

## Cetyl Myristoleate May Help Build And Maintain Healthy Cells For Better Health

Cetyl myristoleate is a fatty acid ester used largely as a dietary supplement to support joint mobility and the immune system. Chemically it is a natural hexadecyl ester of cis-9-tetradecanoic acid, an unsaturated fatty acid commonly known as myristoleic acid.

The acid is found naturally in fish and whale oils, and also in butter and kombo butter from the kombo nut. The ester is of a buttery consistency at normal room temperatures, and turns waxy when cooled, and it has no known uses other than as a health supplement, particularly for the treatment of arthritis and other inflammatory and immune system problems.

The substances appear to have similar therapeutic characteristics to unsaturated essential fatty acids, but with a stronger and more long lasting effect. It also appears to work in three distinctly different ways in that it acts as a joint lubricant, supports the immune system and functions in the same way as essential fatty acids.

Arthritis is a disease that has reached epidemic proportions worldwide, and it is estimated that more than 50 million Americans are affected by it. Until recently it was believed to be a disease of the aged, or associated with physical injury, but is now known to be more complex than that, with many manifestations and causes. Because of this, no single treatment is effective with all forms of arthritis, but cetyl myristoleate is the new kid on the block that is believed to make a significant contribution to the treatment of non-infective forms of the disease.

However, it was not always known, and a search in the textbooks for cetyl myristoleate prior to 1977 would have yielded nothing. Why 1977? It started with Harry W Diehl, a sugar chemist with an interest in the treatment of arthritis. While carrying out research on arthritis in mice, he was working on thin layer chromatographic analysis of a methylene chloride extract of macerated mice. He noticed a separation that was unknown to him, which was subsequently identified as cetyl myristoleate.

He had been unable to induce arthritis in mice, and believed that if he found out how to do that, then he should also be able to establish what made the mice immune to the disease, and so establish a cure. He soon established that it was this cetyl myristoleate circulating in the blood that protected the mice, and then found a way of synthesizing it in the lab by esterifying myristoleic acid.

Since the compound was unknown at that time Diehl patented it in 1977, hence the date. Apart from in mice, it has subsequently been found only in whale oil and in one of the glands of the male beaver, with no other known sources at the time of writing. There have been several studies that have supported the effect of cetyl myristoleate on arthritis, the first human study being in 1995 when 46 out of 48 arthritis patients showed significant improvement in articular mobility and reduction in pain. Others since have demonstrated similar results.

So how does it work? What is the mechanism by which this hitherto unknown substance helps to relieve the symptoms of osteo and rheumatoid arthritis? Being a fatty acid ester, cetyl myristoleate possesses lubricant properties, and one of its properties is to supplement the synovial fluid that lubricates the joints and tendons. This helps to keep the joints moving freely, and reduces their tendency to grind when the connective tissue wears. It also lubricates entire muscle groups, allowing them to slide over each other more freely, and also over bones allowing a smoother movement of the joints.

The second way, in which it operates, by supporting the immune system, is particularly appropriate to the treatment of rheumatoid arthritis which is caused by the immune system attacking the body's own joint and connective tissue. In this respect, cetyl myristoleate has also been found effective in treating other immune system conditions such as multiple sclerosis and lupus erythematosus.

Finally, it also possesses the mediation effect on the inflammatory reaction possessed by other essential fatty acids. This helps to reduce the effect of inflammation that causes much of the swelling and pain of arthritic conditions, although it occurs much faster than with other fatty acids. When taken together, all of these effects have a powerful effect in reducing the unpleasant symptoms of both osteoarthritis and rheumatoid arthritis. Swelling is reduced, mobility is improved and pain is alleviated. Improvements have been reported by sufferers of both types of arthritis, and in fact it is reported that Harry Diehl successfully treated his own arthritis with the substance before any other human tests had been carried out.

Cetyl Myristoleate is now used world-wide in significant quantities, and there have as yet been no confirmed reports of adverse side effects. However, as with many otherwise safe supplements, it is recommended not to be taken by pregnant or lactating women until it has been proved to definitely have no side effects on the fetus or young babies.

Although there is no definitive scientific evidence of the effectiveness of the substance in relieving the symptoms of arthritis, there is an overwhelming body of evidence from those that have used it world wide. The accepted treatment is by non-steroidal anti-inflammatory drugs (NSAIDs), and with over

16,000 NSAID-related deaths in the USA alone each year, cetyl myristoleate is certainly worth considering as an alternative for arthritis sufferers. Not only that but there is a very significant price differential, with NSAIDs costing 5 – 10 times that of cetyl myristoleate.

Among the other benefits that people using the substance have reported are beneficial effects on psoriasis, hepatitis, high blood pressure, eczema, allergies, headaches and many more. Although many of these might be coincidence or psychosomatic, it cannot just be coincidence that many of them, such as psoriasis and allergies, are related to the immune system.

However, anybody with asthma or a history of severe allergic reactions should consult their physician before using the substance. That aside, there is more than enough popular evidence to indicate that cetyl myristoleate is effective in the treatment of arthritis in all its forms, and also good for your general state of health and wellness.

### About the Author

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