# Doctor highlights magnesium, omega-3 and coenzyme Q10 as emerging supports for chronic pain



Chronic pain affects millions worldwide, often leading to a complex and frustrating journey of management for those impacted. GP Dr Asif Ahmed recently shared insights into potential nutritional supports that may aid individuals grappling with such conditions, particularly fibromyalgia. He highlighted three supplements—magnesium, omega-3 fatty acids, and coenzyme Q10—that could complement traditional medical therapies and lifestyle adjustments.

Dr Ahmed’s first recommendation is magnesium, which he suggests many individuals ought to consider. He emphasises the importance of selecting a high-absorbing form, such as magnesium glycinate or L-threonate. Magnesium plays critical roles in numerous bodily functions, including energy production and hormonal balance. According to the NHS, a deficiency in magnesium can exacerbate symptoms associated with chronic conditions, as it is essential for regulating blood pressure and inflammation. Recent studies corroborate this, indicating that adequate magnesium intake may offer protective benefits against chronic pain. One study published in the Journal of Human Nutrition and Dietetics found a significant association between higher magnesium consumption and a reduced likelihood of experiencing chronic pain. Furthermore, research featured in The Journal of Physiology suggests that magnesium supplementation may modulate pain pathways, particularly in neuropathic pain contexts.

Omega-3 fatty acids are the second vital supplement Dr Ahmed recommends. He advises looking for formulations with a high concentration of EPA compared to DHA, ideally in a 2:1 ratio. Omega-3s have garnered attention for their anti-inflammatory properties, which may be particularly beneficial for individuals with chronic conditions like rheumatoid arthritis. The U.S. Department of Veterans Affairs notes that omega-3 supplementation has alleviated joint tenderness and morning stiffness in arthritis patients, despite some variability in study results. A case series highlighted in the Journal of Clinical Rheumatology further supports the potential efficacy of omega-3s, showing significant pain reduction in patients with neuropathic pain following high doses of fish oil.

Completing Dr Ahmed’s trio is coenzyme Q10, a supplement that has garnered attention for its potential effects on chronic pain and fatigue. While evidence is still emerging, some studies suggest that coenzyme Q10 may play a role in pain relief, although the exact mechanisms remain somewhat unclear. Integrative approaches that include these supplements could provide an additional layer of support for those coping with chronic pain. However, as Dr Ahmed advises, it is crucial for individuals to engage their healthcare providers before starting any supplement, especially if they are currently on medication.

Overall, while supplementation may offer hope in managing chronic pain, it is vital to approach these therapies as part of a comprehensive strategy that includes medical guidance, lifestyle changes, and non-pharmaceutical interventions. As research continues to evolve, the nuanced interplay between dietary factors and chronic pain management highlights the potential for more informed and personalised care strategies, fostering better quality of life for those affected.

### Reference Map

1. Paragraph 1: [[1]](https://www.express.co.uk/life-style/health/2057820/doctor-supplements-help-chronic-pain)
2. Paragraph 2: [[1]](https://www.express.co.uk/life-style/health/2057820/doctor-supplements-help-chronic-pain), [[3]](https://pubmed.ncbi.nlm.nih.gov/32708577/), [[2]](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3002451/)
3. Paragraph 3: [[1]](https://www.express.co.uk/life-style/health/2057820/doctor-supplements-help-chronic-pain), [[7]](https://www.va.gov/WHOLEHEALTHLIBRARY/overviews/chronic-pain.asp), [[5]](https://pubmed.ncbi.nlm.nih.gov/20090445/)
4. Paragraph 4: [[1]](https://www.express.co.uk/life-style/health/2057820/doctor-supplements-help-chronic-pain), [[6]](https://www.ncbi.nlm.nih.gov/books/NBK475790/)
5. Paragraph 5: [[1]](https://www.express.co.uk/life-style/health/2057820/doctor-supplements-help-chronic-pain)

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## Bibliography

1. <https://www.express.co.uk/life-style/health/2057820/doctor-supplements-help-chronic-pain> - Please view link - unable to able to access data
2. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3002451/> - A study published in The Journal of Physiology investigated the effects of magnesium supplementation on neuropathic pain in diabetic rats. The researchers found that oral magnesium supplementation attenuated mechanical hypersensitivity and thermal allodynia, suggesting a potential therapeutic role for magnesium in managing chronic neuropathic pain. The study also observed that magnesium supplementation prevented the increase in spinal cord dorsal horn NMDA receptor phosphorylation, indicating a mechanism through which magnesium may modulate pain pathways.
3. <https://pubmed.ncbi.nlm.nih.gov/32708577/> - A study published in the Journal of Human Nutrition and Dietetics examined the relationship between dietary magnesium intake and chronic pain in U.S. adults. The researchers found that increased magnesium intake was associated with a decreased likelihood of experiencing chronic pain, suggesting a protective effect of magnesium against chronic pain. The study highlighted the importance of adequate magnesium consumption in potentially reducing the risk of chronic pain conditions.
4. <https://pubmed.ncbi.nlm.nih.gov/39263198/> - An updated review published in the Journal of Clinical Anesthesia evaluated the efficacy of intravenous magnesium for managing chronic pain. The review concluded that while intravenous magnesium shows promise in treating certain types of chronic pain, such as renal colic and pelvic pain related to endometriosis, the evidence for its effectiveness in other chronic pain conditions remains equivocal. The authors emphasized the need for further research to elucidate the neurobiological mechanisms underlying magnesium's analgesic effects.
5. <https://pubmed.ncbi.nlm.nih.gov/20090445/> - A case series published in the Journal of Clinical Rheumatology investigated the effects of omega-3 fatty acids on neuropathic pain. The study involved five patients with different underlying diagnoses, all of whom experienced clinically significant pain reduction and improved function after treatment with high oral doses of omega-3 fish oil. The authors suggested that omega-3 fatty acids may be beneficial in managing neuropathic pain and called for further randomized controlled trials to confirm these findings.
6. <https://www.ncbi.nlm.nih.gov/books/NBK475790/> - A review published in the National Center for Biotechnology Information's Bookshelf assessed the clinical effectiveness and guidelines regarding the use of magnesium as an alternative or adjunct to opioids for migraine and chronic pain. The review found moderate evidence supporting the efficacy of magnesium in reducing pain intensity and improving headache response in patients with migraine. However, the evidence for its effectiveness in other chronic pain conditions was limited, and the authors recommended further research to strengthen these findings.
7. <https://www.va.gov/WHOLEHEALTHLIBRARY/overviews/chronic-pain.asp> - The U.S. Department of Veterans Affairs Whole Health Library provides an overview of chronic pain management, including the role of omega-3 fatty acids. The resource highlights that omega-3 supplementation has been found to improve joint tenderness and morning stiffness in patients with rheumatoid arthritis. It also notes that omega-3 supplementation may contribute to pain reduction and improvement in other rheumatoid arthritis-related symptoms, although the evidence is of low quality due to high variability among studies.