

FACT SHEET — SYSTEMIC / CENTRAL SENSITISATION

Fibromyalgia

Widespread pain, fatigue, and central sensitisation — understanding a complex condition

Fibromyalgia is a chronic pain condition characterised by widespread musculoskeletal pain, fatigue, sleep disturbance, and cognitive difficulties ("fibro fog"). It is not a psychological condition — it reflects real changes in how the central nervous system processes pain signals. It is one of the most common pain conditions and is frequently underdiagnosed or misunderstood.

What causes fibromyalgia

Fibromyalgia involves central sensitisation — the pain processing system becomes amplified, responding more intensely to stimuli that would not normally be painful, and generating widespread pain from signals that a healthy nervous system would interpret as mild or non-threatening. This is a neurological change, not an imagined one, and it has measurable physiological correlates.

What central sensitisation means

In fibromyalgia, the "volume control" of the nervous system is turned up too high. Touch, pressure, temperature, and other stimuli are interpreted as more painful than they should be. The pain is real — it is not imagined or exaggerated. But the driver is in the nervous system rather than in the tissues where the pain is felt.

Symptoms

- Widespread pain — affecting multiple areas of the body, often described as aching, burning, or throbbing
- Fatigue — often profound, not relieved by sleep
- Non-restorative sleep — waking unrefreshed
- Cognitive difficulties — brain fog, poor concentration, memory problems
- Sensitivity to touch, temperature, noise, and light
- Headaches, IBS, and bladder symptoms are common co-occurring conditions

Management

Exercise	The most evidence-based treatment. Aerobic exercise, Pilates, swimming, and walking all reduce pain and fatigue. Start low and progress very gradually.
Sleep management	Addressing sleep quality is fundamental. Sleep hygiene, amitriptyline, and CBT for insomnia.
Medication	Duloxetine, pregabalin, and amitriptyline are the most evidence-supported medications. NSAIDs and opioids have limited evidence in fibromyalgia.
Pain neuroscience education	Understanding the mechanism of central sensitisation significantly improves outcomes. Knowledge of why pain persists reduces fear and catastrophising.

Psychological support	CBT, ACT, and mindfulness-based stress reduction all have evidence in fibromyalgia management.
Manual therapy	Gentle soft tissue work, massage, and movement-based therapy can complement other management. Aggressive or deep tissue work can flare symptoms.

Related fact sheets

Central sensitisation and chronic pain	The neurological basis of amplified pain.
Yellow flags and chronic back pain	Psychosocial factors that contribute to pain persistence.
Sleep and back pain	The two-way relationship between sleep and pain.
Pilates and yoga for back pain	Exercise as treatment for central sensitisation.

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