Editorial note on depression in aged people.

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Editorial

Have you ever wondered what causes clinical depression? Perhaps you have been diagnosed with major depression, and that's made you question why some people get depressed but others don't. Depression is a complex disease. No one knows exactly what causes it, but it can happen for a variety of reasons. Some people have depression during a serious medical illness. Others may have depression with life changes such as a move or the death of a loved one. Still others have a family history of depression. Those who do may have depression and feel overwhelmed with sadness and loneliness for no known reason.

What are the main causes of depression?

Lots of things can increase the chance of depression, including the following:

- **Abuse:** Physical, sexual, or emotional abuse can make you more vulnerable to depression later in life.
- **Age:** People who are elderly are at higher risk of depression. That can be made worse by other factors, such as living alone and having a lack of social support.
- **Certain medications:** Some drugs, such as isotretinoin (used to treat acne), the antiviral drug interferon-alpha, and corticosteroids, can increase your risk of depression.
- **Conflict:** Depression in someone who has the biological vulnerability to it may result from personal conflicts or disputes with family members or friends.
- **Death or a loss:** Sadness or grief after the death or loss of a loved one, though natural, can increase the risk of depression.
- **Gender:** Women are about twice as likely as men to become depressed. No one's sure why. The hormonal changes that women go through at different times of their lives may play a role.
- **Genes:** A family history of depression may increase the risk. It's thought that depression is a complex trait, meaning there are probably many different genes that each exert small effects, rather than a single gene that contributes to disease risk. The genetics of depression, like most psychiatric disorders, are not as simple or straightforward as in purely genetic diseases such as Huntington's chorea or cystic fibrosis.
- **Major events:** Even good events such as starting a new job, graduating, or getting married can lead to depression. So can moving, losing a job or income, getting divorced, or retiring. However, the syndrome of clinical depression is never just a "normal" response to stressful life events.
- **Other personal problems:** Problems such as social isolation due to other mental illnesses or being cast out of a family or social group can contribute to the risk of developing clinical depression.
- **Serious illnesses:** Sometimes, depression happens along with a major illness or may be triggered by another medical condition.
- **Substance misuse:** Nearly 30% of people with substance misuse problems also have major or clinical depression. Even if drugs or alcohol temporarily make you feel better, they ultimately will aggravate depression.

How is biology related to depression?

Researchers have noted differences in the brains of people who have clinical depression compared with those who do not. For instance, the hippocampus, a small part of the brain that is vital to the storage of memories, appears to be smaller in some people with a history of depression than in those who've never been depressed. A smaller hippocampus has fewer serotonin receptors. Serotonin is one of many brain chemicals known as neurotransmitters that allow communication across circuits that connect the brain regions involved in processing emotions.

Scientists do not know why the hippocampus may be smaller in some people with depression. Some researchers have found that the stress hormone cortisol is produced in excess in depressed people. These investigators believe that cortisol has a toxic or "shrinking" effect on the development of the hippocampus. Some experts think depressed people may be simply born with a smaller hippocampus and are thus inclined to have depression. There are many other brain regions, and pathways between specific regions, thought to be involved with depression, and likely, no single brain structure or pathway fully accounts for clinical depression.

One thing is certain that depression is a complex illness with many contributing factors. The latest scans and studies of brain structure and function suggest that antidepressants can exert "neurotrophic effects," meaning that they can help sustain nerve cells, prevent them from dying, and allow them to form stronger connections that withstand biological stresses. As scientists gain a better understanding of the causes of depression, health professionals will be able to make better "tailored" diagnoses and, in turn, prescribe more effective treatment plans.

How is genetics linked to the risk of depression?

We know that depression can sometimes run in families. This suggests that there's at least a partial genetic link to depression. Children, siblings, and parents of people with severe depression are somewhat more likely to have depression than are members of the general population. Multiple genes interacting with one

another in special ways probably contribute to the various types of depression that run in families. Yet despite the evidence of a family link to depression, it is unlikely that there is a single "depression" gene, but rather, many genes that each contributes small effects toward depression when they interact with the environment.

Can certain drugs cause depression

In certain people, drugs may lead to depression. For example, medications such as barbiturates, benzodiazepines, and the acne drug isotretinoin (formerly sold as Accutane, now Absorica, Amnesteem, Claravis, Myorisan, Zenatane) have sometimes been linked with depression, especially in older people. Likewise, medications such as corticosteroids, opioids (codeine, morphine), and anticholinergics taken to relieve stomach cramping can sometimes cause changes and fluctuations in mood. Even blood pressure medications called beta-blockers have been linked to depression.

What's the link between depression and chronic illness?

In some people, a chronic illness causes depression. A chronic illness is an illness that lasts for a very long time and usually cannot be cured completely. However, chronic illnesses can often be controlled through diet, exercise, lifestyle habits, and certain medications. Some examples of chronic illnesses that may cause depression are diabetes, heart disease, arthritis, kidney disease, HIV and AIDS, lupus, and multiple sclerosis (MS). Hypothyroidism may also lead to depressed feelings. Researchers believe that treating the depression may sometimes also help the co-existing medical illness improve.

Is depression linked to chronic pain?

When pain lingers for weeks to months, it's called "chronic." Not only does chronic pain hurt, it disturbs your sleep, your ability to exercise and be active, your relationships, and your productivity at work. Can you see how chronic pain may also leave you feeling sad, isolated, and depressed?

There is help for chronic pain and depression. A multifaceted program of medicine, psychotherapy, support groups, and more can help you manage your pain, ease your depression, and get your life back on track.

Does depression often occur with grief?

Grief is a common, normal response to loss. Losses that may lead to grief include the death or separation of a loved one, loss of a job, death or loss of a beloved pet, or any number of other changes in life, such as divorce, becoming an "empty nester," or retirement.

Anyone can experience grief and loss, but not everyone will experience clinical depression, which differs from grief in that depression involves a range of other symptoms such as feelings of low self-worth, negative thoughts about the future, and suicide, whereas grief involves feelings of emptiness, loss and longing for a loved one, with an intact capacity to feel pleasure. Each person is unique in how they cope with these feelings.

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