Serotonin Syndrome

What is Serotonin Syndrome? Serotonin syndrome is a potentially life threatening reaction that occurs when you take medications that cause the body to have too much serotonin. Serotonin is a chemical your body produces that’s needed for your nerve cells and brain to function. But too much serotonin causes symptoms that can range from mild (shivering and diarrhea) to severe (muscle rigidity, fever and seizures). Severe serotonin syndrome can be fatal if not treated.

What causes Serotonin Syndrome? Serotonin syndrome occurs when you take medications that cause high levels of the chemical serotonin to accumulate in your body. Although it’s possible that taking just one drug that increases serotonin levels can cause serotonin syndrome in susceptible individuals, this condition occurs most often when you combine certain medication. Serotonin syndrome is most likely to occur when you first increase the dose of such a drug or add a new drug to your regimen. The most common prescription drug classes that are associated with serotonin syndrome include antidepressants, anti-migraine medications, and pain medications. The FDA recently asked the manufacturers of these types of drugs to include warning labels on their products that tell you about the potential risk of serotonin syndrome. If you have questions regarding the medications that you are taking, please contact your pharmacist or health care provider.

Certain illegal drugs, such as LSD, cocaine, amphetamines, ecstasy, and dietary supplements, such as St. John’s Wort, ginsing, and nutmeg, also are associated with serotonin syndrome.

What are the symptoms of Serotonin Syndrome? Symptoms occur within minutes to hours of taking a new drug or increasing the dose of a drug you are already taking, and may include:

- Agitation or restlessness
- Confusion
- Fast heart beat and high blood pressure
- Dilated pupils
- Hallucinations
- Loss of coordination or twitching muscles
- Muscle rigidity
- Heavy sweating
- Shivering or goose bumps
- Nausea
- Diarrhea
- Vomiting

Severe serotonin syndrome can be life-threatening. Signs and symptoms include:

- High fever
- Seizures
- Irregular heartbeat
- Unconsciousness
When should I contact a health care provider? If you suspect you might have Serotonin Syndrome after starting a new drug or increasing the dose of a drug you are already taking, call your health care provider. If you have severe or rapidly worsening symptoms, seek emergency care immediately. If left untreated, severe serotonin syndrome can lead to unconsciousness and even death.

How is Serotonin Syndrome Diagnosed? The diagnosis is usually made by asking questions about your medical history, including the types of drugs you take. No single test can confirm a serotonin syndrome diagnosis. Your health care provider will diagnose the condition by ruling out other possibilities, including infections, intoxications, metabolic and hormone problems, and drug overdose or drug withdrawal.

Tests to rule out other causes of your symptoms may include blood and urine tests or radiological exams including chest X-ray or computerized tomography.

How Is Serotonin Syndrome treated? Treatment for Serotonin Syndrome depends on the severity of the symptoms. If your symptoms are minor, a visit to your health care provider and stopping the medication causing the problem may be enough. Milder forms usually go away within 24 to 72 hours of stopping medications that increase serotonin. If you have symptoms that concern your health care provider, you may need to go to the hospital for further evaluation and supportive treatment.

How to I prevent Serotonin Syndrome? Always tell all of your healthcare providers what medicines you take.