerve to the next.

In order to allow the nerve to recover and receive the next message, and in order to replenish stocks of the neurotransmitter in the original neuron, ready to send the next message, the body has a clever way of removing the neurotransmitter from the receptors, and allowing it to be taken back into the originating nerve (re-uptake).

In depression certain neurotransmitters are relatively lacking. One of those is *serotonin*, also known as 5-hydroxytryptamine or 5-HT. The SSRIs slow down the process of returning the serotonin to the end of the neuron it comes from. This leads to the chemical remaining in the vicinity of the receptors for longer, making it more likely that enough will build up to set off the impulse in the next neuron.

Thus, the SSRIs work by allowing the body to make the best use of the reduced amounts of serotonin that it has at the time. In due course, the levels of natural serotonin will rise again, and the SSRI can be reduced and withdrawn.