

## ABSTRACT

The Food and Drug Administration (FDA) was set up in 1906 for consumer protection from unsafe and mislabeled food and drugs. The Dietary Supplement Health and Education Act (DSHEA) was passed on 1994. It amended the Federal Food, Drug, and Cosmetic Act, establishing a specific regulatory framework for dietary supplements, distinguishing them from drugs. DSHEA aimed to ensure consumer access to a wide variety of dietary supplements while providing consumers with more information about their intended use. In the current regulatory environment, the health benefits of food and supplements are substantially neglected while the products of the pharmaceutical industry corral the attention of both doctors and patients. I am writing a book about the many problems because of these regulations that increase medical costs and human suffering. This poster lists the topics of the book, and summarizes the challenges we face in educating the public about the benefits of diet, exercise, and environment while trying to avoid legal challenges. Chapters describe my initial FDA experience in 1994 when I found the optimum dosage of vitamin C, 500mg twice a day. Then I discuss FDA challenges when educating people to reduce the risk for strokes, cancer, arthritis, ulcers, baldness, muscle injury, acupuncture, herbal remedies, protein misfolding, weight loss, sunscreen, depression, and nutritional supplements. Reducing medical expense and human suffering through nutrition education is a goal I have shared with the Linus Pauling Institute since 1984.

## INTRODUCTION

In April, 2025 I spoke with a nurse about seeing my doctor to prevent me from getting arthritis, based on an article in Science (4 Apr 25) pg 30 - Ursodeoxycholic acid may prevent arthritis. She asked, “Why don’t people tell us about this?” I explained that the procedure was not yet FDA approved. That inspired me to begin planning to write this book, ***Not FDA Approved***.

In 1980, as a new biochemistry professor, I considered what my research would be. I chose one of the greatest mysteries, why do we age? The theory then was the free-radical theory of aging proposed by Denham Harman (Harman 1992). Free radicals are loose electrons generated in the mitochondria in all of our cells. These free electrons oxidize whatever they encounter, causing mitochondria to fail, DNA to mutate causing cancer, and LDL to oxidize generating plaque causing heart attacks and stroke. Twice Nobel Prize winner Linus Pauling suggested we take mega-doses of the antioxidant vitamin C, which would inactivate the free radicals before they cause damage, but he could not decide how much. That led me to discover the optimum dosage of vitamin C (Beins 1994). That dosage is 500 mg twice a day, every 12 hours. I was the first to discover that other water-soluble vitamins wash out of our blood in about 12 hours. The story became the banner headline on page 1 of USA Today around the world (Figure 1). The article appeared during the era when everyone was concerned about AIDS. I believe the reason was a joke I told, “this shows taking vitamin C only once a day is like wearing a condom half the time.”

My research and reading continued as I learned that nutrition is one key to maintaining good health. I started a web site, nutritioninvestigator.org, now grown to over a thousand pages. And then I began a newsletter, for my students, then their families and my friends, and now thousands of people and professionals around the world. The weekly newsletter is a single computer screen. It has sentences about each of the topics in my reading that week which I found exciting. Below these short notes are long notes, with short summaries of the headlines and links to online professional sources.

I have two slogans. First, it is easier to stay healthy than to get healthy. Reading the newsletter weekly will help you do that. Second, when I am a hundred and thirty, you will realize I have provided good advice. The information I am sharing is not my opinion, but scientifically and medically based results.

Previously, I was invited to contribute an article (Ordman 2022), When Will the FDA Do What Is in People’s Best Interests? (Figure 2). All of these experiences have led me to writing this book.

## CHAPTERS

C0. Introduction – DISCLAIMER, and why I decided to write this book.

C1. Personal Health Corporation and Vitamin C -500 mg of vitamin C (VC) twice a day is the dosage I discovered in 1994 that gives the highest concentration of VC in the blood, that helped me to form a corporation, PHC, that was not allowed to claim benefits of vitamin C.

C2. Stroke –This vitamin C level may provide substantial protection to the brain from stroke. People in Japan are aware of this, but the US and FDA are not.

C3. Cancer - Vitamin C may prevent cancer – With Dr. Tracy Downs, I developed a supplement that prevents the recurrence of superficial bladder carcinoma. About 20,000 people in the US die from recurring bladder cancer each year. But the FDA has not approved this, though I have published a scientific peer-reviewed article explaining how and why it would save lives. The current BCG treatment is expensive and only 10% effective after 5 years.

C4. Arthritis – Arthritis in joints can be significantly relieved by PRP injections. This process involves removing a few vials of blood from the patient, quickly isolating the platelets, and injecting them into the affected joint. One injection provides great relief that may last a couple of years and then be repeated. It postpones and may even eliminate the need for knee replacement surgery. And an article in Science on 4 April 2025 (Liu 2025) explains how a drug, ursodeoxycholic acid (UDCA) prescribed for gallstones is likely to prevent arthritis. We once believed that ulcers were caused by stress. Now we know it is a bacterial infection, though it took 20 years for the FDA to accept that. Most people currently believe arthritis is caused by wear-and-tear, but the Science article proves it is actually a metabolic disorder that a simple medication can correct.

## Not FDA Approved

Alfred “Roc” Ordman, Professor Emeritus, Dept. of Biochemistry, Beloit College, Beloit, WI  
Chief Scientist, Triumph Health Corporation. ordman@beloit.edu

### Figure 2: When Will the FDA Do What Is in People’s Best Interests?

**“The national effort to reduce the incidence and severity of cancer and other chronic diseases in the United States has suffered from political influences that undermine the interests of the public. As one example, the medical profession has not made adequate use of nutritional information to improve the health of the population. Daily values for vitamins were established in the United States during World War II, when the goal was to avoid short-term deficiencies so soldiers could continue to fight. But there is more to health than short-term survival. Linus Pauling advocated megadoses of vitamin C to reduce the risk of cancer and to improve long-term health. Despite numerous studies demonstrating that better nutrition and exercise are vital to a longer span of good health, the U.S. Food and Drug Administration (FDA) does not permit claims to be made about the health benefits of specific nutritional supplements. The FDA is responsive to political pressures, including pressures to reduce public knowledge of supplements and their benefits. Pharmaceutical companies contribute to members of Congress to influence health policy. Those companies promote legislation and regulations that favor the use of expensive medical treatments and that limit the provision of cost-effective public health measures. This article reviews many examples of failures of our current medical system, and methods that could prevent the current expense and suffering in this nation.” (Ordman 2022).**

C5. Ulcers - Peptobismol for ulcers -People and doctors thought ulcers were caused by stress. In 1972, the first patient was cured of ulcers by taking an antibiotic. In 1984, Marshall and Warren published a study demonstrating that bismuth can help eradicate ulcers. Bismuth is an antibacterial agent, although this was not recognized by the FDA. In January of 1983, two letters authored by Warren and Marshall, respectively, were sent to The Lancet describing their results. But the Gastroenterological Society of Australia in 1983 rejected Marshall’s abstract to present his research at their yearly conference. They deem it in the bottom 10% of papers submitted. The abstract was accepted for presentation at a Campylobacter workshop in Brussels. An infection by Heliobacter pylori was discovered to be the

cause of peptic ulcers by Dr. Barry J. Marshall and Dr. Robin Warren, published in 1984 . I fought in the first Gulf War in Saudi Arabia, and was developing an ulcer. The doctors wanted to prescribe me a tranquilizer to relieve my stress, but I had my wife mail me peptobismol, and that cured me. As of February 1997, three *Helicobacter pylori* regimes were at last been FDA-approved for eradication of *H. pylori* in infected patients with active duodenal ulcers. People need to learn that for an upset stomach, taking peptobismol is likely to prevent ulcers.

C6. Baldness – I was fortunate to be on sabbatical in Switzerland in 1989 helping develop the drug finasteride. While its main purpose is to retard the growth of the prostate gland in men, the side effect is that it slows male pattern baldness. I have taken it since 1990, and have retained much of my hair, while my brother became completely bald decades ago. Then recently it was discovered that minoxidil, taken orally, causes regrowth of hair. It was once used topically, and had no effect, despite its commercial price. But it turns out orally it is very effective.

C7. Branched chain amino acids (BCAAs) for muscle healing – BCAAs stimulate muscle growth. I had shoulder surgery in August, 2024. The doctor said it would result in severe pain for at least two weeks until it began to heal. I took BCAAs that stimulate muscle repair, and the pain substantially went away in two days. Dr. Milos remarked, “I should suggest that to all of my patients.” But it is not FDA approved.

C8. Acupuncture – A former student of mine, Dr. Yoon Kim, is a physician who has concentrated his career on acupuncture, and has a large practice. The needles used are FDA approved. But most people are unaware of how effective it can be by a properly trained physician. Unfortunately, there are many scam artists are who are not regulated by the FDA.

C9. Herbal remedies – My wife injured her knees recently. Our daughter who has taken classes in herbology prepared a salve that lessened her pain a lot. The FDA has few natural remedies like that. This chapter will discuss treatments that are effective, and how to investigate what is legitimate.

C10. Microbiome – Research on the microbiome has exploded in recent years. The microbiome may have substantial effects on depression, weight loss, and many other aspects of health. Yet there is little medical information shared about how to maintain a healthy biome, even though there are clear ways to maintain it, like eating fermented foods and fiber. Antibiotics destroy a healthy microbiome, so one must eat fermented foods, yogurt, and fiber during and after taking antibiotics. There are also many scam products. I discuss what is legitimate.

C11. Mito C – This is another supplement that is not FDA approved, because we could not get funding for clinical trials. But I have published a peer-reviewed scientific paper explaining how it reduces the rate of protein misfolding. That misfolding is a primary cause of dementias, especially Alzheimer’s and Parkinson’s.

C12. Weight loss - Wegovy, weight loss, metformin – There are now effective methods for weight loss that are expensive to obtain. Wegovy is covered by Medicare Part D when it is prescribed to reduce the risk of cardiovascular events (like heart attack or stroke) in adults who are overweight or obese and have cardiovascular disease. However, it is not covered for weight loss alone. Metformin also is considered an anti-aging drug, but is only available for people who have diabetes.

C13. Sunscreen – The best-selling sunscreen in Europe is unavailable in the US because it is not FDA approved. But it is safe, and works better than the US formulations.

### Figure 1: USA Today, Oct 18, 1994



C14. SAME – This is the most effective antidepressant. An article in the New Yorker reported that all other antidepressants were no more effective than a placebo. But SAME has a safe and proven mechanism. It is a natural substance that we make plenty of as children to regulate adrenalin. Its level decreases in us with age.

C15. Supplements should be regulated for contents - Supplements are not regulated by the FDA, only by a Federal law DSHEA from 1994, that is vague and deceptive. Since 2007, the FDA has identified more than 1,050 tainted dietary supplements (USDA2021), and analyses continue to identify synthetic drugs as product adulterants (Marcus 2016). It is estimated that 50% of botanical supplements do not contain the contents listed, and most botanicals do not contain any material from the plant. Of 44 herbal supplements tested, one-third showed outright substitution, meaning there was no trace of the plant advertised on the bottle — only another plant in its place. Many were adulterated with ingredients not listed on the label, like rice, soybean and wheat, which are used as fillers. People should be made aware of this, and attention drawn to the few reputable products and the 3 companies that certify the contents of nutritional products.

C16. Tips - Other useful medical tips most people may be unaware of a..Botox for migraines - Chronic migraine (CM) is a severely disabling neurological condition characterized by episodes of pulsating unilateral or bilateral headache. The United States Food and Drug Administration (FDA) approved onabotulinumtoxinA (Botox®) for the prophylactic treatment of CM in 2010.

b.. Routine supplementation with vitamin C slightly reduces the duration of the common cold in both children (14% reduction) and adults (8% reduction) (LPI 2025). Vitamin C and zinc to shorten the duration of colds – At the first sign of a cold, you should take 1,000mg of VC twice a day, and 80-92 mg of zinc, often divided into multiple doses.

c. Take 2,000 iu of vitamin D daily – Vitamin D produces molecules which are immunologically active and are your first line of defense from colds. Approximately 42% of adults in the US are deficient in vitamin D. The prevalence is even higher in certain groups, with 63% of Hispanic adults and 82% of African American adults experiencing deficiency. It is safe to take up to 10,000 IU daily. Yet in a survey of LPI attendees I conducted only 50% were taking vitamin D.

## METHOD

I submitted my book to publishers in late July. Newman Springs Publishing has offered to publish the book. But their price for editing, cover design, advertising and publicity is between 7-9 thousand dollars. Although I expect to sell enough copies to recoop the cost, I am exploring whether that hope is valid. It will take about 4 months to complete publication.

## CONCLUSION

Although I have written many personal manuscripts in the past, this has been my first effort to write a non-fiction book for general readers. I will have a link at my website, nutritioninvestigator.org, that will explain when it will be available and how to order it.

## REFERENCES

The book contains 97 citations to published medical and scientific peer-reviewed articles. These can be shared with medical experts to confirm that the information people share with medical personnel is legitimate.

Beins, M, Gavin King and Alfred B. Ordman. 1994. Excretion of Vitamin C in Human Urine", AGE 16 (4): 185.

Harman D, 1992. Free radical theory of aging, Mutat Res. 275(3-6):257-66.

Liu, C. 2025. Beyond wear and tear at the joint: Bile acid metabolism meets glucagon-like peptide 1 signaling in osteoarthritis. Science 388: 30-31.

LPI (Linus Pauling Institute), 2025. https://lpi.oregonstate.edu/mic/vitamins/vitamin-C#common-cold-treatment

Marcus DM, 2016. Dietary supplements: what’s in a name? what’s in a bottle? Drug Test Anal 8, 410–412.

Marshall, BJ and Warren, JR. 1984. Unidentified curved bacilli in the stomach of patients with gastritis and peptic ulceration. Lancet 323: 1311-1315 June 16, 1984.

Ordman, A B, 2022. When Will the FDA Do What Is in People’s Best Interests? The American Journal of Economics and Sociology, Vol 81: 721-751.

US Food and Drug Administration. 2021. Tainted products marketed as dietary supplements. https://www.accessdata.fda.gov/scripts/sda/sdnavigation.cfm?sd=tainted\_supplemen ts\_cder (accessed January 2021).