

Fatigue and Tiredness



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Fatigue and Tiredness

- Definitions of fatigue
- Causes of fatigue
- Common symptoms and signs with fatigue
- Chronic Fatigue Syndrome
- Management of fatigue
- Summary.

Definitions

- Fatigue is an ***unpleasant*** symptom which ***interferes*** with individuals ability to function to their normal capacity.

(Ream and Richardson, 1996)

- The European Association for Palliative: fatigue is ***a subjective feeling*** of tiredness, weakness or lack of energy.

(Radbruch L et al ,2008)



— i'm —
like

104% TIRED.

- Tiredness is one of the most common complaints of people seen in primary healthcare.
- **Muscle tiredness (ASTHENIA)**

EPIDEMIOLOGY OF FATIGUE

- It is one of the top 10 chief complaints leading to family practice
- Fatigue occurs in up to 20% of patients seeking care.
- More in women than in men.
- Psychiatric illness is present in 60 to 80 % of patients with chronic fatigue.

FATIGUE....

- **Recent-Acute** (less than one month),
- **Prolonged-Subacute** (more than one month till 6 months)
- **Chronic** (over six months)

What is the difference between the CFS, chronic fatigue & idiopathic chronic fatigue?

Type	Definition
chronic fatigue syndrome (Based on CDC 2006)	Clinically evaluated, unexplained, persistent or relapsing fatigue. that is of new or definite onset. is not the result of ongoing exertion; is not alleviated by rest; Cause reduction in previous levels of occupational, educational, social, or personal activities
chronic fatigue	The presence of fatigue for longer than six months .
idiopathic chronic fatigue	No medical or psychiatric explanation can be found . persists for over six months and is debilitating. but does not meet the criteria for the chronic fatigue syndrome.

Acute fatigue:

- Occurs within short duration.
- Its usually results sleep loss or from short periods of heavy physical or mental work.
- It can be reversed by sleep and relaxation.

Chronic fatigue syndrome:

- It is the constant, severe state of tiredness that is not relieved by rest.
- It is similar to the flu, last longer than six months.
- It interferes with certain activities.
- The exact cause of this syndrome is still unknown.

Fatigue is two types

Physical → prevents participation in activities and impedes activities of daily living.

Cognitive → complicates activities such as reading, driving a car and thus prevents leisure activities

Fatigue symptoms

- Difficulty or inability to initiate activity (subjective sense of weakness)
- Reduced capacity to maintain activity (easy fatigability)
- Difficulty with concentration, memory, and emotional stability (mental fatigue).

The impact of fatigue on quality of life.

Fatigue has a strong negative impact on the patient's daily life.

(Pederson, et al 2003)

Fatigue Consequences



Effects of Fatigue...

- Reducing mental and physical functioning
- Impairing judgement and concentration,
- Lowering motivation,
- Slowing reaction time, and
- Increasing risk-taking behaviour.

EVALUATION OF FATIGUE

- History
- Physical examination
- Laboratory studies

EVALUATION OF FATIGUE

- **It is subjective.**
- There are no real tests for this with regard to traditional laboratory or imaging studies.
- It's a subjective lack of physical and/or mental energy that interferes with usual and desired activities.

History

- Age, Gender, occupation abrupt or gradual, related to event or illness?
- Course stable, improving or worsening?
- Duration and daily pattern
- Factors that alleviate or exacerbate symptoms
- Impact on daily life -ability to work.

Physical examination

- ❑ General appearance: level of alertness, psychomotor agitation or retardation, grooming (psychiatric disorder)
- ❑ Presence of lymphadenopathy: a possible sign of chronic infection or malignancy.
- ❑ Evidence of thyroid disease: goiter, thyroid nodule, ophthalmologic changes.
- ❑ Cardiopulmonary examination: signs of congestive heart failure and chronic lung disease.
- ❑ Neurologic examination: muscle bulk, tone, and strength; deep tendon reflexes..etc.

Laboratory tests

- CBC with differentials.
- Chemistry screen (including electrolytes, glucose, renal and liver function tests).
- TSH
- Creatine kinase, if pain or muscle weakness present
- Other ???

Table 2. Laboratory Testing for Patients with Unexplained Fatigue

<i>Test*</i>	<i>Possible conditions</i>	<i>Comments</i>
Complete blood count	Anemia	Should be performed in most patients with a two-week history of fatigue; results change management in 5 percent of patients ¹²
Erythrocyte sedimentation rate	Inflammatory state	
Chemistry panel	Liver disease, renal failure, protein malnutrition	
Thyroid function tests	Hypothyroidism	
Human immunodeficiency virus antibodies	Chronic infection, if not previously tested	
Pregnancy test, if indicated	Pregnancy, breathlessness due to progestins	

Specific clinical signs of organic disease associated with fatigue

- Pallor, tachycardia, systolic ejection murmurs: → anemia
- Blue sclera: → iron deficiency.
- Jaundice, palmar erythema, Dupuytren's contracture: → chronic liver disease
- Goiter or thyroid nodule, dry skin, delayed deep tendon reflexes, peri-orbital puffiness, ophthalmological changes: → hypothyroidism
- Weight loss, hyper-reflexia, tachycardia, atrial fibrillation, fine tremor, goiter: → hyperthyroidism
- Hypotension, pigmentation in skin creases, scars, and buccal mucosa: → Addison's disease
- Pulmonary stasis, elevated jugular venous pressure, ankle edema: → heart failure

Possible causes of Fatigue

- Cancer
- Depression/emotional distress
- Insomnia
- Weight loss/poor nutrition/dehydration
- Infection
- Anemia
- Electrolyte imbalance
- Side effects of medication
- Co-morbidities

ETIOLOGY

Major causes of chronic fatigue

Psychologic	Infectious
Depression	Endocarditis
Anxiety	Tuberculosis
Somatization disorder	Mononucleosis
Malnutrition or drug addiction	Hepatitis
Pharmacologic	Parasitic disease
Hypnotics	HIV infection
Antihypertensives	Cytomegalovirus
Antidepressants	Cardiopulmonary
Drug abuse and drug withdrawal	Chronic heart failure
Endocrine-metabolic	Chronic obstructive pulmonary disease
Hypothyroidism	Connective tissue disease
Diabetes mellitus	Rheumatoid disease
Apathetic hyperthyroidism	Disturbed sleep
Pituitary insufficiency	Sleep apnea
Hypercalcemia	Esophageal reflux
Adrenal insufficiency	Allergic rhinitis
Chronic renal failure	Psychologic causes (see above)
Hepatic failure	Idiopathic (diagnosis by exclusion)
Neoplastic-hematologic	Idiopathic chronic fatigue
Occult malignancy	Chronic fatigue syndrome
Severe anemia	Fibromyalgia

■ BOX 15-1 Common Conditions Leading to Fatigue, by System and Process

Psychogenic: depression, anxiety, adjustment reactions, situational life stress, sexual dysfunction, physical/sexual abuse, occupational stress, and professional burnout

Endocrine: DM, hypothyroidism, hyperparathyroidism, hypopituitarism, Addison disease, electrolyte disorders, malnutrition

Hematologic: anemia, lymphoma, and leukemia

Renal: acute renal failure (ARF), chronic renal failure (CRF)

Liver: hepatitis, cirrhosis

Immunologic/connective tissue: AIDS or AIDS-related complex, sarcoid, mixed connective tissue disease (MCTD), polymyalgia rheumatica

Neuromuscular: upper/lower motor neuron disease from stroke, neoplasm, demyelination, amyotrophic lateral sclerosis (ALS), poliomyelitis, disk herniation, myasthenia gravis, muscular dystrophies

Pulmonary: infectious states (TB, pneumonia), COPD, sleep apnea

Cardiovascular: CHF, cardiomyopathy, valvular heart disease

Reproductive: pregnancy

Iatrogenic: medications, alcoholism, drug abuse

Treatment of Fatigue

Role out: medical condition, a psychiatric condition, an inadequate sleep situation, a social situation, or a sleep disorder

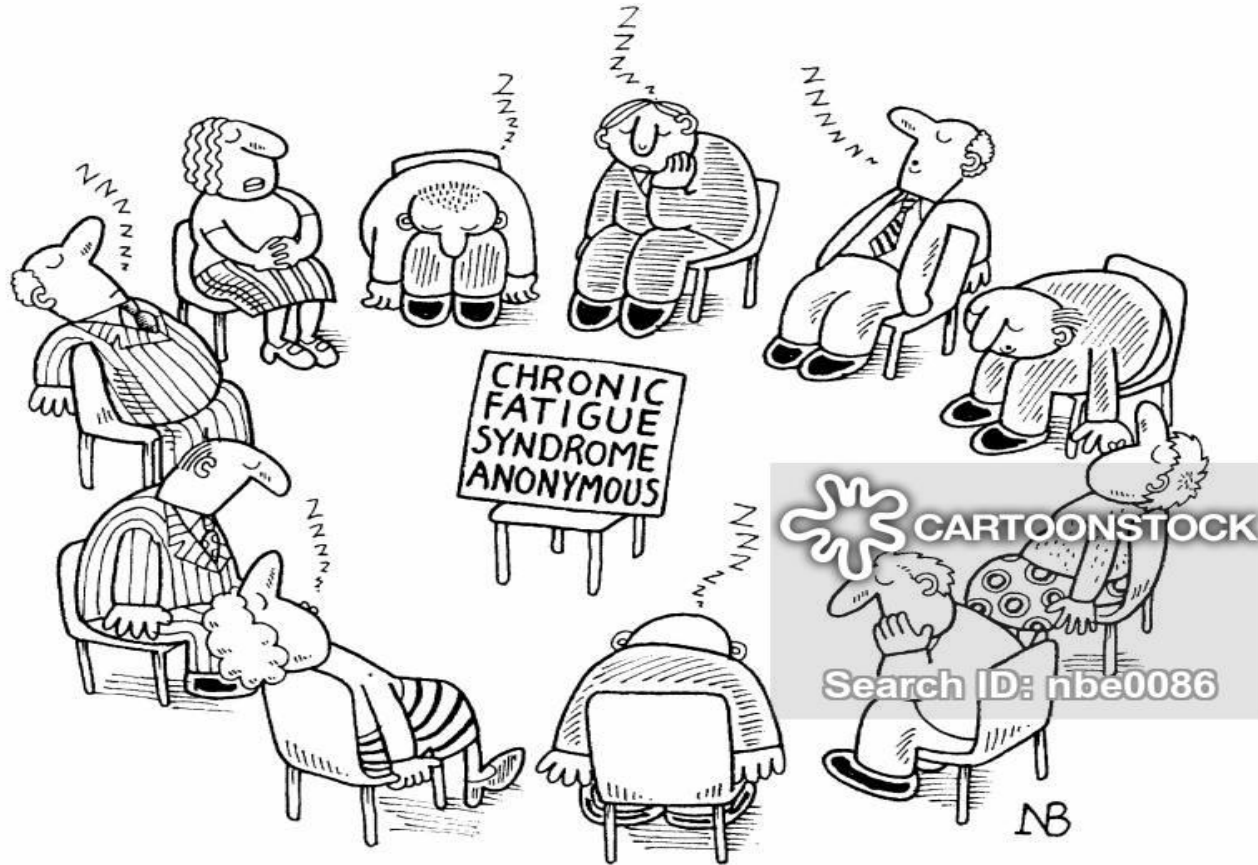
Nonpharmacologic and pharmacologic.

Nonpharmacologic :

- Patient education and understanding normal sleep requirements.
- Diet and nutrition have a role;

Pharmacological approach: stimulants, wake-promoting agents, and other drugs or treatments

Chronic Fatigue Syndrome (CFS)



CHRONIC FATIGUE SYNDROME

1. Unexplained, persistent or relapsing fatigue:

that is of new onset; is not the result of ongoing exertion; is not alleviated by rest; and results in substantial reduction in previous levels of occupational, educational, social, or personal activities

and

2. Four or more of the following: that persist or recur during six months.

Self-reported short term memory impairment, Sore throat, Tender cervical or axillary nodes, Muscle pain, Multi-joint pain without redness or swelling, Headaches of a new pattern or severity, Unrefreshing sleep, Post-exertional malaise lasting ≥ 24 hour

History OF CFS

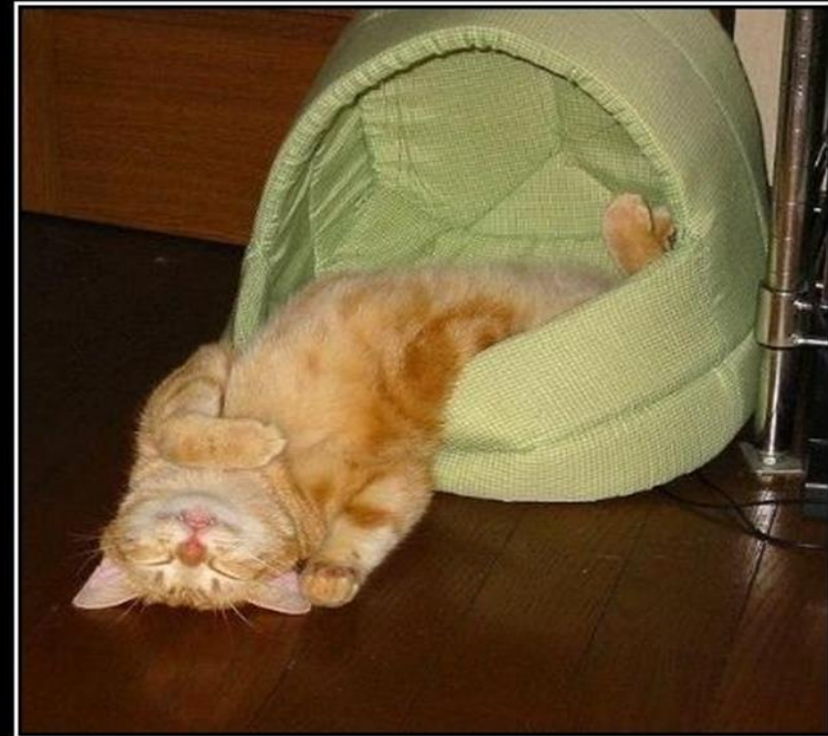
- Typically report postexertional fatigue and feeling excessively tired after relatively normal tasks
- Patients also report fatigue even after prolonged periods of rest or sleep.
- Typically report problems with short-term memory
- They may report verbal dyslexia as the inability to find particular word during normal speech.

The five main symptoms:

- Reduction or impairment in ability to carry out normal daily activities, accompanied by profound fatigue
- Postexertional malaise (worsening of symptoms after physical, cognitive, or emotional effort)
- Unrefreshing sleep
- Cognitive impairment
- Orthostatic intolerance (symptoms that worsen when a person stands upright and improve when the person lies back down)

Percentage of the common symptoms of patients

- Easy fatiguability 100 %
- Difficulty concentrating 90%
- Headache 90 %
- Sore throat 85 %
- Tender lymph nodes 80 %
- Muscle aches 80 %
- Joint aches 75 %
- Feverishness 75 %



**CHRONIC FATIGUE
SYNDROME**

Physical Examination

- Physical examination often reveals no abnormalities. Some patients may have positive orthostatic vital signs.
- Many patients have small, moveable, painless lymph nodes that most commonly involve the neck, axillary region, or inguinal region

Possible causes:

- Idiopathic
- Infection Epstein-Barr virus (EBV)
- Depression
- Sleep disruption
- Others

TREATMENT

- The doctor-patient relationship
- Establishing therapeutic goals.
- Accomplishing the activities of daily living.
- Returning to work.
- Maintaining interpersonal relationships.
- Performing some form of daily exercise.
- Brief regularly scheduled appointments.

CFS Treatment

- Approach Considerations
- CFS has no cure. Treatment is largely supportive and focuses on symptom relief.
- Cognitive Behavioral Therapy (CBT).

SORT: KEY RECOMMENDATIONS FOR PRACTICE

<i>Clinical recommendation</i>	<i>Evidence rating</i>	<i>References</i>	<i>Comments</i>
Exercise therapy should be prescribed for patients with fatigue, regardless of etiology.	A	16-18, 32, 43, 44, 46	There is no evidence that exercise therapy worsens outcomes.
Selective serotonin reuptake inhibitors, such as fluoxetine (Prozac), paroxetine (Paxil), or sertraline (Zoloft), may be helpful for patients with fatigue in whom depression is suspected.	B	22, 49	A six-week trial is recommended to evaluate effectiveness.
Cognitive behavior therapy is an effective treatment for adult outpatients with chronic fatigue syndrome.	A	22, 47, 48	—
Stimulants seldom return patients to predisease performance.	B	21, 45	Stimulants are associated with headaches, restlessness, insomnia, and dry mouth.

A = consistent, good-quality patient-oriented evidence; B = inconsistent or limited-quality patient-oriented evidence; C = consensus, disease-oriented evidence, usual practice, expert opinion, or case series. For information about the SORT evidence rating system, go to <http://www.aafp.org/afpsort.xml>.

Exercise Therapy

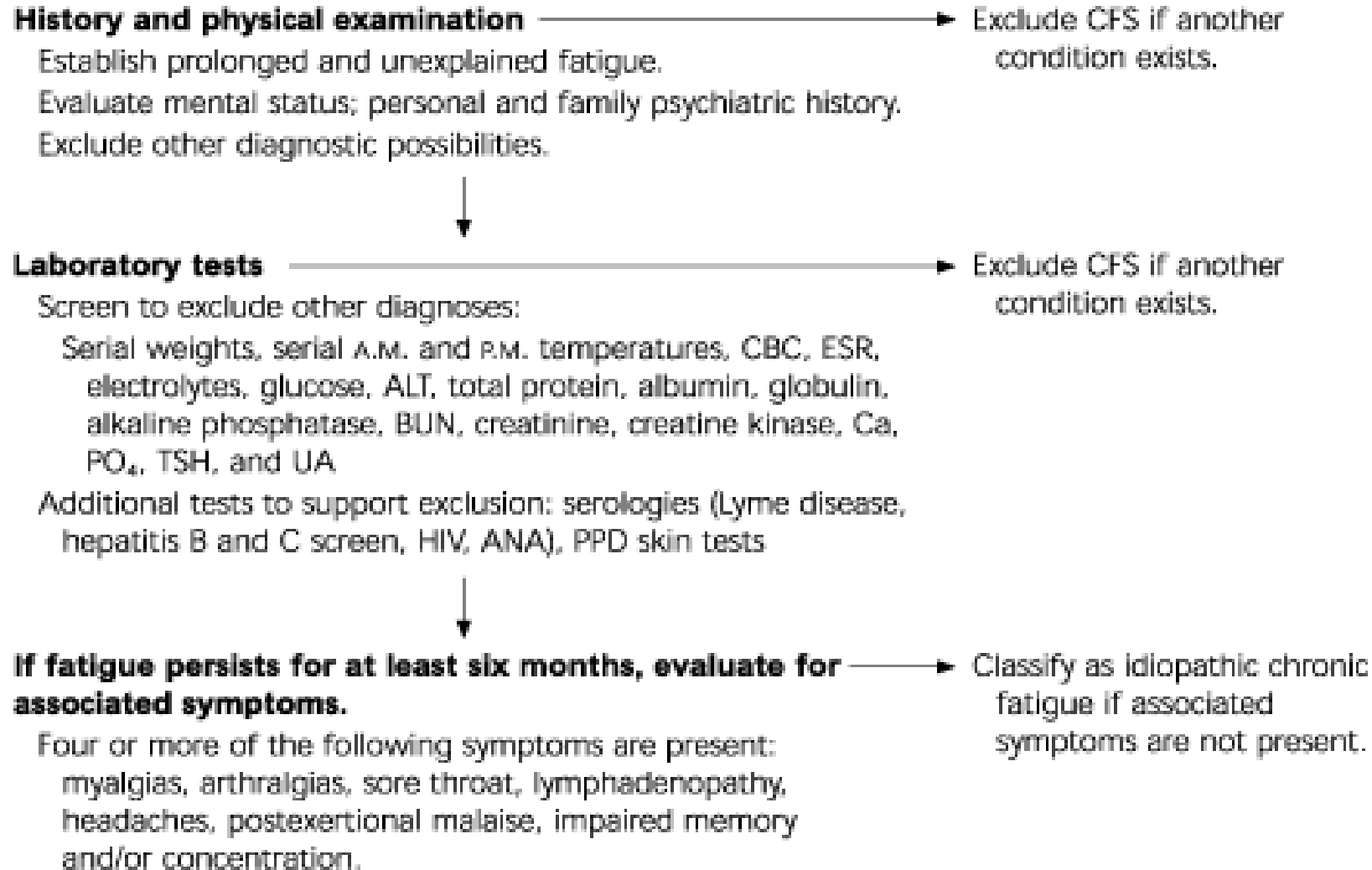
- Exercise is not a cure for CFS.
- The patients felt less fatigued following exercise therapy and felt improved in terms of sleep, physical function, and general health.

(A 2017 Cochrane review)

- Graded Exercise Therapy (GET) is not recommended.

(The CDC and AHRQ)

Summary- Fatigue



Thank You