

# **GREEN MOUNTAIN ESCAPE**



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# CLINICAL APPLICATIONS FOR A POWERFUL NEW & NATURAL ANTI-INFLAMMATORY OIL: CETYL MYRISTOLEATE (CMO, MYRISTIN)

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## Introduction:

Occasionally a revolutionary type of product surfaces and catches the imagination of a clinician. Following my expressed interest in this product (Cetyl Myristoleate). I was asked to participate in a clinical study on animals in my practice, with an emphasis on its use for arthritis. This presentation will cover the history, chemistry, a summary of clinical studies with humans, my own clinical study with animals, and some insights as we apply the known information to animals as veterinarians.

## What Is Cetyl Myristoleate?

Cetyl Myristoleate (CMO) is the common name for cis-9-cetyl myristoleate. It is a refined waxy ester compound made from two items: a long chained alcohol molecule: cetyl alcohol, and the fatty acid: myristoleic acid. It is found naturally in nature in certain animals, including white mice, beavers, and the sperm whale. The mode of action appears to be three-fold: 1. anti-inflammatory, 2. surfactant, 3. repolarizer of disfunctioning cells. As a fatty acid it mediates the anti-inflammatory process resulting in a reduction of pain. As a surfactant it lubricates the joints, and the entire body, causing muscles to slide more smoothly over other muscles, bursas and bones. And as a repolarizer of disfunctioning cells it functions as an immune system modulator; and for this reason has been found effective in treating certain of the autoimmune diseases such as rheumatoid arthritis and systemic lupus.

## A Short History

The story began in 1962 with Harry W. Diehl, a researcher and chemist for 40 years with the National Institute for Health. He had given himself the personal assignment of finding an answer for arthritis. In his own laboratory, and on his own time, he began the project. A strain of mice had been donated for the project. The protocol required creating arthritis by injecting into some laboratory animal with a Mycobacterium referred to as Freund's Adjuvant, which will induce arthritis in most mammals. However this group of mice did not develop arthritis. This piqued Harry Diehl's curiosity: *What was different in the mouse that prevented them from getting arthritis?* Dr. Diehl had a driving personal interest in curing arthritis. For example a neighbor and friend had crippling arthritis, and \$100,000 later was only worse, and finally died in crippling pain. He was determined to find a cure—something better than the currently available drugs from the pharmaceutical industry.

As a researcher, Harry Diehl worked on the project for many years, all of it at his own expense. Apparently there was little interest in finding a natural substance, and no funding was available. But in his own home laboratory, after months of hard work, late into the night, after extracting hundreds of substances from the mice, Dr. Diehl finally isolated the substance unique to these Swiss Albino Mice. This was the substance which apparently made them immune to arthritis, a fatty acid ester now known as cetyl myristoleate. The next step was to see if this fatty acid would prevent arthritis in other animals. He proceeded to inject it into rats that he knew could develop arthritis, and then injected them with Freund's Adjuvant. This group remained arthritis free, while gaining 80 grams (5.7 times the weight of the control group) during the 32 day period of observation. The group that received only Freund's Adjuvant (the toxin) developed severe swellings of the joints, and within 10 to 13 days full blown arthritis. They gained only 14 grams during the 32 day observation period, and were



morbid and lethargic.

What should have been recognized as a breakthrough in arthritis research, and funded with intense interest, was instead shelved due to lack of interest, in a natural substance which could not be patented. The project was shelved for some 25 years, when in 1991 Harry Diehl himself developed osteoarthritis in his own hands, knees and feet. Remembering his research, he decided to try the discovery on himself, applying one gram of this substance on his body with 10 parts DMSO. His arthritis symptoms disappeared completely, with a short recurrence 5 years later, and a second treatment again put all symptoms into remission. In March 1994 he made his discovery public by publishing his research in *The Journal of Pharmaceutical Sciences*.

### **Brief Overview of Clinical Studies**

The original studies were done by Dr. Diehl on his own family and friends. According to Diehl relief of symptoms occurred about 60% of the time, some of them experiencing a total cure. This included both osteo and rheumatoid arthritis. As time went on it was recognized that other forms of disease responded, including fibromyalgia, non-infectious prostatitis, Crohn's Disease, sciatica, tendonitis, psoriasis, lupus and others.

In 1996 a large double-blind placebo-controlled study was completed under the auspices of the Joint European Hospital Studies Program on 431 patients. Results ranged from 63.3% to 87.3% effectiveness. The 63.3% group received cetyl myristoleate alone. The higher group received in addition glucosamine sulfate, hydrolyzed cartilage and Sea Cucumber along with a topical lotion. There were also two placebo control groups with an average of 14.5% relief. A criteria for entering the group included stopping the use of tobacco and/or caffeinated beverages, and stopping the use of steroids, because it had been determined that these substances interfered with and depressed optimum results when using these natural substances. It had also been determined that cetyl myristoleate was non-toxic in both the natural and synthetic form, even in very high doses; and in this study also, there were no complaints of side-effects.

In the short time since cetyl myristoleate has been commercially available, several popular articles and books have hit the press. *Boom, You're Well*, published in 1996 by Douglas Hunt, M.D. first peaked my interest, proclaiming Cetyl Myristoleate (CMO) as nearly a "cure-all" for every chronic degenerative disease known to mankind! And indeed I was excited and nearly convinced also! We medical people can be gullible also! A second booklet: *Dr. Chuck Cochran Discusses Arthritis & Cetyl Myristoleate*, revised in March 1997, gave a more balanced view including a personal testimony of having to give up his chiropractic practice prior to glucosamine, and then his most significant breakthrough with CMO.

Dr. Cochran in his book, and also in a personal conversation, feels over 60% of his arthritic clients respond excellently, some permanently cured, with a SINGLE ONE MONTH TREATMENT with CMO. He also believes in long term dietary support to heal chronically degenerated joints, including the use of MSM, glucosamine, sea cucumber and hydrolyzed cartilage. These supplements appear to synergize and complement each other, with the CMO, doing together what none of these could - accomplish individually or separately. Or as Dr. Cochran captures it in his booklet: "However fantastic this product (CMO) is, its effectiveness can be improved by another 10% to 20% by adding a few additional natural ingredients. In nature, we observe that nothing works or stands alone. There is always a collaboration or supporting complimentary action which makes things happen. This interaction, when the total effect is greater than the sum of the individual effects, is called synergism".

### **Protocol for Animals in My Study**

The Cetyl Myristoleate (CMO) for my study was supplied by EHP Products of Ashland, KY, daughter and son-in-law of Harry Diehl. This product (trademark "Myristin") contains pure cetyl myristoleate plus several mixed esters and oleates used in the original study by Dr. Diehl.

Because we are dealing with an oil which must be assimilated to be effective, and oils are



also synergistic in supporting the immune system, we decided on the following protocol, per 40 to 60 pound animal:

1. Three CMO capsules daily, for 7 days, wait 2 weeks, and give the remaining CMO capsules, for a total of 42 capsules. These were given separate from meals.
2. During the 30 day trial either a balanced digestive enzyme containing lipase or a Hi-Lipase enzyme was given to be sure the oils were digested and assimilated.
3. Vitamin E was given in the form of alpha tocopherol, 400 I.U.
4. Omega 3 Fish oils or sometimes Flax seed oil, if they were already on it, was given: approximately 1000 mg. of fish oils or 1 tsp of flax oil per 40-60# body weight. No other changes or supplements were given in addition to those the animal were already taking prior to the study.

### Animal Selection

Being vigorous and confident, my first selections for this study were selected from among the failures of my previous treatments! As a holistic veterinarian I have had a high level of success with osteoarthritis and hip dysplasia using supplements (Mega C Plus, Cell Life, A.C.A., Glycoflex, etc.), homeopathic remedies, acupuncture, chiropractic, bio-magnets, and proliferative therapy injections. Approximately 90% respond excellent to curative. Owners, have been ecstatic. However as we all know, there are always refractory cases in everyone's practice, often older pets, who for unknown reasons do not respond. These are the challenges of each practice—you do all you know to do and there is poor to partial—but unsatisfactory response. So these I choose to be my star responders to the CMO protocol! Imagine my disappointment when they did not respond!

We decided to enter 12 to 15 animals in the study. The first 6 included 5 older large dogs, and a horse with known chronic arthritis, but who 6 months earlier suddenly stiffened with a problem of unknown (undiagnosed) etiology. He had been to the university and been subjected to nearly every test available, a suspect of EMP protozoa, and all treatments had failed. Called in by the owner, I diagnosed Lymes disease with a high positive blood titer, somehow missed by the professors, and the treatment was at first responsive, then digressed. Concurrently we used every form of supportive therapy that was practical, including acupuncture, chiropractic, homeopathy, supplements, etc. No Results. Enter CMO. No results. Very disappointing! These were my first 6 cases!

### Anatomy of a Vet's Clinical Trials

Enter "Abacoo", a 15 Year Old Beagle Cross with Arthritis, Heart Failure, and Old Age, Unable to Get up from a Sitting or Lying down Position, Who Walked and Moved Very Slowly. Three years in this condition. Loved by his owner, a medical nurse. I had seen Abacoo once, and he was the terror of every vet's office, howling, leaping at vets, biting with a vengeance. Not a candidate for acupuncture, nor chiropractic nor proliferative therapy injections! What do we have to lose, let's try CMO! Within one week Abacoo was walking 2 miles, walks up steps, is happy about life, and in general the medical nurse owner rates him as 90% improved. She was ecstatic, and so was I!

The sister of this nurse had a German Shepherd diagnosed with panosteitis. Also the history of jumping out of the truck at 7 weeks of age. The symptoms were primarily expressed in the front leg and ankle. However after one year there was no improvement. I had completed acupuncture, chiropractic, and several supplements that had quickly resolved other cases of panosteitis in my practice, with no results after 6 months. The owner wanted to try The CMO protocol. In two weeks the Shepherd was 90% improved, and by 45 days was 100% normal.

I have several other animals currently on the CMO protocol. One is a Cocker Spaniel owned by a Chiropractor presented with a lumbar disk prolapse and paralysis. "Kelly" responded quickly to the treatment and is now walking nearly normal. Several others are "improving" or I am waiting for the final reports, having to meet the Proceedings "deadline", and will have that final information ready for the Conference.



Occasionally I do phone consultations. A 7 year overweight Basset Hound has a history of arthritis, but was nonsymptomatic until recently. The left rear hip was tender on extension of one month duration, with pain on walking. The Hound had been on a natural raw food diet. After two days on the CEO the owner reported dramatic improvement and normality, and that has continued now for several months. A second dog, a 12 year old Chow, had a history of major arthritis and stiffness. Glycoflex and Cosequin had been of no help. Adding CMO as a supplement made a significant difference, according to the owner. I had heard numerous other anecdotal reports, in addition to these.

### Comments and Conclusions

Although not recognized as "true science", as wholistic healers we are in a class by ourselves—in the sense that "double blind" large studies on the university level are seldom attempted for natural products because of the lack of financial incentive. Unfortunately some of our progress and success must rely on the interchange of our experiences, as well as small scale clinical studies, an intuitive right brain, a left brain that is seeking after truth, and supernatural guidance!

Also unfortunately, it is often difficult to separate fact from fallacy, and truth from falsehood. This is fully as true with orthodox science as it is with folklore medicine. Even today we know dozens of cases of yesterdays "proven science" that has been discarded by further study, time and truth. Probably 50 or 100 years from now much of today's science will be discarded. Or consider this shocking admission at a recent medical school graduation by the robed academic speaker: "Half of what we have taught you in medical school is untrue. The only problem is we don't know which half!"

Where do I currently stand with CMO? Open, optimistic, and with reserve! CMO is not a cure-all! As clinicians we have to judge every case on its own merit, its history, the owners preferences, a proper medical diagnosis, and our own good judgment! I would offer the following suggestions:

1. We will never find a *single cause* nor therefore a *single cure* for many of the dietary and autoimmune complexes and deficiencies we face in today's world. Therefore, with Dr. Cockran, I believe CMO may have high usefulness in the various forms of arthritis, but will work best in conjunction with pure food and water, elimination of allergic foods and environmental stresses, *as well as* other dietary supplements including glucosamine, Vitamins C and E, collagen, glandulars and extracts, MSM, etc.
2. As clinicians much of what we do is both objective as well as subjective and empirical. I am convinced that cases which are refractory (they don't respond!) have many reasons.
  - a. Our expectations are too high—we have the cure-all mania!
  - b. Animal individuality. Two pets with the same symptoms actually have different underlying causes.
  - c. Chronic unresponsiveness due to a history of other treatments—blocking agents including drugs, chemicals, contaminants, poor quality foods, or emotional/immune stress.
  - d. Leaky gut syndrome—autotoxemia and malabsorption due to toxins, drugs, dysiosis, or a ferret whose owner gave a little Coke everyday—the ferret insisted on it!
  - e. The story of "Pottenger's Cats"—we are now on third and fourth generations of pets on cooked, commercial, city foods! Genetic reprogramming at the cellular level is taking place, including organ and birth defects—the "sins of the parents" eating habits plus our own! Therefore we do need some of these "super foods", including CMO, to help reverse the current ills that we are facing in modern veterinary medicine!
3. Cetyl Myristoleate, according to clinical studies, has been between 60 to 80% or more effective in reversing all forms of arthritis in humans. Some writers insist in using the word cure, meaning the permanent remission of symptoms. So far in animals we do

not have a large enough data base or experience, to draw final conclusions. It is my hope that as veterinarians we will remain open to a product which has a natural source in nature, is nontoxic even in high dosages, and has been effective in humans, including myself!

SOURCES:

Source for Cetyl myristoleate (CMO) "MYRISTIN" used in this study: EHP Products, P. O. Box 1306, Ashland, Kentucky 41105 Tel. 606-329-9339, or 888-347-0100.