

studies run by medicine to test the Pauling Therapy: There have been none.”

A very good reading list is provided, although the “Resources” section may be leaning a bit to the proprietary side. And, there is a small error on p 91. The author cites a 1994 Pauling interview as being printed in JOM (the Journal of Orthomolecular Medicine), but it in fact was published by ION (Institute for Optimum Nutrition).

In some ways, to some readers, *Practicing Medicine Without a License* will prove to be an irritating book, especially to orthodox physicians and dieticians. The book is, above all, a personal statement by the author. It is frequently confrontational, and shamelessly assertive on every page. It has attitude. I like that, and furthermore, I recommend it.

—Reviewed by Andrew W. Saul

---

**Vitamin C: The Real Story. The Remarkable and Controversial Story of Vitamin C**  
by Steve Hickey, PhD, and Andrew Saul, PhD  
Basic Health Publications Inc., CA  
2008, 192 pages.

---

A curious title. Thousands of children take Flintstone multis every day; don't they get enough vitamin C? Many adults take some C when they have a cold and, even without supplements, don't most people eat enough vitamins and minerals in their fruits and veggies? What could be remarkable or controversial about vitamin C? Authors Hickey and Saul think we need to know the truth about vitamin C. Their fascinating book presents some truly remarkable discoveries, introduces us to vitamin C's multiple health-maintaining functions and outlines its health-restoring capabilities, while warning us about vitamin C factoids.

Steve Hickey, PhD and Andrew Saul, PhD present the facts clearly and carefully.

Readers will gradually realize that the vitamin C story has two dimensions. On the bright side, for decades, scientific and medical researchers have documented vitamin research, clinical progress and success. Books and medical journals explain that vital amines, as nutritional substances, are essential for health and healing. Over the past 100 years, a succession of scientific researchers studied the biochemistry of vitamin C and learned that vital amines help to maintain normal metabolism. They determined that minimal doses of vitamin C can heal scurvy and sustain life. During decades of follow-up research, scientists discovered that optimum doses of vitamin C have remarkable health-restoring capabilities. Researchers conducted clinical trials, detailed patient recoveries, corroborated findings and wrote journal articles and reference books. However, the vitamin C story also has a disturbing, dark side. Even though decades of research found vitamins safe and effective, millions of patients suffer and deteriorate while professional skeptics devalue the care provided by orthomolecular doctors (who complement standard treatments with therapeutic doses of vitamins). Rather than telling us the facts, certain health professionals dismiss the vitamin C research, ignore the progress reports, minimize vitamin C's health-maintaining functions and disparage health-restoring claims linked to vitamin C. These skeptics use factoids to support their denials, also outlined in this book.

Skeptics cannot rewrite medical history or hide the truth about vitamins. In the early 1900s, biochemists, physicians and researchers discovered that certain nutrients are essential for life. Test rats did not grow or develop unless their diets included vital amines (as vitamins were first described). Medical scientists determined that tiny quantities of vitamins are also necessary for human health. They

linked four diseases to vitamin deficiencies: beriberi to B<sub>1</sub>, pellagra to B<sub>3</sub>, scurvy to C and rickets to D. The history of medicine records the involvement of Christiaan Eijkman, Gerrit Grijs, Sir Frederick Hopkins and Casimir Funk. Dr. Eijkman and Dr. Hopkins received Nobel prizes for discovering that vitamins are essential for human health. Researchers then searched for the chemical identities of the essential nutrients. Dr. Szent-Gyorgi received a Nobel prize for discovering that vitamin C was ascorbic acid.

After discovering vitamins, clinical researchers wondered if essential nutrients might have clinical applications. If so, they needed clinical trials to determine the optimum doses. Scientific and medical professionals mapped the biochemical pathways and determined which metabolic processes required vitamins as co-factors. They quickly realized that a few milligrams of essential nutrients can sustain health but it took decades to discover that therapeutic doses of vitamins can restore health. Centuries ago mankind faced an epidemic of scurvy. Most people know that thousands of British sailors died during long voyages. In 1795, Dr. James Lind did the first clinical trial and discovered how to heal scurvy. It took many decades before sea captains finally added citrus fruits to ships' stores. British sailors who stayed healthy were then called limeys. What if cancer patients run low on vitamin C today; might these patients develop scurvy-like symptoms? Can megadoses of vitamin C help cancer patients? "Of course not," scoffed the skeptics, while orthomolecular doctors researched and discovered that optimum doses of vitamin C can indeed help cancer patients feel better and live longer. Other doctors discovered that therapeutic doses of vitamin C can help patients recover from life-threatening infections such as polio, pneumonia and AIDS, reduce toxic levels of lead and mercury and neutralize

toxins injected by the bites of venomous snakes and spiders.

Like a Swiss-army knife, vitamin C has multiple capabilities. When we pick up a Swiss-army knife for the first time, we expect to find large and small blades but we may not inspect it carefully. In an emergency, we happily discover that a Swiss-army knife comes with a versatile set of built-in tools: a screwdriver, a tooth pick, a cork screw and a file. After these tiny tools save lives, the word steadily gets out until the public knows that each Swiss army knife comes with life-saving tools. Consider the metabolic capabilities of vitamins as tools for restoring health. In milligram doses, vitamin C enables essential metabolic pathways to sustain life and heal scurvy. If taken in large enough doses when a patient has cancer, an infection or an overload of toxins, vitamin C can heal and restore health. The general public still does not know that vitamin C has lifesaving capabilities but the real story keeps coming out. Meanwhile, certain experts, who should know better than to publish false information, scoff at vitamin C research, forget its biochemistry, ignore its metabolic functions and refuse to prescribe it. Why don't scientific and medical experts study the vitamin C research, review the clinical trials, interview recovered patients and learn that therapeutic doses of vitamin C have proved safe and effective enough to restore health and save lives? How can trusting patients know if our doctors understand and apply the healing capabilities of vitamin C or rely on false factoids to withhold restorative care-by-vitamins? Patients and families, caregivers and health professionals have to read the real story to learn the facts for ourselves.

*Vitamin C: The Real Story* reminds us that a hundred years after the discovery of vitamin C, mankind is still researching vitamin biochemistry and developing medical applications. We understand that vital

amines, trace minerals, amino and fatty acids, hormones and many other nutrients are essential for sustaining life. We are still learning that optimum doses of vitamins can restore health. Orthomolecular health professionals know that vitamin C and other nutritional supplements, if given in the right doses, can help patients recover and live well. They routinely prescribe supplements and adjust the doses to suit each patient's diagnosis and biochemical individuality. Readers of this book will learn to distinguish the facts about vitamin C from factoids. Patients can ask their doctors about vitamin research, optimal doses and patient recoveries. Readers are cautioned to take care with their health. Anyone can read this book to learn the basic facts about vitamin C and then study its clinical applications: therapeutic doses of vitamin C can restore health when taken as recommended by qualified medical professionals who understand its biochemistry and know when to prescribe vitamin C as a complementary and restorative treatment.

–Review by Robert Sealey, BSc\*

### **A Short Vitamin C Reading List**

*The Cancer Breakthrough: A Nutritional Approach for Doctors and Patients* by Dr. S. Hickey & Dr. H. Roberts, 2007.

*Healing Cancer: Complementary Vitamin & Drug Treatments* by Abram Hoffer, PhD, MD, with Linus Pauling, PhD, 2004, CCNM Press.

*Orthomolecular Medicine for Everyone Megavitamin Therapeutics for Families and Physicians* by Abram Hoffer, MD, PhD and Andrew Saul, PhD, 2008, Basic Health.

*Vitamin C, Infectious Diseases & Toxins: Curing the Incurable*, by Thomas Levy, MD, JD, 2002, Xlibris Corp.

\*Author of Finding Care for Depression, Mental Episodes & Brain Disorders 90-Day Plan for Finding Quality Care  
www.searpubl.ca

Copyright of *Journal of Orthomolecular Medicine* is the property of Canadian Schizophrenia Foundation and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.