



# **FIBROMYALGIA**

## **Contemporary Issues**

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### **Definition**

**Fibromyalgia (FMS) Widespread muscular pain of 3 months or more duration in all regions of the body with pain produced at 11 of 18 specific tender points on the body with digital pressure of 4 kgs. (American College of Rheumatology 1990)**

### **Incidence**

**About 2% of adults in the US have FMS. 3.4% of women and 0.5% of men (Wolfe et al. 1995) 5% of patients in a primary care practice and 30% of patients in a rheumatologist office have FMS.**

### **Precipitating Events**

**Flu-like illness  
HIV infection  
Parvovirus  
Lyme disease  
Toxic oil syndrome  
Siliconosis  
Chronic sleep disturbance  
Physical trauma (like whiplash injury)**

**Emotional trauma  
Medications, steroid withdrawal  
Persistent stress**

## **Etiology**

**Unknown but improved understanding in recent years. It is not a somatoform disorder and when present, anxiety and depression are more likely to be the result than the cause of FMS. Originally thought to be an inflammatory disorder (Gowers 1904) then psychogenic rheumatism (Boland 1947). FMS was called fibrositis until 1976. There are conflicting reports of changes on muscle biopsy and muscle energy production is normal (Simms 1994)**

**Modofsky demonstrated that sleep deprived volunteers develop an FMS-like state and that abnormal alpha activity on the electroencephalogram is intrusive on the delta waves of deep sleep. Immune changes are similar to that seen with sleep deprivation. A percentage of FMS have very low growth hormone and DHEA levels. (Bennett 1998). Another subpopulation has a conversion problem in changing Free T4 to Free T.3 (Wilson 1993)**

**Russell has shown abnormal serotonin metabolism with low 5HT and HIAA levels in spinal fluid and high substance P, a tachykinin produced by the nervous system.**

**Regional perfusion abnormalities in pain modulating areas are shown with PET and triple SPECT imaging. Neural plasticity modeling abnormalities and resultant central signal processing abnormalities are currently gaining acceptance. Some antibody production blood testing is currently being researched to see if it is relevant. Robert Suhadolnik from Philadelphia continued to confirm his work that the RnaseL pathway is upregulated in CFS and has continued to demonstrate the presence of a low molecular weight (LMW) form of this enzyme in peripheral blood mononuclear cells (PBMC) in CFS. It is not clear how this viral cleavage agent contributes to pure fibromyalgia**

**Associated Conditions (Wolfe 1990)**

**Percent reporting**

|                                       |             |
|---------------------------------------|-------------|
| <b>Widespread pain</b>                | <b>97.6</b> |
| <b>Tenderness in 11/18 points</b>     | <b>90.1</b> |
| <b>Fatigue</b>                        | <b>81.4</b> |
| <b>Morning stiffness</b>              | <b>77.0</b> |
| <b>Paresthesias</b>                   | <b>62.8</b> |
| <b>Migraine and tension headaches</b> | <b>52.8</b> |
| <b>Anxiety</b>                        | <b>47.8</b> |
| <b>Dysmenorrhea</b>                   | <b>40.6</b> |
| <b>Sicca syndrome</b>                 | <b>35.8</b> |
| <b>Prior depression</b>               | <b>31.5</b> |
| <b>Irritable Bowel syndrome</b>       | <b>29.6</b> |
| <b>Urinary frequency</b>              | <b>26.3</b> |
| <b>Raynaud's syndrome</b>             | <b>16.7</b> |

**Cognitive and memory changes, dizziness and chronic itching can be found with this disorder. Often there is an overlap with Chronic Fatigue Immune Dysfunction Syndrome.**

**Pain in 11 of 18 tender point sites on digital palpation**

**Definition: Pain, on digital palpation, must be present in at least 11 of the following 18 tender point sites:**

- **Occiput - at the suboccipital muscle insertions.**
- **Low cervical - at the anterior aspects of the intertransverse spaces at C5-C7.**
- **Trapezius - at the midpoint of the upper border.**
- **Suprapinatus - at origins, above the scapula spine near the medial border.**
- **Second rib - upper lateral to the second costochondral junction.**
- **Lateral epicondyle - 2 cm distal to the epicondyles.**
- **Gluteal - in upper outer quadrants of buttocks in anterior fold of muscle.**
- **Greater trochanter - posterior to the trochanteric prominence.**
- **Knee - at the medial fat pad proximal to the joint line.**

**It is important to eliminate regional pain syndromes, myofascial pain syndromes, endocrine myopathies and more rare myopathies such as McArdles disease, Lymes disease and other**

potential infections. About 40% are associated with collagen vascular disease such as Sjorgren's disease 11%, systemic lupus 22%, and rheumatoid arthritis 12%. Also eliminate Polymyalgia rheumatica, Polymyositis, Neuropathies, multiple sclerosis and myasthenia gravis. Spondyloarthropathies, and hypermobility disorders

## **Treatment:**

### **Non-pharmacological**

Biofeedback (Ferracciaoli 1989) and cognitive therapy (Goldenberg 1991, White 1995, Worrel 2001) have helped. Stretching exercises and aerobic exercises (McCain 1988), hydrotherapy, myofascial release, Vader massage methods are useful. Improved sleep hygiene and elimination of sleep apnea and restless leg syndrome. Proper nutrition, elimination of food intolerances, reduction of noxious stimuli and chemical exposure, meditation, Yogi. Nutritional supplements with NADH, Coenzyme Q 10, B and C vitamins, antioxidants, melatonin, 5 hydroxytryptophane, grapeseed extract, magnesium glycinate or malate

Experimental: various cerebral biofeedback techniques, hyperbaric oxygen, serotonin H3 antagonists, hypnosis, and environmental detoxification methods.

A new method of cerebral and autonomic neurotransmitter modulation (repletion) combined with transmethylation restoration termed the Hinz method is promising and is currently our preferred approach along with LEAP or other allergy testing for food, chemical and inhalant intolerances. Both of these methods are patented and require special professional training to utilize.

### **Pharmacological:**

Pharmacotherapy can help at times. Prozac, Ambien, Klonopin, Neurontin and other GABA agonists, Norflex, Robaxin, Flexeril,

**amitryptiline, trazadone, Sonata can be helpful with individual cases.**

**Endocrine replacement with natural estrogen, testosterone, DHEA, growth hormone, thyroid**

**Suppression of Candida Albicans where appropriate.**

**Evaluating and treating any toxic or infectious factors are important as well as ruling out chronic Lyme disease.**

**Rest, stretching proper nutrition with reduction of grains and below ground vegetables (high in carbohydrates) are of value. Emotional de - stressing are general considerations.**

**Results with the proper combination of treatments is over 90%**

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