

## Joint Complex and Cetyl Myristoleate information

**Harry W. Diehl, Ph.D** is best known for his research into Arthritis pain relief, during which he discovered the chemical compound, [Cetyl Myristoleate \(CM8\)](#). Harry was born in 1910 in Harrisonburg, VA. He was considered by many as one of the most brilliant natural talents in modern medical chemistry. An award winning researcher, Diehl developed over 500 new compounds, several of which were patented by the U.S. Patent Office. Diehl was recognized in 1958 for developing a new method of preparing 2-deoxy-d-ribose, a sugar found in deoxyribonucleic acid. This sugar is of vital importance in biochemical research, and was used by Jonas Salk, M.D., as a culture medium to grow the Salk polio vaccine virus. Diehl's process was published in ***Biochemical Preparations***, one of the most authoritative journals on the subject.

## Harry Diehl: Career

For over 40 years of dedicated service to the US government, Dr. Diehl worked for the prestigious , **National Institutes of Health (NIH)** in the Laboratory of Chemistry of the National Institute of Arthritis, Metabolic, and Digestive Diseases located in Bethesda, Maryland. In 1964, at the age of 40, Mr. Diehl became concerned about a neighbor's pain and disability from rheumatoid arthritis. His condition deteriorated over time until he became disabled. The neighbor had a family to support, but his arthritis made that impossible. Diehl was a deeply religious man whose feelings overwhelmed him as his friend's condition worsened. Harry thought, "Here I am working for the US Government at the National Institutes of Health, and I have never seen anything that was good for curing arthritis." He decided to take the initiative to establish a laboratory in his home to immerse himself and embark on a search for something to relieve the pain and disability of his neighbor and the millions of people who suffer from arthritis.

As a researcher, Diehl knew that finding a cure for arthritis first meant inducing the disease experimentally in research animals. He started with mice, and quickly realized that he was unable to induce arthritis in them. Diehl said he tried every way he could to give those mice arthritis, but they just would not get it. Then, he contacted a fellow researcher in California who wrote to him, "If you or anyone else can give mice arthritis, I want to know about it, because mice are 100% immune to arthritis." At that moment, Diehl's research instincts told him that what he wanted was already somewhere in those mice.

## Harry Diehl: Discovery of CM8

Utilizing thin layer chromatography of methylene chloride extract from macerated mice, Diehl noticed a mysterious compound. It was a long, tedious job, working on his own in his spare time, but Diehl finally

found, isolated, and identified the extract. It was cetyl myristoleate – and it protected mice from arthritis. Now having isolated the compound, Mr. Diehl went about molecular recreation of it. This meant that rather than destroying mice to get a quantity of this amazing molecule, Harry had learned to make it in the laboratory. Cetyl Myristoleate could be made synthetically by chemically combining cetyl alcohol, with myristolic acid and he found that this synthesized form of Cetyl Myristoleate was just as effective in providing rats immunity to adjuvant-induced arthritis as the naturally occurring form (extracted from mice).

To test his theory that mice are immune to arthritis because of cetyl myristoleate, Diehl began to experiment on laboratory rats. The next step was to use the substance to prevent arthritis in other animals. Harry injected it into two groups of rats that he knew developed arthritis when injected with Freund's adjuvant. He was pleased to find that the group of rats also injected with cetyl myristoleate remained arthritis-free, and grew an average of 5.7 times as much as the control group that was not given the cetyl myristoleate, and which had in fact developed arthritis. This research was reported in an article written in conjunction with one of his colleagues at NIH in the *Journal of Pharmaceutical Sciences*. In summary, this paper reports that ten normal mice were injected in the tail with arthritis-inducing Freund's Adjuvant (heat-killed desiccated *Mycobacterium butyricum*) to which rats and certain other rodents are susceptible.

Diehl's research findings on cetyl myristoleate were published in the March 1994 issue of the *American Journal of Pharmaceutical Sciences*, the prestigious peer review journal of the American Pharmaceutical Association and the American Chemical Society (VOL 83, #3, March 1994, pages 296-299). Mr. Diehl subsequently received three U.S. Patents for "use" on cetyl myristoleate, the first in 1977 on cetyl myristoleate, the second in 1978 for the treatment of rheumatoid arthritis, and then in 1996 for the treatment on osteo-arthritis. After receiving his first "use" patent, Mr. Diehl immediately approached the pharmaceutical industry with his amazing discovery. Unfortunately, none of the pharmaceutical companies were interested in his discovery, probably because cetyl myristoleate was a natural substance and therefore could not be granted a "product" patent, which meant that there would not be any exclusivity and the drug firms couldn't make billions of dollars. Being a scientist and not a marketing person, Mr. Diehl knew of no other way to bring Cetyl Myristoleate to the public, and consequently his discovery sat on the shelf collecting dust until 1991 when he, himself, started developing arthritis.

As Diehl got older, he began to experience some osteoarthritis in his hands, knees, and the heels of his feet. His family physician tried the usual regimen of cortisone and non-steroidal anti-inflammatory drugs without much effect on the course of the disease. Finally his physician told Harry he could not have any

more cortisone. "So," Diehl said, "I thought about my discovery, and I decided to make a batch and use it on myself." He did, and his symptoms of osteo-arthritis disappeared. Many of his family members and friends became aware of the relief Diehl got from his discovery, and they wanted to try it, too. Before long, family members and friends grew into customers, and cetyl myristoleate appeared on the market as a dietary supplement in 1991. Since then two clinical studies have been performed on over 500 patients with various forms of arthritis, which confirm the success of CM8 for the treatment of arthritis.

The chemical formula for cetyl myristoleate is (Z)-ROCO(CH<sub>2</sub>)<sub>7</sub>CH =CH(CH<sub>2</sub>)<sub>3</sub>CH<sub>3</sub>. Cetyl myristoleate was unrecorded in chemical literature until Diehl's discovery was reported. To this day, the current Merck Index of Chemicals does not even list cetyl myristoleate.

## Harry Diehl: Death

Harry Weldon Diehl died after a short illness in Charlottesville, Virginia on December 22, 1999 at the age of 89. In life, Harry Diehl was a tower of strength.

### Resources:

1. Diehl, H. W. and Fletcher, H. G., A Simplified Preparation of 2-Deoxy-D-ribose Based on Treatment of a-D- Glucose Monohydrate with Solid Calcium Hydroxide, Archives of Biochemistry and Biophysics, Vol.78, No. 2, Dec. 1958
2. Wright, M.D., J., and Gaby, M.D., A, Nutrition and Healing, August, 1996, Vol.3, Issue 8, paraphrase from page 5.
3. Private correspondence to H. W. Diehl, Rockville, Md. from Dr. Fay Wood, Univ. of Cal., Berkeley, 1969
4. Diehl, H. W. and May, E. L., Cetyl Myristoleate Isolated from Swiss Albino Mice: An Apparent Protective Agent against Adjuvant Arthritis in Rats. Jour. of Pharmaceutical Sciences, Vol.83, No. 3, Mar, 94 pp296-299.
5. Murray, M. T. Encyclopedia of Nutritional Supplements, Prima Publishing, Rocklin, CA 1996 p. 237
6. Sobel, D. and Klein, A. C..Arthritis: What Works.St. Martins Press, New York, NY. pp.221-225

# What is CM8?

CM8 is the shortened version or “street name” for Cetyl Myristoleate. Conversely, cetyl myristoleate is the chemical name describing the makeup of CM8.

## CM8 All Natural Compound Developed with Arthritis in Mind

Cetyl Myristoleate, is an all natural compound, useful for arthritis and joint pain treatment. CM8 is excellent for treating and even preventing joint pain, arthritis, osteoarthritis, rheumatoid arthritis (RA) and even gout and fibromyalgia. To quote from [Wikipedia](#) ” there is a growing awareness that CM8 equals or surpasses them (glucoasmine & chondroitin) in the treatment of the body pains brought on by various maladies such as bursitis, gout, osteoarthritis, rheumatoid arthritis, fibromyalgia, and sports related injuries.”

Cetyl Myristoleate Complex is a unique blend of fatty acid esters containing the highest and most bio-available concentrations of Cetyl Myristoleate available today. This comprehensive blend of active fatty acid esters is accomplished by using proprietary distillation and crystalization processes designed to eliminate inert fatty acids found in raw materials and increase only the physiologically active components.

Cetyl Myristoleate Complex is the final result of years of clinical research, exploration of various raw materials and unique isolation techniques, and countless hours of investigation into optimum delivery systems. It is traditionally supplied in a fine powder for capsuling and tableting. Scientists theorize that the fatty acid ester is somehow incorporated into the phospholipid cell membranes, thus altering cell membrane permeability and receptor sites.

## CM8 and the human body

We can clinically observe Cetyl Myristoleate’s effects. It seems to function, in at least, four different ways. One of the first observations noted when taking Cetyl Myristoleate is the lubricating qualities of CM8. Decrease or loss of morning stiffness is commonly noted shortly after commencing treatment.

Second, it functions as an anti-inflammatory. Lessening of swollen digits is usually observed as soon as the second or third week of treatment.

Third, it functions as an immunomodulator. Its ability to regulate or calm down hyper-immune responses is the most exciting quality and should be included in any program addressing autoimmune diseases.

And finally, CM8 functions as an analgesic, or pain killer. The decrease in pain follows the decrease in inflammation and may be due to its anti-inflammatory qualities.

## **Can I go out and buy CM8?**

After learning about the scientific properties and clinically proven capabilities of CM8, your first thought might be to run off and buy a large quantity of CM8 powder and ingest it as fast as possible. However, effective assimilation into the body is not one of the benefits of CM8. However, when combined in the proper dosage with components (such as glucosamine) which break it down rapidly in the body, CM8 can be “sculpted” into a capsule to bring maximum effectiveness in all four of its clinical effective functions.