

# Multiple Sclerosis Screening Process & Treatment Protocol

Does the patient have moderate to severe spasticity associated with MS?

Yes

Did conventional anti-spasticity medication fail to induce adequate therapeutic effects?

Yes

Did the patients have previous adverse reactions to cannabis or a family history of psychotic illness? Is the patient breastfeeding?

Yes

Compromised liver function?

Yes

Potentially  
contraindicated

No

## Start treatment trial to determine efficacy and optimal dose:

**Starting Dose:** 1 spray (2.7mg THC, 2.5mg CBD)

### Titration Schedule:

**Day 1:** 0 sprays am, 1 spray pm, total daily dose 1 spray (2.7mg THC, 2.5mg CBD)

**Day 2:** 0 sprays am, 1 spray pm, total daily dose 1 spray (2.7mg THC, 2.5mg CBD)

**Day 3:** 0 sprays am, 2 sprays pm, total daily dose 2 sprays (5.4mg THC, 5mg CBD)

**Day 4:** 0 sprays am, 2 sprays pm, total daily dose 2 sprays (5.4mg THC, 5mg CBD)

**Day 5:** 1 sprays am, 2 sprays pm, total daily dose 3 sprays (8.1mg THC, 7.5mg CBD)

**Day 6:** 1 sprays am, 3 sprays pm, total daily dose 4 sprays (10.8mg THC, 10mg CBD)

**Day 7:** 1 sprays am, 4 sprays pm, total daily dose 5 sprays (13.5mg THC, 12.5mg CBD)

**Day 8:** 2 sprays am, 4 sprays pm, total daily dose 6 sprays (13.5mg THC, 12.5mg CBD)

**Day 9:** 2 sprays am, 5 sprays pm, total daily dose 7 sprays (18.9mg THC, 17.5mg CBD)

**Day 10:** 3 sprays am, 5 sprays pm, total daily dose **8 sprays** (21.6mg THC, 20mg CBD)

**Day 11:** 3 sprays am, 6 sprays pm, total daily dose 9 sprays (24.3mg THC, 22.5mg CBD)

**Day 12:** 4 sprays am, 6 sprays pm, total daily dose 10 sprays (27mg THC, 25mg CBD)

**Day 13:** 4 sprays am, 7 sprays pm, total daily dose 11 sprays (29.7mg THC, 27.5mg CBD)

**Day 14:** 5 sprays am, 7 sprays pm, total daily dose 12 sprays (32.4mg THC, 30mg CBD)

**Maximum Daily Dose:** 12 sprays (32.4mg THC, 30mg CBD)

**Average Effective Dose:** 8 sprays

Continue  
treatment

Yes

Adequate therapeutic effects?

No

Consider  
modulators of  
the eCBome

**Sativex®** (as an oromucosal spray) made by GW Pharma Ltd is a pharmaceutical drug containing D-9-THC and CBD (~1:1) made from cannabis leaf and flower. Click respective links for [patient leaflet](#) and [clinician information](#) (last updated December 1, 2022).

# Multiple Sclerosis



## Other Cannabis Constituents and Modulators of the eCBome for Patients with MS

### Terpenes

- **Beta-caryophyllene:** This terpene suppressed motor paralysis and neuroinflammation in a rodent model of MS ([T. B. Alberti et al., 2017](#)).

### Lipidome

- **↑ Omega-3** supplementations can induce therapeutic effects in patients with MS ([W. A. AlAmmar et al., 2021](#)). In general, the FDA recommends that daily intake not exceed three g/d of eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) combined, with no more than two g/d deriving from supplements ([K. N. Kruppa et al., 2024](#)).
- **Vitamin D:** A systematic review and meta-analysis found that vitamin D deficiency is associated with an increased likelihood of MS ([N. N. Balasooria et al., 2024](#)). To provide the reader with some context the FDA daily recommended vitamin D intake is 20 mcg per day, i.e., 800 IU (1 mcg of vitamin D equals 40 IU).

### Nutraceuticals

- **Palmitoylethanolamide (PEA):** Clinical trial data revealed that orally administered ultramicrozoned (NORMAST® 600 mg/day) with subcutaneous administration of interferon (IFN)-β1a (a first-line drug for MS) produced significant therapeutic effects ([N. S. Orefice et al., 2016](#)).
- **Turmeric** may work to induce therapeutic effects associated with MS ([M. Qureshi et al., 2018](#)). For instance, a study on MS patients found that nano-curcumin inhibited neuroinflammation in MS patients ([S. Dolati et al., 2018](#), [S. Dolati et al., 2019](#)).

### Dietary considerations

- **Highly Processed Foods (HPF):** ↓ HPF may benefit patients with MS ([A. Mannino et al., 2023](#)).
- **Keto diet:** A 6-month switch to a keto diet in 65 MS patients produced several significant clinical improvements such as fatigue, depression, quality of life, neurological disability, and inflammation ([J. N. Brenton et al., 2022](#)).
- **Hot-natured diet:** Clinical trials have shown that the co-administration of hempseed and primrose oil, with an advised hot-nature and balanced-natured diet [a concept taken from traditional Persian medicine (TPM)], was beneficial for patients with MS ([S. Rezapour-Firouzi et al., 2015](#)) while cold-natured foods may exasperate symptoms of MS ([M. H. Sharifi et al., 2021](#)).

### Mind-Body Medicine

- **Osteopathic Manipulations Treatment (OMT):** Clinical data revealed that OTM might be beneficial to patients with MS mitigating symptoms of anxiety and fatigue ([B. Porcari et al., 2019](#)).
- **Exercise** (supervised aerobic) is clinically effective for improving overall health-related quality of life in MS ([V. A. Flores 2023](#)).
- **Yoga:** Yoga can reduce fatigue in patients with MS ([M. Sohani et al., 2020](#)).

### Microbiome

- **↑ Pro-biotics:** Clinical trial data suggests that taking at least 2 billion live micro-organisms including *Lactobacillus* and *Bifidobacterium* may lead to significant therapeutic impact ([M. Rahimlou et al., 2022](#)) in this patient population. Data from another clinical trial revealed that supplementation with the yeast strain *Saccharomyces boulardii* may benefit inflammatory markers, oxidative stress indicators, pain, fatigue, and quality of life in MS patients ([K. M. Asghari et al., 2023](#)).