

Title: Why am I so tired all the time?  
Part I- Diagnosis of chronic fatigue syndrome

Are you one of nearly half of the general population that complains of being tired [1]? Are you among the 20% of patients seeking medical care who discuss symptoms of fatigue with their physician [2]? Then, no doubt you have heard of chronic fatigue syndrome (CFS) and as you clamber to get out of bed having had too little or too much sleep yet still feeling exhausted, you wonder if you could be suffering from this disorder. Here are a few facts that might help you decide if you should look into things further.

**How chronic does my fatigue need to be?**

Though there is no one unifying hypothesis that explains what causes chronic fatigue, there are some definite guidelines that can help you determine if you belong to that minority of people with CFS. In 1994, the Center for Disease Control defined chronic fatigue syndrome as persistent, *debilitating fatigue lasting at least 6 months that significantly interfered with a person's activity* [3]. *In addition, four or more of the following symptoms needed to occur along with the fatigue within the same 6 months:* impaired memory or concentration, sore throat, tender glands, aching or stiff muscles, multijoint pain, new headaches, poor sleep and worsening symptoms of fatigue after exercise. In many cases, the symptoms of chronic fatigue start abruptly, after the onset of a flu-like illness in someone who was previously health and robust. There is often a decrease in appetite, drenching night sweats, dizziness and alcohol intolerance. There is also an increased sensitivity to agents that affect the central nervous system [4]. In addition, individuals who suffer from CFS often have other conditions such as fibromyalgia, irritable bowel syndrome or temporomandibular joint disorder [5, 6]. CFS symptoms can be so debilitating that up to one third of people are either unable to work or can only work part-time [7, 8].

Just this much information may allay many of your fears and send you scurrying off to look for more benign causes of your general fatigue. But if you are still interested, you should know that:

Chronic fatigue affects up to 3% of the adult population [9] and can also occur in children and adolescents, though less commonly [10]. While initial reports suggested that young, white, upper class women were more likely to be affected, CFS is actually more

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common in Latino, African American and Native American populations [9, 11, 12]. The initial racial bias was likely a reflection of the inequality that exists surrounding access to healthcare.

### **What causes chronic fatigue syndrome?**

Studies in twins [13] and families [14] point to heredity as a possible contributing factor to CFS, though more studies are needed in order to confirm this. Researchers have turned to the central nervous system for clues to explain the neurological symptoms that accompany CFS such as new onset headaches as well as attention and memory deficits. Unfortunately, studies investigating structural changes such as altered blood flow to the brain and brain anatomy have not yielded consistent findings. In spite of the flu-like symptoms often described, to date there is no evidence that viruses are involved either [15], though infection may serve as a trigger or may help perpetuate symptoms. The most promising line of investigation seems to point to alterations in the hormonal pathways that control our response to stress i.e. cortisol levels are lower than normal in CFS patients [16].

### **Could it all be in your head?**

Without specific physical findings or biochemical tests, the natural question to ask is whether CFS stems from one or more psychiatric disorders. Some researchers have suggested that CFS may be a manifestation of major depression [17], hypochondriasis [18] or somatization disorder (a condition where there are no objective findings to support physical symptoms). This view is supported by the observation that 50-75% of patients with CFS have had a history of major depression at some time in their lives [19]. An overlap also exists between the manifestation of CFS and anxiety disorder [20]. While no one is ready to assign causality, it is important not to overlook the presence of a psychiatric disorder that could aggravate CFS if not treated.

### **What can be expected from the clinical evaluation?**

Obviously, there is no single test available to test for the presence of CFS. And even though the NIH recommends that each patient receive a battery of tests and a complete

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physical examination [21], these tend to be unremarkable but for the presence of tenderness over various musculoskeletal sites (similar to fibromyalgia) that is found in 70% of CFS patients [22]. Psychiatric disorders such as depression must be screened for, as these may contribute to the debilitating nature of the condition. In short, it appears that the burden of proof needed for a diagnosis of CFS rests on the presence of a group of symptoms as described above, the duration and severity of their manifestations.

### **The bottom line is...**

If you are feeling tired and worn out and think that you might be suffering from chronic fatigue syndrome, think again. This disorder goes far beyond feelings of general fatigue and low energy levels. It is a debilitating disorder characterized by extreme fatigue combined with musculoskeletal, neurologic and immune-type symptoms that can often leave you unable to work. It is a serious condition that requires a multidisciplinary approach to diagnosis, manage and treat (see Part II- Treatment of chronic fatigue syndrome).

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