**Antidepressants**

**What are antidepressants?**

Antidepressants work by balancing brain neurotransmitters level to ease depression. Generally speaking, it takes about 2 weeks for the drugs to start working and about 6-9 months for the whole therapy, or depend on the severity of illness as some people will need to take them longer.

**Classification of antidepressants**

1) Tricyclic antidepressants (TCAs)
2) Tetracyclic antidepressants
3) Selective serotonin re-uptake inhibitors (SSRIs)
4) Serotonin and norepinephrine re-uptake inhibitors (SNRIs)
5) Serotonin receptor modulators (SRMs)
6) Monoamine oxidase inhibitors (MAOIs)
7) Lithium Salts

**Indications**

Mainly relieve the symptoms of depression or bipolar disorder such as depressed mood, worthlessness, lack of motivation or concentration. Antidepressants are also used for anxiety disorder, phobic disorder (such as social phobia or agoraphobia), panic attack, obsessive-compulsive disorder, bulimia nervosa, nocturnal enuresis, chronic pain, neuropathic pain and post-traumatic stress disorder.

**What is the mechanism of action of antidepressants?**

According to the monoamine hypothesis of depression postulates a deficiency in serotonin or norepinephrine neurotransmission in the brain. Most of the currently used antidepressants work by slowing the removal of both
norepinephrine and serotonin from the brain, thus increasing the availability of these neurotransmitters. As a result, they are efficacious for patients whose depression is caused by the imbalance of either norepinephrine or serotonin.

**What are the side effects?**

Side effects of different antidepressants are as follows:

1) **Tricyclic & tetracyclic antidepressants**: Dizziness, headache, sweating, tremor, somnolence, palpitation, dry mouth, constipation, blurred vision, difficulty passing urine, and orthostatic hypotension. Other less-common adverse effects include seizure, liver dysfunction, ECG changes and abnormal blood count.

2) **SSRIs**: Nausea, vomiting, gastrointestinal discomfort, somnolence, dry mouth, tremor, headache, sweating, sexual dysfunction and weight loss, etc. Occasionally, some patients may experience excitement, anxiety, insomnia, restlessness or seizure.

3) **SNRIs**: Similar to SSRIs. May cause hypertension at high doses.

4) **SRMs**: Somnolence, tremor, headache, constipation, weight gain and hypotension. Some patients may develop seizure, abnormal liver function tests and blood disorder, etc.

5) **MAOIs**: Dizziness, headache, nervousness, gastrointestinal disturbance, etc. May interact with tyramine-rich food or drinks, as a consequence inducing sweating, vomiting and hypertensive crisis. E.g. pigeon, alcoholic beverages, cheese, chicken and beef liver, chocolate or cheese, etc.

6) **Lithium salts**: Bitter taste, dry mouth, tremor, polyuria, fatigue and weight gain. Other less-common side effects include hyperthyroidism, hypothyroidism, ECG changes, raised anti-diuretic hormone concentrations, renal failure or leucocytosis.

**Names of the commonly-used antidepressants**

1) **TCAs**: Amitriptyline, Imipramine, Clomipramine, Nortriptyline, Desipramine, Dothiepin, Doxepin, Trimipramine, Melitracen.

2) **Tetracyclic antidepressants**: Mianserin, Maprotiline.
3) SSRIs: Fluoxetine, Paroxetine, Sertraline, Fluvoxamine, Citalopram, Escitalopram.
4) SNRIs: Venlafaxine/ Venlafaxine XR, Duloxetine.
5) SRMs: Mirtazapine.
6) MAOIs: Moclobemide, Phenelzine, Isocarboxazid, Tranylcypromine.
7) Lithium salts: Lithium carbonate.

Cautions when taking antidepressants

1) Patients with or have a history of suicidal behavior should avoid taking SSRIs.
2) Do not expect the antidepressants to work right away. It usually takes about 2 to 3 weeks for the antidepressants to start working.
3) To avoid side effects. Do not drink alcohol when taking these medications.

FAQ

1) May I stop taking my medicine?
   It is necessary to take your medicine promptly in order to control your illness. According to scientific research, the rates of relapse increase drastically if one is not taking their medications. If you disregard your condition, your chance of recovery would be lessened.

2) What to do before taking my medication?
   Before taking your medication, you must always ensure the medicine belongs to you, always follow your doctor’s instructions, and those on the pharmacy label. You should never change the prescribed dosage or stop your medication without your doctor’s direction. And never take two doses at the same time if you forget to take a dose.

3) How to deal with side effects?
   Talk to your doctor if you experience any side effects. Your doctor may adjust the dosage in order to minimize the adverse effects. Do not stop taking your medicine without your doctor’s direction.
4) How long do I need to take my medicine? The duration of therapy varies according to the types and severities of illness. Generally speaking, patients with schizophrenia, particularly those with a history of relapse, need to take their medications for a longer period of time. But if your condition is stable, your doctor may adjust the dosage to the minimal-effective dose to control your illness.

5) What should the care-givers do if patients refuse to take their medications? Do not criticize the patients. Try to find out the underlying reason for their refusal e.g. if the patients experience any undesirable side effects or have any necessary concern about their medications, etc. Encouragement from the family and comprehensive explanation of their drug treatment is crucial. Contact the healthcare professionals if the patients still refuse to take the medications.

**DO’s**

1) Follow your doctor’s direction.
2) Pay attention to the dosage, usage, precaution and side effects of your medications.
3) Read the prescription label carefully.
4) Understand the method of administration.
5) Store your medication properly.
6) Take your medication at the same time of day.
7) Complete the prescribed course unless otherwise directed.

**DON'Ts**

1) Change the dosage of your medication on your own.
2) Stop taking your medication except on your doctor's advice.
3) Drink alcohol with your medication.
4) Put your medication in other bottle.
5) Mix 2 medications in one bottle.
6) Take other medication unless directed by your doctor.