
CENTRAL PA HEALTH CARE QUALITY UNIT NEWSLETTER FOR HEALTHY OUTCOMES

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WHY DISINFECT/SANITIZE?

From Chlorox.com

You can't see germs, but if the flu is any indicator, it's easy to see how bacteria and viruses can make the rounds in a family. Faucet handles, sponges, and hand towels in the kitchen and bathroom become instant "germ transfer" stations.

By taking aim at the hot spots with a disinfectant, you help kill germs involved in the cycle of transmission.

Make sure you're using a disinfectant. Because contrary to popular opinion, so-called "natural" cleaners like lemon juice, baking soda, and vinegar are not effective against a harmful bacteria or viruses.

Germs are passed around when infected objects come in contact with a surface. If the surface is not disinfected, the next time it is touched, germs can be transmitted around the house.

A study conducted by the University of Arizona's Charles P. Gerba, Ph.D., and team found that disinfecting household bleach and bleach-based cleaning products are one of the most effective ways to disinfect surfaces in the kitchen and the bathroom. By properly using the right products (products registered by the EPA) to clean and disinfect, you'll eliminate 99.9% of germs.

Just because a surface looks clean, doesn't mean that germs are gone. In fact, the University of Arizona study also found that "anti-bacterial" household cleaning products like certain dish detergents and hand soaps cannot actually disinfect surfaces. And the numbers they found were staggering:

- 300 germs per square centimeter on kitchen countertops.
- 10,000 per square centimeter on bathroom faucets.
- And a whopping 100 million per square centimeter on sponges and dishcloths!

But don't let the numbers scare you. Winning the fight is as simple as knowing what products to use. So consider the following germ-killing table to help in your landslide victory:

Germ Defense Pyramid



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The information offered in this newsletter is to increase your awareness of health related conditions and situations and not intended to be a substitute for professional medical advice.

Bipolar Disorder (Manic-Depressive Illness)

FromMerckSource.com

Causes

Hereditary is thought to be involved in the development of bipolar disorder. Abnormal levels of certain substances the body produces, such as the neurotransmitters nor epinephrine or serotonin, may be involved. (Neurotransmitters are substances that nerve cells use to communicate.) Bipolar disorder sometimes begins after a stressful event, or such an event triggers another episode. However, no cause-and-effect relationship has been proved. The symptoms of bipolar disorder—depression and mania—can occur in certain disorders, such as high levels of thyroid hormone (hyperthyroidism).

Symptoms

In bipolar disorder, episodes of symptoms alternate with virtually symptom-free periods (remissions). Episodes of symptoms can last anywhere from a few weeks to 3 to 6 months. **Cycles**—time from onset of one episode to that of the next—vary in length. Some people have infrequent episodes, perhaps only a few over a lifetime, whereas others have four or more episodes each year (called rapid cycling). Despite this large variation, the cycle time for each person is relatively consistent. Episodes consist of depression, mania, or less severe mania (hypomania). Only a minority of people alternate back and forth between mania and depression with each cycle. In most, one or the other predominates to some extent.

Depression: Depression in bipolar disorder resembles depression that occurs alone. People feel excessively sad and lose interest in their activities. They think and move slowly and may sleep more than usual. They may be overwhelmed with feelings of hopelessness and guilt.

Mania: Episodes of mania end more abruptly than those of depression and are typically shorter, lasting a week or longer. People feel exuberant, energetic, and elated or irritable. They may also feel overly confident, act or dress extravagantly, sleep little, and talk more than usual and their thoughts race. They are easily distracted and constantly shift from one theme or endeavor to another. They pursue one activity after another, without thinking about the consequences (such as loss of money or injury). However, people tend to think that they are in their best mental state. Some people have hallucinations, hearing and seeing things that are not there.

Manic psychosis is an extreme form of mania. People have psychotic symptoms that resemble schizophrenia. They may have extremely grandiose delusions, such as of being Jesus. Others may feel persecuted, such as being pursued by the FBI. Activity level increases markedly; patients may race about and scream, swear, or sing. Mental and physical activity may be so frenzied that there is a complete loss of coherent thinking and behavior, causing extreme exhaustion. People so affected require immediate treatment.

Hypomania: Hypomania is not as severe as mania. People feel cheerful, need little sleep, and are mentally and physically active. For some people, hypomania is a productive time. They have a lot of energy, feel creative and confident, and often function well in social situations. However, people in this mental state often make commitments that they cannot keep or start projects that they do not finish. They are easily distracted and easily irritated, sometimes resulting in angry outbursts. They rapidly change moods. People with hypomania may recognize such effects and be bothered by them, as are the people around them.

Mixed Episodes: When depression and mania or hypomania occurs in one episode, people may momentarily become tearful in the middle of elation, or their thoughts may start racing in the middle of depression. Often, people go to bed depressed and wake early in the morning and feel elated and energetic. At least one of three people with bipolar disorder have mixed episodes.

Diagnosis

The diagnosis is based on the distinctive pattern of symptoms. However, people with mania may not accurately report their symptoms because they do not think anything is wrong with them therefore doctors often have to obtain information from family members. Doctors also ask people whether they have any thoughts about suicide. Doctors review the drugs being taken to check whether any could contribute to the symptoms. Doctors may also check for signs of other disorders that may be contributing to symptoms. For example, they may do blood tests to check for hyperthyroidism. Doctors determine whether people are experiencing an episode of mania or depression so that the correct treatment can be given.

Treatment

For severe mania or depression, hospitalization is often required. For less severe mania, hospitalization may be needed during periods of overactivity to protect people and their family members from disastrous financial activities or sexual behavior. Most people with hypomania can be treated as outpatients. People with rapid cycling are more difficult to treat. Without treatment, bipolar disorder recurs in almost all people. Treatment may include drugs to stabilize mood (mood stabilizers, such as lithium and some anticonvulsants), antipsychotic drugs, and certain antidepressants, as well as psychotherapy. Electroconvulsive therapy is sometimes used when mood stabilizers do not relieve depression. Phototherapy may be used when moods are related to the seasons.

Lithium: Lithium can lessen the symptoms of mania and depression. Lithium helps prevent mood swings in many people. Because lithium takes 4 to 10 days to work, a drug that works more rapidly, such as an anticonvulsant or a newer (second-generation) antipsychotic drug is often given to control excited thought and activity. Lithium can have side effects. It can cause tremors, muscle twitching, nausea, vomiting, diarrhea, thirst, excessive urination, and weight gain. It often worsens a person's acne or psoriasis. However, these side effects are usually temporary and are often lessened or relieved when doctors adjust the dose. Sometimes lithium must be stopped because of side effects, which then resolve. Doctors monitor the level of lithium in the blood with regular blood tests because if levels are too high, side effects are more likely. Long-term use of lithium can cause hypothyroidism and rarely can impair kidney function. Therefore, thyroid and kidney function must be monitored with regular blood tests. A very high level of lithium in the blood can cause persistent headaches, mental confusion, drowsiness, seizures, and abnormal heart rhythms. Side effects are more likely to occur in older people and people with impaired kidney function. Women who are trying to become pregnant must stop taking lithium because rarely, lithium can cause heart defects in a developing fetus.

Anticonvulsants: The anticonvulsants carbamazepine, oxcarbazepine, and valproate may be used to treat mania when it first occurs or to treat mania and depression when they occur together (mixed state). Unlike lithium, these drugs do not damage the kidneys. However, carbamazepine can greatly reduce the number of red and white blood cells. Rarely, valproate damages the liver (primarily in children) or severely damages the pancreas. With close monitoring by a doctor, these problems can be caught in time. Carbamazepine and valproate can be useful, especially when people have not responded to other treatments. Oxcarbazepine has fewer side effects.

Antipsychotics: Sudden manic episodes are increasingly treated with second-generation antipsychotics because they act quickly and the risk of serious side effects is less than that with other drugs used to treat bipolar disorder. These drugs include aripiprazole, olanzapine, quetiapine, risperidone, and ziprasidone. Long-term side effects may include weight gain and the metabolic syndrome. Metabolic syndrome is excess fat in the abdomen with reduced sensitivity to insulin's effects (insulin resistance), a high blood sugar level, abnormal cholesterol levels, and high blood pressure. The risk of this syndrome may be lower with aripiprazole and ziprasidone.

Antidepressants: All antidepressants can cause swings from depression to hypomania or mania, sometimes rapidly. Therefore, these drugs are used only for short periods and usually are given along with a mood-stabilizing drug. Their effect on mood is closely monitored. At the first sign of a swing to hypomania or mania, the antidepressant is stopped.

Psychotherapy: Psychotherapy is often recommended for people taking mood-stabilizing drugs, mostly to help them take their treatment as directed. Group therapy often helps people and their partners or relatives understand bipolar disorder and its effects. Individual psychotherapy may help people learn how to better cope with problems of daily living.

Education: Learning about the effects of the drugs used to treat the disorder can help people take them as directed. People may resist taking the drugs because they believe that these drugs make them less alert and creative. However, decreased creativity is relatively uncommon because mood stabilizers usually enable people to function better at work and school and in relationships and artistic pursuits.



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Careful Antipsychotic Drug Monitoring Urged

Drugs Used to Treat Mental Illnesses May Increase Heart Disease Risks

People who take antipsychotic drugs to treat a wide range of mental illnesses may suffer from potentially rapid weight gain that could put them at risk for diabetes, high cholesterol, and heart disease.

Researchers say use of these drugs, known as second-generation antipsychotics, has soared in recent years for the treatment of a variety of mental illnesses, such as schizophrenia, bipolar disorder, major depression, autism, and dementia.

For those who respond well to these drugs, they can mean the difference between leading a fulfilling life and being severely disabled. But researchers say use of these drugs has also been associated with dramatic weight gain, diabetes, and unhealthy cholesterol levels. Because of those risks, experts are now calling for more careful screening and monitoring of the use of antipsychotic drugs, including:

- Clozaril
- Risperdal
- Zyprexa
- Seroquel
- Geodon
- Abilify

A joint panel of the American Diabetes Association, American Psychiatric Association, American Association of Clinical Endocrinologists, and the North American Association issued the recommendations for the Study of Obesity. The findings appear in an issue of *Diabetes Care*.

The panel says, "there is considerable evidence" that treatment with antipsychotic drugs can cause rapid weight gain, and most of the weight gained is fat. Research also suggests that use of antipsychotic drugs can lead to the development of pre-diabetes, diabetes, and elevated cholesterol levels. In some cases, researchers say use of these drugs has also been linked to a life-threatening condition known as diabetic ketoacidosis.

In light of those risks, the panel recommends that doctors prescribing antipsychotic drugs pre-screen their patients for heart disease risk factors, including:

- Personal and family history of obesity, diabetes, high cholesterol, high blood pressure, and heart disease
- Weight and height
- Waist circumference
- Blood pressure
- Fasting blood glucose levels
- Fasting cholesterol and triglyceride levels

The recommendations also call for frequent monitoring of these risk factors among people receiving antipsychotic drug therapy. The panel says antipsychotic drug users should be referred to specialists if they experience problems with significant weight gain, diabetes, or other heart disease risk factors. Finally, the guidelines advise that overweight or obese people prescribed an antipsychotic drug should also receive counseling about proper nutrition and physical activity levels. Researchers say the risks associated with various antipsychotic drugs vary, and more study is needed to better define those risks.

SOURCE: American Diabetes Association, *Diabetes Care*, February 2004; vol 27: pp 596-601.