

Special Points of interest:

- At least one million Americans have CFS. This is greater than the number of Americans that have multiple sclerosis, lupus, lung cancer or ovarian cancer
- CFS occurs four times more frequently in women than in men
- The illness occurs most often in people aged 40–59.

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CHRONIC FATIGUE SYNDROME (CFS)

What is chronic fatigue syndrome (CFS) and what are its symptoms?

CFS is a disease is a debilitating and complex illness that is very challenging to diagnose and to treat. It is characterized by extreme fatigue lasting at least 6 months that results in substantial reduction – at least 50%- in occupational, personal, social and/or educational activities. The fatigue does not improve with rest and may be worsened by physical or mental activities.

In addition to persistent fatigue, CFS has eight possible primary signs and symptoms to include: problems with short term memory and concentration, recurrent sore throat, painful and mildly enlarged lymph nodes in your neck or armpits, unexplained muscle soreness, pain that moves from one joint to another without swelling or redness, headache of a new type, pattern or severity, sleep disturbance, and extreme exhaustion lasting more than 24 hours following mental or physical exertion. Patients should have at least four of the above symptoms. Other symptoms can include: abdominal pain, allergies, bloating, chest pain, chronic cough, diarrhea, irregular heartbeat, nausea, depression, irritability, anxiety disorders, SOB and visual disturbances. The clinical course and symptom severity varies considerably among the patient population. There can be frequent patterns of relapse and remission. In most cases duration lasts 3 – 9 years. Symptoms tend to improve over time but a return to full health is rare.

Why is CFS a public health concern?

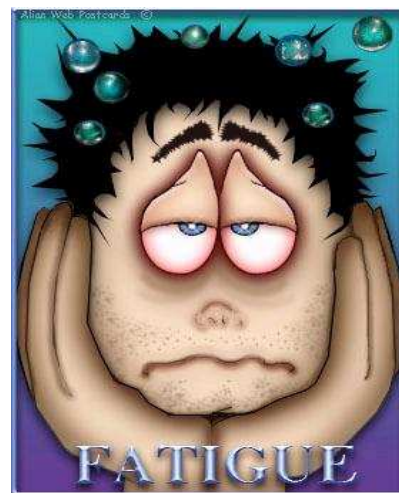
- At least one million Americans have CFS. This is greater than the number of Americans that have multiple sclerosis, lupus, lung cancer or ovarian cancer.
- Less than 20% of Americans with CFS have been diagnosed. There is need for increased CFS awareness among those experiencing symptoms of the illness and among healthcare providers.

- CFS can be debilitating. All CFS patients are functionally impaired. CDC studies show that CFS can be as debilitating as those with MS, lupus, RA, heart disease, COPD and end stage renal disease.

- CFS has a severe economic impact. The annual economic impact of CFS in the US is estimated to be \$9.1 billion in lost productivity, not including medical costs or disability payments. The average family affected by CFS loses \$20,000 a year in wages and earnings.

Who is at risk for CFS?

- CFS occurs four times more frequently in women than in men.
- The illness occurs most often in people aged 40-59.
- CFS is less common in children than in adults.
- CFS occurs in all ethnic groups and races.
- CFS tends to be more prevalent in people with lower educational levels and occupational status.
- CFS is sometimes seen in members of the same family, but there is no evidence that is contagious. There may be a familial predisposition or a genetic link.



CHRONIC FATIGUE SYNDROME—con't

What causes CFS?

CFS is one of the most mysterious of all chronic illnesses with no clear cause. Several possible causes have been proposed including: depression, iron deficiency anemia, hypoglycemia, history of allergies, a virus infection such as Epstein-Barr, dysfunction in the immune system, changes in the levels of hormones produced in the hypothalamus, pituitary or adrenal glands, and chronic low blood pressure. The cause of CFS may be an inflammation of the pathways of the nervous system as a response to an autoimmune process but there is nothing measurable in the blood to aid in diagnosis.



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How do you screen and diagnosis CFS?

A diagnosis of CFS is based on exclusion of any other disease or condition that may be causing the fatigue and related symptoms. There is no diagnostic or laboratory procedure to confirm the presence of chronic fatigue syndrome. Before considering a diagnosis of CFS some of the conditions that must be ruled out include: adrenal insufficiency, malignancy, AIDS, liver or kidney disease, psychosomatic illness, Lyme disease, fibromyalgia, HCV, thyroid disorder, anorexia, bulimia, substance abuse that could be causing fatigue and severe obesity – BMI of 45 or greater. After other diseases or disorders are excluded, then the doctor determines if a patient's symptoms meet the CFS specific criteria.

Possible complications of CFS include: depression, side effects related to medication treatments, side effects associated with lack of activity, social isolation caused by fatigue, lifestyle restrictions and missing work. Kinesiophobia, a fear-induced avoidance behavior, often manifests in patients with CFS. The phobia, which is an irrational fear of physical movement and activity, usually begins when a patient's symptoms worsen after previously well-tolerated levels of exercise. This digression dissuades patients from exercise and promotes a mindset that they are disabled. As a result, the patient continues to avoid exercise and a vicious cycle ensues.

How is CFS treated?

Treatment programs are based on the individual patient's overall medical condition and

symptoms. The aim is to relieve the signs and symptoms by using a combination of treatments.

- Moderating daily activity.
- Graded exercise therapy (GET) to build up fitness levels by gradually increasing activity levels.
- Cognitive behavior therapy (CBT) in which a mental health professional helps the patient to identify negative beliefs and behaviors that might be delaying recovery and to replace them with healthy, positive ones.
- Treatment of depression with tricyclic antidepressants and selective serotonin reuptake inhibitors.
- Treatment of existing pain by using acetaminophen and nonsteroidal anti-inflammatory drugs such as aspirin and ibuprofen.
- Treatment of allergy-like symptoms with antihistamines such as Allegra and Zyrtec and decongestants such as Sudafed.
- Treatment of low blood pressure.
- Treatment for problems of the nervous system such as dizziness and extreme skin tenderness.

Numerous alternative techniques have been used to manage the symptoms of CFS including: massage, acupuncture, chiropractic therapy, cranial-sacral manipulation, hypnosis and therapeutic touch. There has been a lot of research aimed at finding new treatments for CFS. There have been studies involving the following medications: Ritalin, Concerta, d-ribose, corticosteroids, immune globulins and interferon (participants in these studies have experienced severe side effects), antiviral drugs such as acyclovir and cholinesterase inhibitors such as galantamine. Patients should always check with their doctor before adding any remedies to a nutritional regimen. Many products have not been tested in controlled trials and can have some serious side effects especially when combined with prescription medication.

How can one cope with CFS?

There is no known way to prevent the illness from occurring because its cause remains unknown. It is important to be aware of the signs and symptoms and know when to consult with a physician to help manage the symptoms when they occur.

PATIENT IDENTIFICATION ERRORS

The National patient Safety Goals issued by JCAHO listed improving the accuracy of patient identification as a primary goal by requiring the use of at least two patient identifiers when providing care, treatment or services. Most of the errors that still occur are due to the human factor. The technology in the use of bar coding and radiofrequency identification (RFID) has greatly reduced the number of laboratory related errors in blood collection – when used correctly.

The CLSI Routine Venipuncture standard (H3-A6, Oct. 2007) addresses this issue with a new recommendation designed to catch an errors prior to leaving the patient. The standard requires that prior to the start of a venipuncture, the phlebotomist must ask the conscious patient to state his/her full name and then use one other identifier to confirm that the correct patient is about to be drawn. For an outpatient that identifier is the patient's date of birth and for an inpatient that identifier is the patient's medical records number on the patient's armband, which must be attached to the patient's arm or ankle. The specimens must be labeled in the patient's presence at the time of collection.

NEW RECOMMENDATIONS:

Information on the labeled tube must be confirmed with the outpatient by having the patient verify that the information on the labeled tube is correct before leaving and with the inpatient by comparing the labeled tube to the patient's identification armband.

Opportunities for human error abound in phlebotomy – people with similar last names, patients that have been moved, or numbers have been transposed. Some people may be reluctant to learn a new technology and the first thought may be that it will take longer to collect the sample. Education is always the key to introducing anything new. It is important to remind collectors that the impact of collecting the wrong sample from the wrong patient at the wrong time can result in wrong treatment and or patient death.



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FIVE MEDICAL TESTS THAT MAY KEEP YOU WELL

1. CRP or C-reactive protein

CRP measures the amount of inflammation in your body. Elevated CPR levels have been shown to precede and predict heart attack, stroke, colon cancer, diabetes, high blood pressure, Alzheimer's disease, aneurysms, sudden cardiac death, abnormal heart rhythms and even macular degeneration. Optimal levels – less than 0.7 mg/L predict good health. CRP levels can be lowered by exercise, modest weight loss, taking multivitamins, eating fruits and vegetables, and aspirin and statins.

2. Vitamin D level

New research shows that in addition to being needed for calcium absorption, vitamin D is important to the immune system and helps to prevent cancer, especially breast and prostate. It is almost impossible to get an adequate amount of vitamin D from foods. Most people need between 1000 and 1500 IU of vitamin D₃ daily. D₃ is the natural form of vitamin D.

3. *H. pylori* test

This bacteria is responsible for stomach cancer, heartburn, ulcers and even eye disorders. About 20% of Americans may unknowingly be infected with these bacteria. *H. pylori* is a chronic, potentially lifelong infection of the stomach. Infection

occurs when a person eats contaminated food and ingests the bacteria. The infection can be cured with a combination of antibiotics and antacids. A blood antibody test can show if you have been infected and a stool or breath test can identify if you currently have an active infection .

4. Aspirin check

Aspirin has been shown to be a powerful preventive measure for people at risk for heart attack, stroke or colon cancer. It is not clear if 81 mg is the optimal dose for all people. Research has shown that 10 – 20 % of people are resistant to aspirin and requires a higher dose in order to benefit from its protective effects. An aspirin check is a test that determines the effectiveness of the daily aspirin for a particular individual.

5. Insulin level

Type 2 diabetes is characterized by an excess of insulin production in response to eating. By measuring the body's insulin production levels identifies your risk of diabetes long before symptoms occur. If the test indicates that you are at high risk, you have time to take preventive action to reduce your intake of sugar, refined grains and starches to prevent diabetes.

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ACA CONTINUING EDUCATION INFORMATION

A reminder that ABP, Inc. offers home study continuing education booklets to help you earn CE contact hours. Call ABP at (574) 277-0691 to order or visit ABP's website at www.abpincorp.com to download an order form. Some topics available are:

- Hand Hygiene
- MRSA Infections
- HIPAA Security Rule
- Legal Issues in Phlebotomy
- Interpreting ECGs
- Plus many more

CHRONIC FATIGUE SYNDROME—con't from page 2

CFS does respond to rehabilitation. Patients stand a better chance of maintaining a healthy body perception and improving symptoms if they realize the goals and limitations of rehabilitation. The following self-care steps can help you maintain good general health:

- Reduce stress by developing a plan to avoid or limit overexertion and emotional stress. Allow yourself time to relax each day. People who quit work or drop all activity tend to do worse than those who remain active.
- Get enough sleep. Try to go to bed and get up at the same time each day and limit daytime napping.
- Exercise regularly but start slow and build up gradually. Exercises such as walking, swimming, biking or water aerobics may improve symptoms. A physical therapist can help to develop a home exercise program with stretching activities such as yoga and tai chi and muscle -relaxation exercises.
- Pace you and keep activity on an even level.
- Maintain a healthy lifestyle by eating a balanced diet, drinking plenty of fluids, and limiting caffeine intake. Stop smoking!
- Find a hobby that is enjoyable and fulfilling.

The experience of CFS varies from person to person. Emotional support and counseling may help deal with the restrictions of CFS. There are also support groups available for those interested.

RESOURCES

National CFIDS Foundation, Inc., 781-449-3535; <http://www.ncf-net.org>

CDC National Center for Infectious Diseases; <http://www.cdc.gov/ncidod/>

Chronic Fatigue and Immune Dysfunction Syndrome Association of America; <http://www.cfids.org>

National Chronic Fatigue Syndrome and Fibromyalgia Association; <http://www.ncfsa.org>

ACA RECERTIFICATION INFORMATION

What types of documentation should be submitted to ACA?

- Certificates of attendance or completion
- Copies of transcripts
- Official statements from a manager to verify CE activities

The documentation must include date (s) of attendance, title of the activity, and signature of the official issuing or verifying the activity.

ACA Recertification Fees:

One Category 2 year renewal \$60.00

Two Categories 2 year renewal \$85.00

Three Categories 2 year renewal \$95.00

Instructor 1 year renewal \$60.00

DEADLINE DATE EXTENDED: SEPTEMBER 1, 2008

Although—Any recertification not postmarked on or before June 30, 2008 must include an additional \$15.00 making the recertification fee \$75.00.

Go to: www.acacert.com to download the recertification application