

Differentiating CFS from Depression

Though chronic fatigue syndrome and depression share some symptoms, the two disorders are worlds apart. Understanding the differences leads to more effective treatment.



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At first glance, CFS—also known as chronic fatigue and immune dysfunction syndrome (CFIDS) and myalgic encephalomyelitis (ME)—and depression have much in common. The three cardinal symptoms of CFS—fatigue, memory problems, and sleep disruption—are three common symptoms of depression as well. But the astute physician who delves more deeply into the history and physical examination will soon discover that the two disorders are very different.

People with depression tend to be withdrawn and without a sense of hope, while people with CFS are more typically proactive about seeking medical treatment. They are hopeful for recovery, and many join support groups, lobby politicians for greater research funding and otherwise

strive for improved quality of life—activities that are generally uncommon in depressed individuals.

Mistakenly attributing the symptoms of CFS to depression wastes valuable treatment time, leads to unnecessary medications and potentially drives the patient—who is certain that it's an organic problem and not a psychiatric one—to distrust the medical profession and seek alternate care. For the patient, such alternate care can be expensive, unhelpful and sometimes even dangerous. Yet all of the waste and potential harm can be avoided by understanding how to distinguish CFS from depression.

The Differences

The onset and symptoms of CFS differ significantly

There are distinct differences between CFS and depression. Mistakenly attributing the symptoms of CFS to depression wastes valuable treatment time and can lead to gratuitous medications.

from depression. First off, the onset of CFS can be abrupt and flu-like in many cases, while the onset of depression is characteristically insidious. People with CFS are also much more likely to complain of frequent nausea and flu-like symptoms such as sore throat, painful lymph nodes, feverishness or headache.

Even the fatigue itself can be of a different nature. Though fatigue is a subjective feeling—experienced differently by women and men, various racial and ethnic groups, and older versus younger individuals—

attempts to quantify fatigue have also demonstrated distinct, identifiable components. For example, the fatigue of depression tends to be motivation-related and milder than CFS fatigue, which is frequently severe enough to affect both lifestyle and work. When formally tested, depressed individuals score high on feelings of worthlessness, guilt and self-criticism, while patients with CFS score highest on symptom-related items such as lack of energy, sleep disruption and pain.

Exercise intolerance is another distinct difference between CFS and depression. While the symptoms of depression generally improve with regular exercise, the symptoms of CFS are often exacerbated by activity. In fact, with CFS a worsening of symptoms may last for one to several days after exercise. This postexertional malaise is part of the diagnostic criteria for the illness.

With CFS, there are also several distinct sleep abnormalities, including difficulty initiating and maintaining sleep (DIMS), vivid nightmarish dreams, restlessness and periodic leg movements (PLMS), nocturnal jerking (myoclonus) and muscle spasms. Patients typically report that sleep is not refreshing despite many hours of slumber. Overnight sleep studies

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of people with CFS often demonstrate prolonged sleep latency, reduced sleep efficiency, a lack of deep slow wave sleep, alpha-intrusion (sleep cycle disturbance), frequent awakenings and periodic leg movements. Sleep apnea is also thought to be much more common in CFS than in the general population. Additionally, morning stiffness and “fogginess” (dysania) may last for hours upon waking. These are all uncommon complaints in depression.

Stark neuroendocrine differences also exist between CFS and depression. Depressed patients secrete excessive amounts of cortisol from the adrenals. CFS manifests the exact opposite. In CFS the hypothalamic-pituitary-adrenal (HPA) axis is typically depressed, which leads to low output of cortisol and DHEA from the adrenals, small adrenal size and variable or suppressed output from the thyroid and gonads as well. Serum DHEA-S levels

OCCURENCE OF SYMPTOMS

SYMPTOM	CFS	DEPRESSION
Severe fatigue	100%	28%
Postexertional malaise	84%	19%
Difficulty falling asleep	53%	26%
Early awakenings	19%	58%
Nausea	58%	16%
Difficulty concentrating	83%	79%
Loss of sexual desire	54%	58%
Joint pain	53%	50%
Flu-like symptoms (sore throat, fever, headache)	43-65%	10-22%

Table 1: Though CFS and depression share some similar symptoms, the frequency of occurrence is often quite different. This chart compares the occurrence rates of the nine symptoms addressed in the 1994 International Case Definition for CFS.

CONTRASTING CFS AND DEPRESSION

	CFS	DEPRESSION
Cardinal symptoms	cognitive dysfunction severe fatigue (see below) sleep disorders (see below) muscle, joint and/or headache pain	reduced concentration low energy and malaise hypersomnia or early awakening anhedonia hyper or hypoactivity
Characteristics	hopeful or eager for recovery proactive about seeking treatment	hopeless and helpless low self-efficacy guilt and/or low esteem suicidal tendencies
Fatigue	severe debilitating and disabling symptom-related	mild to moderate not necessarily debilitating motivation or emotion-related
Sleep	difficulty initiating or maintaining sleep vivid or nightmarish dreams periodic leg movements nocturnal myoclonus dysania sleep apnea nonrestorative sleep	hypersomnia or early awakening
Exercise	overexertion can lead to relapse	exercise can be highly therapeutic
Neuroendocrine	HPA axis suppressed hypocortisolism reduced DHEA premature menopause hormonal loss of libido	HPA axis activated hypercortisolism

Table 2: This chart shows a side-by-side comparison of major points of difference between CFS patients and those with depression.

and 24-hour urinary cortisol are usually low in patients with CFS, which may lead to subclinical hypothyroidism, premature menopausal symptoms and loss of libido. All of these are readily measurable and observable distinctions.

Detection and Care

One clinical tool for discerning levels of depression is the Hospital Anxiety and Depression Scale (HADS). The HADS is comprised of statements patients rate based

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on their experience over the past week. The 14 statements are relevant to either generalized anxiety or depression, the latter being largely (but not entirely) composed of reflections of the state of anhedonia (inability to enjoy oneself or take pleasure in everyday things normally enjoyed). The questionnaire takes just three to five minutes to administer and can provide a good starting point for discussing the patient's experience. For example, if a patient answers "hardly at all" to the HADS question "Do you take as much interest in things as you used to?" then you can determine whether pain and exhaustion are the underlying reasons as opposed to a generalized sense of hopelessness or malaise.

Alternately, a colleague of mine with plenty of experience treating CFS commonly asks, "If I could cure you right here and now, what would you do?" He often finds that depressives tend to hem and haw or remain withdrawn and negative. Yet people with CFS have all kinds of plans. They tend to be proactive about returning to an active life.

You can also look for characteristic signs of CFS: pain in muscles, joints or head; cognitive dysfunction; exertional fatigue; and nonrestorative or disrupted sleep. I call this cluster of symptoms "the pain, the brain, the energy drain, and oh how I wish I could sleep again." The good news is that some of these symptoms can be treated and managed even though there is no cure for the CFS itself.

Once you determine that CFS is the culprit, the next step is to provide educational material to the patient, discuss regular rest periods, encourage daily low-level activity and stretching and set reasonable limits on activity to help patients stay within the envelope of tolerable exertion (see exercise article on page 8). Then manage the key symptoms of CFS, starting

with any sleep disruption and expanding to address pain, fatigue and cognition depending upon what is most limiting the patient.

By recognizing CFS and treating it appropriately, a good health care professional can start the process of helping the patient manage this chronic illness. ■

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RESEARCH SHOWS ADDITIONAL BIOLOGIC DISTINCTIONS

The difference between CFS and depression is more than skin deep, but a 2004 study published in the *International Journal of Psychophysiology* suggests that the skin is still a good place to start.

Dr. Hannah-Pazderka Robinson and research colleagues from the University of Alberta in Canada found further biologic distinctions between CFS and depression by examining electrodermal activity and skin temperature. According to their study, people with CFS—unlike those with depression—have lower skin electrical conductance levels and higher skin temperature in the arms and legs.

The researchers obtained data from 36 nondepressed subjects with CFS, 19 with depression and 33 healthy controls. For each subject, the team measured electrical conductivity of the skin using electrodes. Skin temperatures were measured using temperature transducers.

The results were noteworthy. Skin temperatures differed significantly between all three groups, with the CFS group averaging a three- to four-degree centigrade difference over the depressed and healthy controls, respectively. In contrast, the skin conductance levels in the CFS group were significantly lower compared to the other two groups.

The research report suggests that people with CFS could someday be identified by these physiologic measures. The report also adds to the evidence that CFS and depression are distinct disorders with different disease profiles.