

# **NIMODIPINE use in M.E. / CFS: An Introduction.**

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*Please do not take any prescription drug without the express permission and guidance of a qualified medical doctor.*

## **The BENEFITS of NIMODIPINE USE in M.E./CFS**

This report is a brief overview of how the drug nimodipine has improved the health of some people with Chronic Fatigue Syndrome (M.E./CFS). It is my hope that a greater number of doctors will make this low risk and clinically tested treatment available to their patients.

I was housebound for many years due to M.E. but quickly improved and am now 85% of well. I can go out every day, go shopping, organize and manage large volunteer projects, walk over six miles a day, drive a car, enjoy foreign holidays, and research and lead discussions and give presentations. This significant improvement in my functioning is due to my use of nimodipine (Nimotop). I have taken nimodipine for ten years with no ill effects.

About half of the people that try nimodipine will get some level of benefit. Benefits include greater alertness, mental clarity, energy and stamina, and a reduction in fatigue, muscle pain, and headache. In the beginning your mind and body may be out of condition despite a feeling of wellness. It is still necessary to use pacing to fit within the mental and physical activity level envelope available to that person as they have not been cured of M.E., only reached a level of relief from symptoms.

For many M.E./CFS people benefit is seen without any side effects. Side effects which have been reported to me are headache, flushing, dizziness, palpitations, intestinal disturbance, nausea and brief sweating with a strong odour. If you get any of these symptoms, tell your doctor. (Notes: 10, 38, 99.)

My longer paper entitled "Nimodipine use in M.E./CFS: A Comprehensive Guide" should be referred to before treatment begins. The longer paper can be found on the website of the 25% M.E. Group: [25megroup.org](http://25megroup.org) > Information > Medical Publications > Other M.E. Papers.

## **DESCRIPTION of the drug nimodipine**

The type of drug: Nimodipine (nih MO dih peen or nye MO' dih peen) is a second generation L-type calcium channel blocker, also called a calcium antagonist, in the dihydropyridine (DHP) class. In general, L-type calcium channel blockers (CCBs) slow the movement of calcium ions into the muscle cell membranes of the arteries throughout the body. The resulting lower level of calcium in the blood vessel walls relaxes and widens them which improves the blood flow and energy into cells. They do not harm the strength of the bones.

Unique effects of nimodipine: *Nimodipine is the only calcium channel blocker to have a greater effect on arteries in the brain than elsewhere in the body*, so it is unlikely to affect blood pressure. Nimodipine's potent effect increases blood flow to all areas of the brain and the brainstem. This benefit reduces brain damage after a stroke or brain aneurysm and is the drug's main use. *Nimodipine crosses the blood-brain barrier into the central nervous system more easily than other DHP drugs. It is rapidly spread throughout the body to tissues and organs.*

Absorption: The drug is metabolized in the liver and absorbed by the intestines. Peak concentrations in the body are 30 to 60 minutes after taking the drug and it has disappeared from the body in five to ten hours.

Side effects, safety and efficacy: This is considered a low risk drug with side effects

occurring in very few patients. Trials have found that 4 in 100 patients had side effects, yet *more patients had side effects from the placebos than from the drug.* (Notes: 10, 38, 38A, 51, 96.)

### **Relevant M.E./CFS PHYSIOLOGY**

**Brain matter and blood flow:** MRI scans have found that mid-brain white matter volume decreases with fatigue duration in CFS patients. SPECT and CT brain scans have shown significant abnormalities to blood flow in certain parts of the brain in people with ME/CFS. Low cerebral blood flow is further reduced after active exercise (when it normally would increase). (Notes: 7, 90, 116, 126, 139.)

**Cognitive functioning:** A combined analysis of 50 studies of cognitive functioning in CFS showed problems with attention, memory and reaction time, especially notable when the patient required information processing speed and working memory over a length of time. “Brain fog” is often one of the most disabling symptoms of ME/CFS. (Notes: 29.)

**Cerebral spinal fluid and spinal cord:** Abnormalities in the spinal fluid and inflammation in the spinal cord indicate reduced blood flow from the brain and impaired sensory information travelling to the brain. (Notes: 23.)

**Cell health:** It is proposed that in M.E./CFS the key abnormality is dysfunctional ion channels (channelopathy) in the cell membranes. Studies have shown damaged mitochondria which give energy to the cells of the brain and muscles, fewer RNA in muscles and a defect in protein manufacture by the body in M.E. patients. (Notes: 23, 26.)

### **My recommended PROTOCOL for the use of nimodipine in M.E.**

Many people with M.E. are very sensitive to drugs. A gentle introduction of nimodipine is possible with the use of 30mg tablets which can be split (rather than gel-filled capsules which cannot be split). All of the research and personal accounts given to me have been with the use of Bayer’s branded Nimotop. Swallow the tablets with a drink of water.

A minimum trial length of 60 days is suggested.

Begin with ¼ tablet (7.5mg) in the morning. If well tolerated, gradually increase the dosage every week or two and spread it over three periods of the day.

If side effects, decrease to previous dose for a week, then try the increase again.

After benefit is seen, which might not be until 30mg or 60mg per day, maintain that dosage for 8 weeks.

Increase dosage to see if additional benefit is obtained. If no increased benefit, then maintain the previous dosage.

A wide variation in maintenance dosage is seen. The average is 90 mg per day in divided doses. The maximum is 120 mg per day in divided doses.

Every year or two, lower the dosage for 8 weeks to see if still required.

Do not suddenly discontinue the drug but taper down the daily dosage.

### **Cautions when taking the drug nimodipine**

**This drug is not advised:** If you are pregnant or breastfeeding, have epilepsy, kidney or liver problems, swelling in the brain, have ever had bleeding in the brain, or have had a heart attack within the last month then this drug is not advised. Caution is advised for those under age 18 or over age 65 as safety trials have not been done on this group. While this drug is taken, it may interfere with the ability to father a child.

**Drug interactions:** For an up-to-date list of drugs that should not be taken at the same time as nimodipine, please reference the Electronic Medicines Compendium ([www.medicines.org.uk](http://www.medicines.org.uk)) or Drug Information Online ([www.drugs.com](http://www.drugs.com)).

**Natural remedies** that *should not be used* at the same time as nimodipine are Ephedra

(ma huang), yohimbin and St. John's wort. Multi-vitamin supplements can reduce the effect of nimodipine or lower your blood pressure, so use them *cautiously*. (Notes: 10, 38, 106.)

Avoid eating grapefruit or drinking the juice while taking nimodipine because it will increase the blood levels of the drug for up to four days. You should get advice from your doctor before using salt substitutes containing potassium. (Notes: 10, 12, 38.)

Monitoring your health: Please be aware that the safety of the long term continuous use of this drug has not been established. Blood pressure checks, blood counts, and kidney and liver function blood tests should be routinely performed. (The liver enzymes can be slightly raised by nimodipine; this is harmless.) (Notes: 10, 93, 104.)

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The author is seeking further accounts from doctors and people with M.E. about their prescribing or use of nimodipine.

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