

# CHRONIC TIREDNESS

*'I'm always tired, doctor.'*

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Tiredness or fatigue is one of the most common symptoms experienced in primary care, ranking in the top 3 along with cough and headache. If asked directly, a third of the population report fatigue as a recent health problem, although only 1 in 400 episodes of tiredness are reported to a doctor. Tiredness as a presenting or accompanying symptom is the reason for consultation in 10% of consultations in family practice in the USA. About 98% of US patients presenting with tiredness are managed in primary care. Tiredness can occur at any age, with women complaining twice as often as men. It is relatively rare in children under 15 years of age.

*The Lancet* first reported on tiredness in the form of 'railway fatigue' in 1862, when it published its pamphlet *The Influence of Railway Travelling on Public Health*, in which it was suggested that travellers' bodies could not cope with the hours of clattering and vibrations, resulting in tired muscles and worn-out sensory organs. Fatigue took on further significance after the world wars, with exotic diagnoses such as soldiers' heart, battle fatigue, combat fatigue and Da Costa's syndrome entering the medical literature. Individuals have consumed enormous amounts of iron tonic, cod-liver oil and malt, and vitamins, applied numerous magnets and copper strips to shoes, corsets and wrists, and even used jolting chairs in their quest for cures of the malady. Doctors still submit to requests for vitamin 'shots' and caffeine-containing tonics. Recently, successful marketing has led to a focus on energy drinks and stimulant drinks which 'give you wings'! Medical practitioners have willingly colluded in the myths surrounding the use of immunotherapy, vitamins, infections and causal links to candidiasis, rickettsia, human herpesvirus 6, and a multitude of other viral infections. Some patients who do not respond are erroneously being diagnosed as suffering from chronic fatigue syndrome (CFS) or fibromyalgia.

Reaching a diagnosis when a patient presents with an imprecise complaint of tiredness is not a simple task. It requires considerable clinical skill, since it may represent the early undifferentiated stage of a serious disease, a physiological response of the body, or more frequently, a patient's underlying struggle to deal with problems of living.

## CAN TIREDNESS BE DEFINED?

There is no precise and reliable definition which is clinically useful. The medical term 'fatigue' is not often expressed by patients, who usually complain of feelings of exhaustion or decreased vitality, a sense of weariness, or a subjective sense of weakness often accompanied with a desire to rest or sleep, when compared with their previous level of energy, or compared with the ability of people they know. They may also complain of secondary effects such as their inability to complete routine and other tasks, disruption to work or their social and family life, or feelings of frustration. Fatigue is generally a 'total body' symptom, not referable to any specific organ system, unless it accompanies a defined pathological condition, such as in myasthenia gravis where the muscle 'tiredness' or weakness may be a particular symptom.

## CAN TIREDNESS BE CLASSIFIED?

Tiredness can perhaps best be conceptualised in terms of the possible cause. Physiological tiredness occurs in normal individuals after strenuous exercise, after working long hours with lack of sleep, or in pregnancy. Pathological tiredness may be organic, psychological or mixed in origin. The commonest cause of tiredness is psychological distress which usually presents as chronic tiredness of longer than 4 months and may accompany somatisation syndrome, anxiety states, or depression. Acute-onset tiredness of less than 2 months is more likely to be due to an organic cause. Some patients

with fatigue have a combination of psychological and organic causes (mixed type). A study in primary care in the Netherlands demonstrated that a specific cause is not found in a third of patients presenting with tiredness, which obviously is frustrating for both the doctor and the patient. The relative ratios and overlaps of these aetiological groups are illustrated in the Venn diagram in Fig. 1.

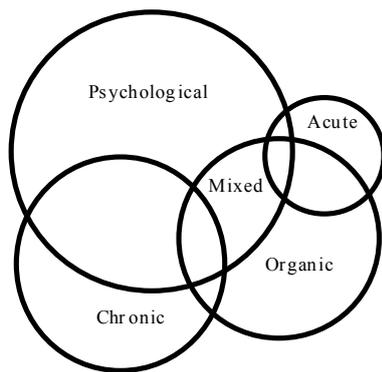


Fig. 1. Diagrammatical representation of a causal classification of non-physiological tiredness indicating relative ratios and overlaps of the aetiological groups.

**CHRONIC TIREDNESS**

The definition of chronic tiredness is not clear. Some authors use the term when tiredness has been present more than 2 weeks, while others use 2 months as the upper limits of acute fatigue, which is then often associated with some acute clinical condition, such as an infective process, recent grief or loss, financial problem or work-related incident.

**Causes of chronic tiredness**

A summary of the main identifiable causes of chronic tiredness is presented in Table I. While it is not fully representative of all possible causes, it demonstrates the wide range of possibilities. The majority of patients (40 - 50%) will have psychological causes, while physical causes will account for only 20 - 30%, with mixed or unknown causes accounting for 20 - 40% of all patients.

Table I. **Causes of chronic tiredness (adapted from Murtagh J)**

**Psychogenic/non-organic**

- Psychiatric disorders
  - anxiety states
  - depression
  - other primary disorders
  - bereavement
  - somatisation disorder
- Lifestyle factors
  - workaholic tendencies and 'burnout'
  - lack of exercise/sedentary lifestyle
  - mental stress and emotional demands
  - exposure to irritants, e.g. carbon monoxide, 'lead' fumes
  - inappropriate diet
  - obesity
  - sleep deprivation

**Organic**

- Congestive cardiac failure
- Anaemia
- Malignancy
- HIV/AIDS
- Subacute to chronic infection
  - hepatitis
  - malaria
  - Lyme disease
- Endocrine
  - thyroid (hyper- and hypo-)
  - adrenal (Cushing's disease, Addison's disease)
  - hyperparathyroidism
  - diabetes mellitus
- Nutritional deficiency
- Renal failure
- Liver disorders
  - chronic liver failure
  - chronic active hepatitis
- Respiratory conditions
  - chronic bronchitis
  - emphysema
- Neuromuscular
  - multiple sclerosis
  - myasthenia gravis
  - Parkinson's disease
- Metabolic
  - hypokalaemia
  - hypomagnesaemia
  - uraemia
- Drug toxicity, addiction or side effects
- Autoimmune disorders
- Sleep-related disorders
  - sleep apnoea
- Post-infectious fatigue syndrome
  - influenza
  - mononucleosis

**Unknown**

- Fibromyalgia
- Chronic fatigue syndrome (CFS)

**What about chronic fatigue syndrome?**

The existence of CFS, sometimes known as myalgic encephalopathy (ME syndrome), has been questioned and debated for over 2 decades, and in particular the various aetiological hypotheses of the condition. Since many patients have depression, some opponents continue to label the condition disparagingly as 'in the mind'. The proponents however consider depression as a co-factor in the condition. A British government-initiated working party reported that it should no longer be considered acceptable for clinicians to state that they did not 'believe' in the disorder, although the evidence around its aetiology, diagnosis, and management is unclear. A study of patients in the UK presenting to their general practitioner with a 6-month history of fatigue found that two-thirds had chronic fatigue, but not CFS.

The fatigue of CFS is disabling, lasting for at least 6 months, and is associated with additional symptoms. The community prevalence is estimated as ranging from 0.01% to 0.7%. The Centers for Disease Control and Prevention (CDC) describe 2 specific and essential criteria for its diagnosis:

- unexplained fatigue that is not due to ongoing exertion, is not relieved by rest, and results in a substantial reduction in previous levels of activity

*The fatigue of CFS is disabling, lasting for at least 6 months, and is associated with additional symptoms.*

*The most discriminating question is asking whether the patient relates the tiredness to a lack of desire or a lack of ability to perform optimally.*

and

- four or more of the following symptoms that are concurrently present for 6 months or more:
- impaired memory or concentration
- sore throat
- tender cervical or axillary lymph nodes
- muscle pain
- multi-joint pain
- new headaches
- unrefreshing sleep
- post-exertional malaise.

**AN APPROACH TO THE MANAGEMENT OF CHRONIC TIREDNESS**

The diagnosis and management of CFS is not a specific focus of this paper. Full details on CFS may be obtained from the CDC website. When consulted by a patient with chronic fatigue, the practitioner who is unable to quickly demonstrate an obvious cause, such as anaemia or bilharzial infestation, is often concerned about the possibility of missing the early undifferentiated phase of a serious condition. The temptation is to over-investigate such patients. Then, in the absence of an obvious organic diagnosis, it is often easy to default to a psychological label. This is much like being confronted by a chronic somatising patient, in whom it is always tempting to do further investigations. However, a logical approach based on probabilities is more likely to be helpful. In some instances, the patient may be well known to the doctor and this relationship and prior knowledge

may assist the practitioner in his or her approach. However, it is recommended that the practitioner apply a safe generalist approach which will identify the common and treatable causes of fatigue while being alert to the more serious but uncommon conditions, such as malignancy or endocrine conditions (refer to Table I). This is achieved essentially by a searching but focused clinical history, followed by an appropriate examination and if necessary limited investigations. Such processes should be based on a hypothetico-deductive problem-solving approach rather than global examination and investigation. This approach may be able to increase the index of suspicion of the conditions in Table I or exclude them.

The history is particularly helpful in distinguishing chronic fatigue from CFS, based on consideration of the essential CDC criteria. It is also important to explore possible side-effects of prescribed and over-the-counter drugs. Laboratory tests should be focused with two primary aims – to rule out serious conditions and to exclude common less serious conditions. Based on the possible hypotheses, the investigations which may be useful include full blood count and erythrocyte sedimentation rate; urea and electrolytes; thyroid-stimulating hormone, serum calcium, phosphate, magnesium and ferritin; fasting glucose, liver transaminases; urinalysis and a pregnancy test in women of childbearing age.

The patient in whom depression or somatisation is suspected should be empirically diagnosed as such, and not by default purely on the exclusion of organic disease. The direction of the history, examination and investigations will also depend on the age and sex of the patient. For example, among elderly and middle-aged patients it would be appropriate to explore symptoms and signs related to circulatory or endocrine conditions, malignancies, nutritional deficiencies or drug reactions, while in younger women it would be important to check

for menstrual irregularities, infections or menorrhagia.

When taking the history it may be useful to explore areas which may assist in differentiating between psychological and organic conditions. These domains are listed in Table II, and are based on further exploration of the nature, timing, and duration of tiredness and factors which influence the symptom. A useful application of the Table is to explore the contents of this chart with the patient, but without the top headings. The responses usually tend to cluster either in the *psychological* column or in the *organic* column. This clustering is further discussed with the patient, which usually enables personal confirmation of his or her own, until then, concealed suspicions. It also facilitates personal understanding of the nature of this baffling symptom. In the author's experience, the most discriminating question is asking whether the patient relates the tiredness to a *lack of desire* or a *lack of ability* to perform optimally.

A finding of excessive day-time sleepiness in an otherwise apparently healthy individual raises specific suspicion of an underlying sleep disorder, the most common of which is obstructive sleep apnoea syndrome. The short Sleep Disorders Questionnaire which has a high sensitivity (95%) and specificity (87%) may be useful in exploring this possibility.

The specific management of the patient will depend on the result of the diagnostic process thus far. While management of an underlying and contributing organic cause may be relatively straightforward at this point, psychosocial causes are much more challenging. But patients who from the onset acknowledge a primary psychological component to their problem are more likely to have a positive outcome. This stresses the importance of early, clear and accurate discussion with patients about the diagnostic possibilities, and involving them in the process at all times.

Table II. Matrix to assist in differentiating between psychological and organic tiredness

Domains to explore	Psychological cause more likely	Organic cause more likely
Who is the complainant?	Usually the patient	May be a member of the family
Physical appearance	Looks anxious/depressed/or normal	Looks ill
Primary deficit	Lack of desire	Lack of ability
Duration	> 3 months or recurrent	< 2 months
Timing	Worse in morning or whole day	Worse in afternoon or evening
Course	Fluctuating course	Progressive course
Onset	Stress-related	Related to onset of the associated physical cause
Effect of sleep or rest on the tiredness	Unaffected	Relieved
Relationship to physical activity	Relieves symptoms	Worsens symptoms
Family and environment	Stressful	Supportive
Associated symptoms	Nonspecific and multiple	Specific and few
Previous health	Often functional history	Usually organic problems if any

Apart from the specific therapy for a diagnosed underlying condition, adjunct therapy in the form of graded exercise and increasing physical activity, improving sleep routines, and cognitive behaviour therapy have been found to assist in the therapy of such patients.

It is regrettable that patients are sometimes met with scepticism by doctors who, when unable to immediately identify a cause for the fatigue, subject them to inappropriate over-investigation, referral, vitamin injections, tonics, and antidepressants, and may even dismiss their symptom as trivial, calling for them to be more positive! A caring family physician should rather acknowledge the patient's symptom as significant to that patient, and spend time taking a searching but focused history and examination, accompanied by limited investigations, and apply all his or her skills and wisdom, over many consultations if necessary, to ensure the patient's trust and peace of mind that the condition is being managed appropriately.

**Further reading**

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**IN A NUTSHELL**

Tiredness, cough and headache are the commonest symptoms experienced by patients in primary care.

Tiredness for longer than 3 months is more likely to be due to psychological factors.

Tiredness for less than 1 month is more likely to be due to organic pathology.

Patients with organic tiredness state that they lack ability to do things, and exercise may make them feel better.

If a patient has day-time sleepiness, think of obstructive sleep apnoea.

**BELIEVE THE PATIENT!!**

**FOR GOUT  
CYSTITIS  
HEARTBURN**

Per effervescent tablet:  
Sod. Citrate 291.0 - 815mg  
Tartaric Acid - 860mg  
Sod. Bicarbonate - 1362mg  
Citric Acid Anhydrous - 705mg

Uri-Aik Effervescent Tablets:  
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