



CHRONIC FATIGUE

Fatigue has some important features:

- A reduced capacity to sustain force or power output.
- Time related decrement in the ability to perform mental tasks.
- Subjective unpleasant feelings of tiredness, weariness and exhaustion.
- Fatigue has both physical and mental components that can be an acute response to physical, mental or infectious triggers and usually decreases as the triggers recedes.

For detailed discussion please refer to references[1] [2].

Cluster outbreaks of Chronic fatigue / Myalgic Encephalitis (ME) have occurred ever since:

- Iceland – 1,000 Icelanders became ill with a flu-like illness causing stiff neck, some muscle weakness, and fatigue, 1948
- England – 200 cases, Royal Free Hospital, London, 1955
- New Zealand – In 1984 there was an outbreak of ME in Tapanui
- USA – Nevada, In 1984 Dr. Daniel Peterson was a treating physician ...(see next slide)
- New York State: One snowy afternoon in 1985, eight children from the tiny farming community of Lyndonville....
- "Epidemic amongst members of The North Carolina Symphony Orchestra. Low Natural Killer Cells associated with high yield of lymphoma, astrocytoma, glioma." 1985

If you are interested to read more about these please refer to <http://www.chronic-fatigue-community.com>.

According to NICE (National Institute for Health and Clinical Excellence) UK guidance, in an adult CFS is an exclusion diagnosis after symptoms have persisted for 4 months and in a child after 3 months, a paediatrician should confirm the diagnosis [3]. International consensus clinical criteria for diagnosing chronic fatigue [4] is summarised as shown below:



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It is therefore very important to take a systematic and careful clinical history and examination to diagnose CFS/ME and when handling a patient with CFS /ME consider other possibilities and the red alerts[3] are:

- Significant weight loss
- Clinical significant lymphadenopathy
- Localising or focal neurological signs
- Features of inflammatory arthritis
- Connective tissue disease
- Cardiorespiratory disease
- Sleep apnoea
- Medical treatment may be a cause of fatigue
- Modulation of neuroendocrine indicators (Lyme disease, renal dialysis, cancer, corticosteroids)

If in doubt careful laboratory work up is undertaken. Disorders of vitamins and minerals, presence of biomarkers of chronic fatigue (cytokines) and gene polymorphism, environmental toxins are different factors that play role in causing CFS/ME. Immune disorders, food intolerances, viral infections and candida infections are commonly associated with CFS/ME.

The complex interaction involved in CFS and ME requires to address different aspects of this disease[3]. The proposed model has following components:

- Neuro-endocrine regulation (hypothalamic pituitary adrenal axis - HPA)
- Immunological regulation (pro-inflammatory cytokines)
- Genetics
- Psychiatric disorders (Stressors & emotional distress)
- Infectious disorders (latent virus infection)
- not yet fully understood (Lyme disease)

Dr. Prem Bajaj has contributed to the development of understanding of fatigue and presented his study in the year 2000 at an international meeting held in Denmark ([http://vbn.aau.dk/da/persons/prem-bajaj\(fb33d7e7-0f5d-4020-935f-c88f99d342e\)/publications.html](http://vbn.aau.dk/da/persons/prem-bajaj(fb33d7e7-0f5d-4020-935f-c88f99d342e)/publications.html)) and he recently also presented a talk on chronic fatigue and myalgic encephalitis at a conference held in Colchester organised by SEATA and further gave a talk on the role of Acupuncture and Autorelaxation management in fibromyalgia in october 2012 in a talk organised by the fibromyalgia association at their national conference (see publication list).

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