

Chronic fatigue syndrome (myalgic encephalopathy): A review

Chronic fatigue syndrome remains a longstanding medical mystery.

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Chronic fatigue syndrome (CFS) has a long history of medical interest. Over the years it has had numerous names including chronic Epstein-Barr virus (EBV) syndrome, chronic mononucleosis syndrome, post-viral fatigue syndrome, epidemic myalgic encephalomyelitis and most recently (derisively) the "yuppie flu." Even the father of ancient Greek medicine, Hippocrates, recognized the muscular fatigue associated with deconditioning. In 1869 Dr. George Miller Beard recognized that nervous energy can become exhausted and proposed the term "neurasthenia."

Definition debuts

Every century brought in new symptoms, names and diagnostic criteria for this debilitating illness, but it still remains with an unknown etiology and pathogenesis. In 1988 the case definition of CFS was first introduced by the Centers for Disease Control (CDC) in Atlanta, Ga. Since



then, there have been numerous attempts to better define CFS all over the world, especially in Australia and Great Britain.

Most recently the CDC, the NIH and the International Chronic Fatigue Syndrome Study Group proposed new diagnostic criteria, shown in Table 1.

Majority middle class

CFS is a disorder which is characterized by the sudden onset of debilitating fatigue. It is accompanied by symptoms such as fever, sore throat, painful lymph nodes, weakness, muscle aches, headaches, depression, sleep disturbance, memory difficulties and confusion. These symptoms can persist from six months to many years and can

dramatically reduce the quality of a person's life. Since the primary symptoms are muscular fatigue and pain, along with symptoms of encephalopathy (lethargy and cognitive difficulties,) it has been recently proposed that CFS be renamed "myalgic encephalopathy."

CFS affects mainly young and middle-aged adults. The most common age for it to start is between 20 and 40 years. The female to male ratio of occurrence is 3:1. The mean time to recovery is about two years but many individuals end up suffering much longer. All socioeconomic groups are represented and the majority of patients are middle class. The incidence of CFS is approximately one percent in the United States, but our studies suggest the incidence may be significantly higher. Several pathogenetic hypotheses have been advanced to explain this illness: viral, immunologic, psychiatric and neurologic.

Much emphasis has been placed on a viral etiology for CFS. The finding that CFS occasionally follows an episode of infectious mononucleosis, coupled with evidence of high titers of antibodies to EBV antigen, led to suggestions that EBV infection is the cause of CFS. Controlled studies of seroepidemiology and