

by William Freshwater, DC

# Report of a Clinical Trial of Arthritis Patients Using Cetyl Myristoleate

**A**s chiropractors, we have many patients with arthritis. We have all seen first hand the pain and suffering wrought by it. While we do not treat any specific diseases, we can, through chiropractic treatments and dietary supplementation, create conditions in the body which will help return the body to health and, therefore, remove symptoms which may be caused by arthritis. If deemed necessary in case management, dietary regimes and nutritional supplementation are often advised as adjunctive therapy.

Arthritis is a major health, societal and financial problem for the entire nation. An article written a few years ago reported that costs for arthritis care are \$150 billion and rising.<sup>1</sup> About half of that cost is for medical care and the other half is indirect costs due to lost wages.

I became intensely interested in rheumatoid arthritis many years ago when a beautiful young lady whom I knew well was struck with the disease. She was a good friend, just in her early twenties. After experiencing the usual symptoms of painful, swollen small joints, and overall achiness and stiffness, she was diagnosed with rheumatoid arthritis.

She soon became crippled and had to be hospitalized. I was possessed with researching whether there were any natural compounds which, as part of a nutritional supplementation program, would help her, but discovered nothing at the time that was of benefit. Tragically, she was soon confined to a wheel chair. Her condition worsened and she ultimately died from the disease at a relatively young age.

Since then, I continued to try various new natural products that could be of benefit to arthritis sufferers. In 1997, I became aware of Cetyl Myristoleate (CM), then a very new compound just beginning to show some spectacular results in the treatment of rheumatoid and osteoarthritis. I asked my arthritis patients to try CM, and observed some good responses, a number of spectacular responses and, of course, some in whom no benefits were noticeable. In 1998, I decided to structure a clinical study of 26 of my patients who were suffering with osteoarthritis and one with rheumatoid arthritis. This article will provide background on CM and a report of my study.

## Research and Discovery of CM

Cetyl Myristoleate (CM) is a fatty acid ester from myristoleic acid, a common fatty acid found in fish oils, whale oils, dairy butter and animal fats. Cetyl

Myristoleate was discovered in 1964 by Harry W. Diehl, an experienced medical researcher who was employed at the time by the National Institute of Arthritis, Metabolism, and Digestive Diseases at the National Institute of Health. However, CM was a project of his personal interest, and not a government sponsored effort. Diehl had been trying to find something that would work against arthritis, and learned that mice do not get arthritis naturally, and neither can it be induced experimentally.

Working in his home lab, Diehl theorized that there had to be something in the mice that prevented them from getting arthritis.<sup>2</sup> He soon isolated a compound, CM, in mice that did not occur in their biological kin, rats, which can easily be given arthritis experimentally while mice can not. The next step was to see if experimentally induced arthritis in rats could be blocked or cured by CM. His research was published in the *Journal of Pharmaceutical Sciences* in March 1994. Diehl reported that a group of normal rats were injected with CM. Then 48 hours later, they were, injected with Freund's Adjuvant to induce polyarthritis. A control group of rats was given Freund's Adjuvant only. The rats protected by CM developed no arthritis pathology and grew 5.7 times as much as the control group, which did contract arthritis. Diehl's experiments showed that CM gave virtually complete protection against adjuvant-induced arthritis.<sup>3</sup>

## CM Works for Harry Diehl

Like many older Americans, Diehl himself fell victim to osteoarthritis in his hands, heels, and knees. After trying the usual treatment of cortisone and NSAID's without much effect, his physician told him he could not administer any more cortisone. Diehl then decided to try his CM discovery on himself, and he successfully cured himself of all symptoms of arthritis.

## How Does CM Work?

No one knows for sure. Sounds like a familiar answer when it concerns dietary supplements and, for that matter, many pharmaceutical compounds as well. With one-half of the molecule coming from a fatty acid, CM shares properties of the essential fatty acids, but it seems to work faster and last longer in its effects against arthritis than the EFA's. Dr. Charles Cochran has written, "Some authors and practitioners believe that Cetyl Myristoleate has the ability to reprogram faulty

memory T-cells, thus treating the cause of arthritis [in the case of rheumatoid types of arthritis]. However, I must say I have not found this to be totally correct. Cetyl Myristoleate may have the ability to normalize hyper-immune responses, thus [producing] the favorable results in treating autoimmune conditions such as rheumatoid arthritis and systemic lupus erythematosus, but it seems to function more effectively as a lubricant and a powerful anti-inflammatory."<sup>4</sup>

## Clinical Study on Rheumatoid Arthritis

A multi-center clinical research study involving 431 patients with various forms of rheumatoid arthritis was performed in 1996, using various established measurement criteria, including joint swelling, joint pain, chest expansion, blood analysis, urinalysis, radiographic assessment, and physician and patient assessment. The patients were divided into three groups and tested for one month. One group received CM. Another group received the same amount of CM plus glucosamine and other adjuvants. The third group received a placebo.

The remarkable results showed significant improvement (63.3%) in the group using CM alone, and 87% improvement in the group using the combination of CM, glucosamine, and other adjuvants. The placebo group showed only a 14.5% improvement.<sup>5</sup>

## Safety of CM

In the same study, there were no adverse reactions in 205 patients who received CM alone or in combination. None of the patients receiving CM reported CNS symptoms. Only five of 205 patients receiving CM reported gastrointestinal symptoms (GI), while three of 226 patients receiving placebo reported GI symptoms.<sup>6</sup>

## Arthritis Study

With the study of rheumatoid arthritis showing such remarkable results, and my own previous experience with CM, I decided to do a study on my patients with osteoarthritis, rheumatoid arthritis, and fibromyalgia. As would be expected, I see a great many patients who suffer from a variety of osteoarthritic conditions in the back. Other patients coming to me for chiropractic treatments have osteoarthritis of the knees, shoulders, hip, feet and all the other sites where arthritis strikes. I selected 26 patients with a variety of osteoarthritis condi-



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golf and racquetball once or twice weekly. In his 59th year, getting in and out of a golf cart became so painful after a few holes that he was unable to continue. Racquetball games caused severe pain in the low back. Additionally, his running declined because of severe low back pain. Pepper consulted several orthopedic surgeons about his back pain problems. He also continued chiropractic care with physical therapy which was now providing little benefit. Medications provided by the orthopedist were not of benefit. As a last resort, Pepper tried a seven-day program of Medrol Dosepak (prednisone), without benefit. Pepper called me and I told him about some of the glowing reports I had read about the effectiveness of CM. He was placed on a CM treatment program. After one week of using CM, Pepper called me and told me that he could not believe how much improvement he felt. He was virtually pain free. He had already played a round of golf and a racquetball game without pain. He was elated to return to the sports he thought he would never play again. Following two months of using CM, Pepper went on a glucosamine sulfate maintenance program. He recently told me that he still feels great, having only taken the CM for two months with maintenance of glucosamine sulfate since that time.

#### Looking Ahead

The results obtained with the patients

in the CM study as well as with other patients I treated with CM have given me a more positive approach in the use of nutritional supplementation for my patients with osteo- and inflammatory arthritis. I recently touched base with Marcia, Norma, Delores, Adam, and Pepper. They all continue to maintain the original benefit brought about by the use of CM many months after using it. Although I have no ongoing contact with the other patients in the study, those whom I have seen or talked with tell me they also maintain their initial benefits without continued use of CM.

I have practiced for forty-five years and have never felt as confident as I do at this time regarding a natural treatment regimen for joint and connective tissue pain. A report in the Journal of the American Medical Association stated that more than 100,000 patients die and another 2.2 million are harmed by adverse reactions annually from properly administered pharmaceutical drugs.<sup>7</sup> What a blessing it is to know that we can use natural substances with nil or negligible side effects to help our patients.

While the study reported in this article focused mainly on my patients with osteoarthritis of the spine and related conditions, recently, I have been placing cumulative trauma conditions of the wrists, forearms and elbows on a CM and glucosamine sulfate regimen with positive results, though it is too early in

this program to document outcomes. However, anything providing relief in this major work injury problem would be a breakthrough. One chiropractor has referred to CM as nature's answer to arthritis and one of the most important nutritional discoveries of the 20th century.<sup>8</sup> Based on my experience, further studies and wider use of CM by health care professionals may well prove him right in the 21st century. ♦

*Author Dr. William Freshwater, DC, has been practicing chiropractic since 1952, and is currently the owner and clinical director of the Siloam Clinic, a major chiropractic pain and stress center in Baldwin Park, CA. For additional information you may contact the author at 626-337-6040.*

For references call TAC

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Author's address: 14100 Francisquito Avenue, Suite 23, Baldwin Park, CA 91706