Strattera (atomoxetine) is the first in a new class of nonstimulant medications to be approved for the treatment of attention-deficit/hyperactivity disorder (ADHD). Its mode of action is unlike that of the stimulants, methylphenidate and amphetamines. Strattera therefore appears to have little or no abuse potential. Strattera's mechanism of action is to inhibit the reuptake of the neurotransmitter norepinephrine. Consequently, it is called a selective norepinephrine reuptake inhibitor.

An explanation of the process of neurotransmission may provide some understanding of how Strattera works. During neurotransmission, neurotransmitters are released by one neuron into the space between that neuron and the next neuron. The neurotransmitters come into contact with specific sites on the surface membrane of neurons called receptors. From there, the chemical is transformed into an electrical impulse that travels down the neuron, causing further release of neurotransmitters. This process of neurotransmission is repeated along a chain of neurons. During neurotransmission, after neurotransmitters are released and the chemical signal is transferred to neurons, the neurotransmitters are recaptured back into brain cells by a process known as reuptake. By blocking the reuptake of neurotransmitters into the neurons from which they were released, the medication can amplify the effects of the neurotransmitter.

Through reuptake inhibition, Strattera boosts norepinephrine neurotransmission. Studies of patients with ADHD suggest that abnormal function of the norepinephrine and dopamine (another type of neurotransmitter) systems may in part be responsible for the inattention and hyperactivity problems seen with the disorder. ADHD and other mental disorders such as depression may be the result of abnormally low levels (or the abnormal neurotransmission) of neurotransmitters. The altered levels of the neurotransmitter may then cause changes in certain areas of the brain, which may produce the clinical signs and symptoms of a mental disorder such as ADHD, depression, or generalized anxiety disorder. When neurotransmission is improved by the medication, the affected areas of the brain are restored to normal functioning, reducing the symptoms of the illness.
Dosing Information

The starting dosage for adults is 40 mg taken as a single dose in the morning. After a minimum interval of 3 days, the dosage may be doubled to 80 mg/day, administered as a single morning dose or in evenly divided doses in the morning and afternoon or early evening. The patient should be given a trial of 2–4 weeks at that dosage before any further increase. If the response is not adequate, the dosage may be increased to a maximum of 100 mg/day administered in morning and afternoon doses.

Common Side Effects

The common side effects from Strattera include jitteriness, nausea, sleepiness, nervousness, dizziness, headaches, decrease appetite, and insomnia. Side effects generally occur shortly after starting the medication or when increasing the dosage. If side effects become intolerable, the physician may decrease the dosage to allow the individual to adjust to the medication before increasing it again slowly. Strattera may cause urinary retention in some individuals.

Adverse Reactions and Precautions

Some patients taking normal dosages of Strattera may develop mild elevation of blood pressure (hypertension). At higher dosages, the incidence of Strattera-induced hypertension may be greater. The increase in blood pressure is usually modest, and very few patients have to discontinue Strattera because of hypertension. Generally, lowering the dosage will normalize blood pressure. For this reason, the patient's blood pressure should be checked before starting Strattera and routinely during therapy, especially for individuals with pre-existing hypertension or those with a history of heart disease.

Strattera may cause drowsiness and sedation and impair physical coordination and mental alertness. Patients should avoid potentially dangerous activities, such as driving a car or operating machinery, until they are sure that these side effects will not affect their ability to perform these tasks.

Pregnancy and Breastfeeding: Pregnancy Category C

Strattera has not been tested in women to determine its safety in pregnancy. The effects of the medication on the developing fetus in pregnant women are unknown. Women who are pregnant or may become pregnant should discuss this with their physician.

Nursing mothers should not take Strattera, because small amounts will pass into breast milk and be ingested by the baby. If stopping Strattera is not an alternative, breastfeeding should not be started or should be discontinued.

Possible Drug Interactions

Strattera, like many other medications, is metabolized in the liver. The combined use of Strattera with certain other medications may result in adverse interactions because one medication may alter the blood levels of the other. Strattera should not be taken with antidepressants known as monoamine oxidase inhibitors, because
the combination may trigger dangerously elevated blood pressure. This and other significant drug interactions reported with Strattera are summarized in the table below.

<table>
<thead>
<tr>
<th>Strattera (atomoxetine)</th>
<th>Ventolin (albuterol)</th>
<th>Strattera may increase the cardiovascular effects of Ventolin inhalers and inhalant solutions, including palpitations, rapid heart rate, and increased blood pressure.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prozac (fluoxetine), Paxil (paroxetine), Tagamet (cimetidine), Wellbutrin (bupropion), Norvir (ritonavir)</td>
<td>These medications when combined with Strattera may inhibit its metabolism and increase the blood levels of Strattera, potentially increasing adverse side effects. Use of any of these medications may require lower dosages of Strattera.</td>
<td></td>
</tr>
<tr>
<td>Monoamine oxidase inhibitors Nardil (phenelzine), Marplan (isocarboxazid), and Parnate (phenelzine)</td>
<td>Monoamine oxidase inhibitors should not be combined with Strattera. The combination may dangerously increase blood pressure.</td>
<td></td>
</tr>
</tbody>
</table>

Patients taking Strattera should avoid alcohol or consume it only in moderation.

**Overdose**

The effects of Strattera overdose are not fully known, because this medication was only recently introduced and clinical experience is limited. It is probably less dangerous in overdose than tricyclic and monoamine oxidase inhibitor antidepressants.

Any suspected overdose should be treated as an emergency. The person should be taken to the emergency department for observation and treatment. The prescription bottle of medication (and any other medication suspected in the overdose) should be brought as well, because the information on the prescription label can be helpful to the treating physician in determining the number of pills ingested.

**Special Considerations**

- If you miss a dose, take it as soon as possible, within 2–3 hours of the scheduled dosing. If it is close to your next scheduled dose, skip the missed dose and continue on your regular dosing schedule, but do not take double doses.
- Strattera may cause dizziness. Until you are certain that the medication does not affect your coordination, it is best to avoid driving and operating machinery.
- Do not take Strattera if you have a known allergy to it, or if you experienced a severe reaction after taking it.
- Strattera may be taken with food to decrease any gastrointestinal side effects.
- If Strattera is taken in divided doses, take the medication early in the morning and afternoon or early evening. Do not take the medication close to bedtime because it can interfere with sleep.
- Store the medication in its originally labeled, light-resistant container, away from heat and moisture. Heat and moisture may precipitate breakdown of the medication.
- Keep your medication out of reach of children.

*If you have any questions about your medication, consult your physician or pharmacist.*