



Down But Not Out

The link between depression and diabetes | *By Erika Gebel, PhD*

IT'S HARD TO IMAGINE what could be worse than an affliction that takes the joy out of living, and yet depression is achingly common, affecting 1 in 6 American adults. The rate is even higher among people with diabetes.

Recent research has discovered that diabetes may serve as both a trigger and a consequence of depression, a destructive cycle that isn't fully understood. Other studies have found that people who are depressed are less likely to take good care of themselves, which can lead to worsening blood glucose control and diabetes complications like diseases of the heart, kidneys, eyes, and nerves. This is why it is so important to be able to recognize the symptoms of depression (sidebar, p. 31) and seek help when it's needed.

Sad's Story

Depression—otherwise known as clinical depression, major depressive disorder, or major depression—is much more than just a funk or a bad day. It is a chronic disease, like diabetes,

and long-term treatment is often needed. The exact cause of depression hasn't been entirely worked out, though it's likely that genetics, life experiences, and brain abnormalities all play a role.

Certain characteristics are more common in people with depression. Having diabetes, or any chronic illness, puts someone at a higher risk for depression. People with a family history of depression or who have had traumatic life experiences are also more susceptible. Women are more likely to develop depression than men, particularly in the year after giving birth (gestational or preexisting diabetes in pregnancy increases this risk further).

Emotional and physical problems can stem from depression, severely damaging quality of life. People with depression, in addition to feeling sad, anxious, or isolated, are more likely to abuse drugs and alcohol, perform poorly at school or work, and fight with loved ones. Some may even conclude that life isn't worth living, making suicide a real danger. Anxiety disorders, such as post-traumatic

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stress disorder, and depression can sometimes coexist. Depression may take a real physical toll, too. In addition to its association with diabetes, depression has also been linked to heart disease, stroke, HIV/AIDS, cancer, and Parkinson's disease.

Double Trouble

Diabetes and depression are in cahoots, but the nature of their relationship remains the subject of scientific inquiry. Many, but not all, researchers agree that depression boosts the risk for type 2 diabetes to some degree. There are several potential reasons behind the connection. Lifestyle issues may be at play; depression may cause increases in appetite and decreases in physical activity that lead to being overweight or obese, which may in turn promote diabetes. Another theory places the blame on inflammation in the body, which can be caused by emotional distress and may also lay the groundwork for diabetes. Others suspect that changes in the brain are the bond between the diseases.

Researchers have tried to explain the observation that diabetes instigates depression, perhaps doubling risk, in a few ways. A 2008 study in the *Journal of the American Medical Association* found that people with type 2 diabetes were at increased risk of depression, but only if they treated their diabetes with oral medication, insulin, or both. Those with untreated type 2 or prediabetes were not at an increased risk for depression, suggesting that the stress of treating a chronic disease may set a person up for depression. Another study showed that depressive symptoms worsen with increasing blood glucose levels, which could mean that the physical effects of diabetes are behind depression.

Then again, depression may make diabetes harder to treat and manage, leading to higher blood glucose levels and poorer health. A 2008 study in *Diabetes Care* analyzed 47 previous studies of people with type 1 or type 2 diabetes, and found that depression kept them from seeing their doctors, following a diet, and taking medication as directed.

Help Is Out There

The first step to treating depression is seeing your doctor, who may recommend being evaluated by a mental health professional, such as a therapist, counselor, psychologist, psychiatrist, or clinical social worker. The American Diabetes Association recommends that psychological assessments be a routine part of the medical management of diabetes. Diagnosis of depression usually involves a thorough evaluation, including questions about family history and symptoms.

The most common forms of treatment for depression are psychotherapy and medication. Psychotherapy, which involves talking with a therapist, is often prescribed for milder cases of depression. The therapist may try to teach a depressed person to think or behave differently, shutting down negative thoughts and actions. Another approach may be to help a person work through and improve relationships that may be contributing to depression.

For those with more severe forms of depression, psychotherapy may not be enough. A therapist may refer a patient to a medical doctor, like a psychiatrist, who can prescribe antidepressant medications. These drugs work by altering the chemistry in the brain to alleviate the symptoms of depression.

There are several different types of antidepressants, and it may take trial

What to Watch For

Symptoms of depression may include the following. Keep in mind that these symptoms and their severity can vary from person to person.

SLEEP

- ⊕ difficulty falling asleep (insomnia)
- ⊕ waking up at night and not being able to go back to sleep
- ⊕ excessive sleep or sleepiness

FEELINGS

- ⊕ sadness that does not go away after a day or two
- ⊕ overwhelming guilt
- ⊕ sadness that is worst in the morning
- ⊕ anxiety or nervousness
- ⊕ irritability

THOUGHTS

- ⊕ inability to concentrate, remember, or make decisions
- ⊕ suicidal thoughts or attempts
- ⊕ loss of interest in previously fun activities, including sex

BODY

- ⊕ increase or decrease in appetite
- ⊕ aches, pains, and digestive disturbances that don't respond to treatment
- ⊕ slowed speech or body movements
- ⊕ crying for no apparent reason

antidepressants are constipation, daytime sleepiness, diarrhea, dizziness, dry mouth, headache, nausea, sexual problems, shakiness, trouble sleeping, and weight gain. Side effects can go away within a few weeks or remain until the medication is discontinued. However, some medications are more likely to cause certain side effects than others. Since weight is a particularly important factor for people with type 2 diabetes, a doctor may be inclined to choose antidepressants that are less likely to cause weight gain.

Another important factor to consider is drug interactions. Doctors, psychiatrists, and pharmacists need to be in close contact so that treatments don't collide and create a dangerous health situation for a patient. Furthermore, patients must be up front about any medications and supplements they are taking. For example, an over-the-counter herbal supplement, St.-John's-wort, is sometimes used to alleviate depression but may be dangerous if used with certain drugs.

Something that people with diabetes, or anyone, can do to help themselves with depression is exercise. Many studies link physical activity to improved mood. And, of course, not only can exercise boost spirits, but it can also improve health in other ways.

Depression can make life with diabetes a harrowing experience. As scientists continue to research the link between these two diseases, there is reason for hope. Treatment for depression is just as effective in people with diabetes as in those without. Finding the right combination of medication, exercise, and therapy to defeat depression is not always easy or fast. But in most cases, a solution is out there that can help make each day a bit more joyful.

and error to find the one that works best for any particular patient. Only 6 out of 10 people will feel better with their first antidepressant. The most widely used antidepressants are SSRIs (selective serotonin reuptake inhibitors), such as fluoxetine (Prozac) and sertraline (Zoloft). These drugs work on the premise that depression is caused by a shortage of serotonin in the brain, an imbalance that SSRIs aim to fix. Different people

can have a variety of responses to each antidepressant, so it is difficult to predict how any particular medication will affect a person. A 2009 review in *Current Opinion in Psychiatry* found no evidence that any single treatment for depression leads to consistently better outcomes than any other in people with diabetes.

According to the Agency for Healthcare Research and Quality, the most common side effects of