



SOD B Extramel® & Physical Pain Relief

Modern life involves being physically healthy. People are everyday subjected to low intensity physical efforts which, when they are numerous and not properly managed, lead to a sensation of physical fatigue and even pain. Pain can be localized (back, neck, joints) or generalized (bodily pain), and often results from oxidative and inflammatory processes. Oxidative stress is acknowledged as a major cause of pain development as the overproduction of Reactive Oxygen Species (ROS) alters nociception, favors hyperalgesia and pain transmission. Highest source of natural and bioactive SuperOxide Dismutase (SOD), SOD B Extramel® is a natural innovative active ingredient which has been clinically proven to prevent physical pain and improve the general body physical status.

Pain: a universal oxidative issue

Daily physical pain is today recognized as a major universal health issue, limiting productivity and altering life quality. In today's sedentary lifestyles, chronic back and neck pains are the most frequent. Lower Back Pain (LBP) affects more than 15-30% of the adult population. LBP has many effects on physical, emotional, and cognitive functions¹. Chronic Neck Pain (CNP) is estimated to have an annual prevalence between 30 and 50%, being associated with significant economic and societal effects.

Oxidative stress is one of the main factors responsible of body pain development. Studies have shown that physical pain results from the accumulation of superoxide anions ($O_2^{\cdot-}$), leading to oxidative stress and inflammation. The formation of harmful oxidative products participates in deactivating SOD in the spinal cord, favoring hyperalgesia³. As the first line of antioxidant defenses, SOD is the only antioxidant agent able to eliminate $O_2^{\cdot-}$. Consequently, SOD has been demonstrated to correct inflammation and hyperalgesia (Figure 1)³.

Clinical study: Bodily pain relief

A double-blind placebo controlled clinical study, performed on 70 active people, has assessed the action of an oral supplementation with SOD B Extramel® (140 IU SOD/day) on global bodily pain. Physical pain has been scored using the validated Ferreri Anxiety Rating Diagram (FARD) which evaluates the bodily pain directly associated with stress and anxiety. Results highlighted a significant reduction of bodily pain by -78.5% compared to placebo after 28 days of supplementation (Figure 2)⁴.

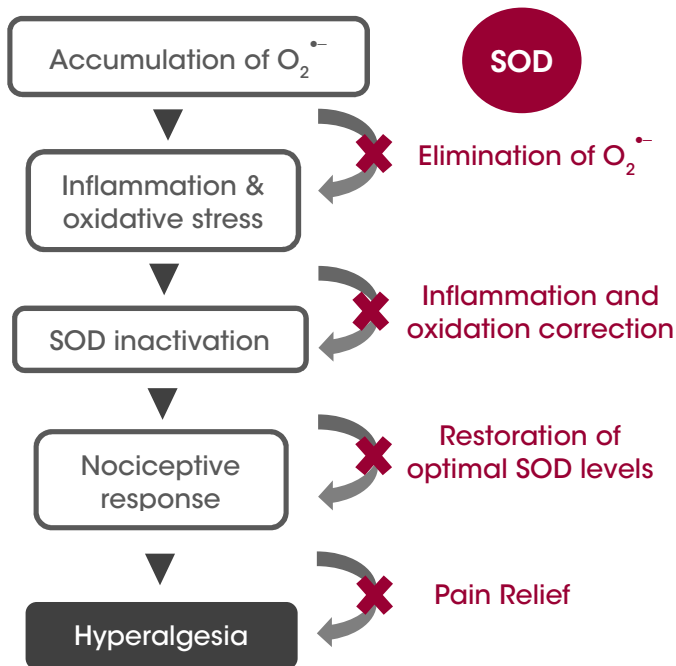


Figure 1: Pain development and SOD action.

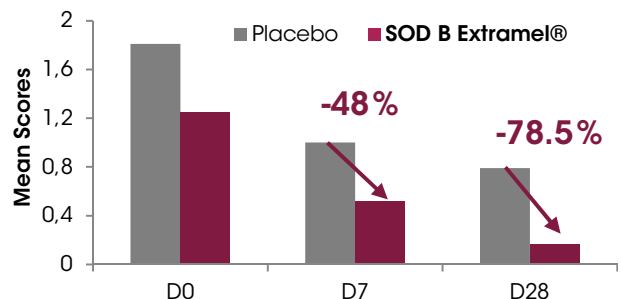


Figure 2: Effect of SOD B Extramel® on global physical pain⁴.



Clinical study: Muscle pain relief

A double-blind placebo controlled clinical study, performed on 61 active urban people, has evaluated the effect of an oral supplementation with SOD B Extramel® (140 IU SOD/day) on muscle pain. The physical fatigue has been determined by using the validated Prevoist Subjective Fatigue scale. The Prevoist subjective fatigue scale is a relevant tool intended to determine individual's perceived muscle pain. Results reported a significant reduction of muscular fatigue by -9.4% (P< 0.05) compared to placebo after 84 days of supplementation (Figure 3)⁵.

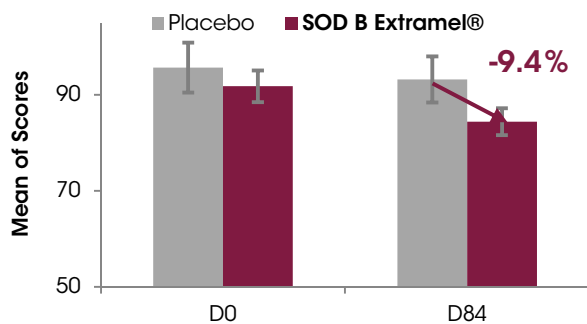


Figure 3: Effect of SOD B Extramel® on muscle pain⁵.

Clinical study: Back pain relief

The efficiency of SOD B Extramel® has been clinically tested on chronic Low Back Pain (LBP). 98 LBP affected subjects were orally supplemented for 60 days with SOD B Extramel® (140 IU SOD/day) combined with Alpha-Lipoid Acid (ALA, 600 mg). The Pain Rating Scale (PRS) were used to assess back pain according to a 6-item verbal scale (from "no pain" to "unacceptable pain"). Scores were assessed at baseline (T0), and after 20 (T1), 40 (T2) and 60 (T3) days of supplementation respectively. A statistically significant improvement of perceived pain and functional disabilities has been reported at T1, T2 and T3 (Figure 4)¹.

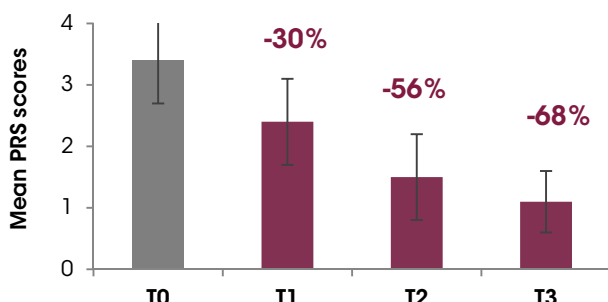


Figure 4: SOD B Extramel® + ALA effect on perceived back pain after 20 (T1), 40 (T2), and 60 (T3) days¹.

Clinical study: Neck pain relief

The same formulation has reported its clinical efficiency in the reduction of Chronic Neck Pain (CNP). 96 CNP subjects were supplemented with the formulation combined with physiotherapy (n=51) versus physiotherapy alone (n=45). Neck pain was assessed by a Visual Analogue Scale (VAS), applied at baseline (T0), 1 month (T1), and 2 months (T2) of supplementation². VAS scores are significantly improved in people supplemented with the formulation and physiotherapy vs to physiotherapy alone. Beneficial effects are observed both by assessing pain at rest and pain on movement².

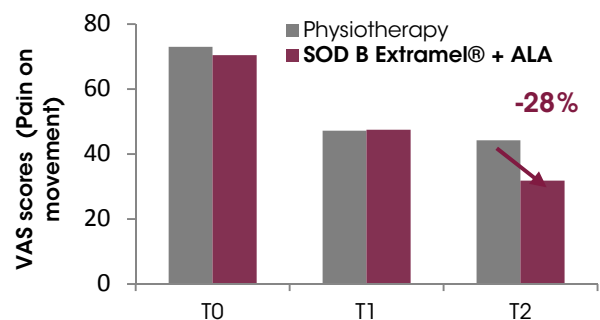


Figure 5: SOD B Extramel® + ALA effect on neck pain assessed by VAS during a pain-provoking movement².

Physical pain, mainly located in back, neck and joints, is one of the most prevalent conditions limiting productivity and diminishing quality of life. ROS, especially O₂^{-•}, plays a key role in the nociceptive response by favoring inflammation and hyperalgesia. 4 clinical studies have demonstrated the efficiency of SOD B Extramel®, alone or formulated, in:

- Lowering general bodily pain
- Reducing muscle pain
- Relieving back pain
- Alleviating neck pain

As the highest source of natural and bioactive SOD, SOD B Extramel® boosts the body's SOD levels, providing a strong antioxidant and anti-inflammatory protection. Such an action allows an optimized pain control.

Daily recommended dosage: 10 mg i.e. 140 IU SOD.

1. Battisti E et al. 2013.

2. Letizia Mauro G et al. 2014.

3. Wang Z et al. 2004.

4. Milesi MA et al. 2009.

5. Carillon J et al. 2014.