

# **Disaster in D Major**

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## **Preface**

I am writing this article because a disaster concerning vitamin D is quickly coming to light in the medical profession. In spite of the hundreds of articles in the best scientific journals in the world and in spite of clear warnings by all the world's top vitamin D experts, mainstream medicine seems to be ignoring vitamin D deficiency, especially among Blacks and the aged. People are dying needlessly.

I have practiced medicine 30 years, first as an emergency room physician, then as a general practitioner and now as a board-certified psychiatrist. I have been intimately involved in bringing issues like this to the public's attention before. In the late 1980's I discovered "The Lake Woebegone Effect," and issued a report that not only generated intense press coverage in the late 1980's ( <sup>1 2 3 4 5</sup> ) but continues to occasionally do so now. <sup>6</sup> "The Lake Woebegone Report," which I wrote and published with the help of a two Kettering Family Foundation grants, even generated a congressional hearing. <sup>7</sup> Unfortunately, and in spite of the intense media coverage, the problem of fraudulent commercial elementary ("Lake Woebegone") testing continues to this day.

In the 1990's I was involved in the "memory wars," the debate in the psychiatric community about whether memory of traumatic events, such as sexual abuse, are often repressed, or erased from the mind, only to be found again by a psychiatrist using recovered memory therapy. Although I published two papers on the subject, <sup>8 9</sup> it was by appearing as an expert witness in numerous tort law cases that I helped end the problem. By helping plaintiffs recover numerous verdicts against psychiatrists who used recovered memory therapy (including several multi-million dollar jury awards), <sup>10 11</sup> the practice ended almost as quickly as it began.

These two experiences, the "Lake Woebegone" battle and the "memory wars," convince me that the quickest way to stop needless suffering from vitamin D deficiency is to involve plaintiffs' attorneys early in the process.

## **Introduction**

The extent of the vitamin D disaster is quickly coming to light in the medical literature. It affects hundreds of thousands of people, leaving them with osteoporosis, heart disease, hyperparathyroidism, hypertension, diabetes, autoimmune diseases, diabetes, cancer, muscle weakness, chronic pain and, perhaps, even depression. It is a syndrome confirmed with a blood test (calcidiol).

The word "syndrome" is simply a "group of symptoms or signs typical of a disease, disturbance, condition, or lesion . . . a set of concurrent things . . ." <sup>12</sup> For example, "false memory syndrome," a syndrome first coined in the legal arena, but now widely used in the psychiatric literature. The American Medical Association was among the first organizations to condemn recovered memory therapy. Although the AMA did not use

the word, “syndrome” in their report, they described false memory syndrome perfectly in 1994,<sup>13</sup> before the suits started. In a way, by describing the false memory syndrome, the AMA paved the way for the suits.

Lastly, a disaster is an occurrence causing widespread destruction and distress, a catastrophe, a grave or extraordinary misfortune, an adverse or unfortunate event, a calamity or a serious mishap.<sup>14</sup> As you will see, vitamin D deficiency fits the dictionary definitions of both syndrome and disaster.

### **Vitamin D Deficiency**

The most respected expert in the world on vitamin D is Dr. Michael Holick of Boston University. Dr. Holick is a full professor in four fields (medicine, dermatology, biophysics and physiology) and frequently rumored to be in line for a Nobel Prize for his discovery of calcitriol, the most powerful steroid hormone form of vitamin D. Dr. Holick got right to the point recently:

“It is truly amazing that in the 21<sup>st</sup> century with all of the advances of modern medicine, that vitamin D deficiency has made resurgence not only in breast fed infants, but also in young, middle aged, and older adults. *Vitamin D deficiency and its consequences are extremely subtle, but have enormous implications for human health and disease. It is for this reason that vitamin D deficiency continues to go unrecognized by a majority of health care professional* (emphasis added). There needs to be a program to educate the public at large that not only should they be caring about their cholesterol levels, but they should also be aware of their vitamin D status, i.e., 25-hydroxyvitamin D levels.”<sup>15</sup>

Just in case Americans physicians missed that specific publication issue of the Journal, Professor Holick gave an interview to the New York Times in June of 2003. The Times article reported vitamin D deficiencies are common in the USA and are associated with osteoporosis, hypertension, multiple sclerosis, diabetes and cancer of the colon, prostate, breast, ovary, bladder, uterus, esophagus, rectum and stomach.<sup>16</sup> In fact, Dr. Holick is so concerned about widespread deficiency and resulting disease he was the first expert to write a popular book on the subject.<sup>17</sup> The same New York Times article goes on to quote another expert, Dr. William Grant of NASA, who says vitamin D deficiency causes 30,000 unnecessary cancer deaths a year.

Another recent article, this time in the British Medical Journal, reports that vitamin D (costing just pennies) given every four months cut fracture rates in the elderly by thirty percent.<sup>18</sup> A month earlier, a European expert on vitamin D, writing in the Journal of the American College of Cardiology, warned of critically low levels of vitamin D in patients with congestive heart failure (CHF). Professor Armin Zittermann concluded:

“The low vitamin D status can explain alterations in mineral metabolism as well as myocardial dysfunction in the CHF patients, and it may therefore be a contributing factor in the pathogenesis of CHF.”<sup>19</sup>

A few months later, Dr. Zittermann, apparently tired of beating around the bush, writes in the British Journal of Clinical Nutrition, that physicians are “ignoring the evidence”

about vitamin D and that ignorance is causing needless suffering from rheumatoid arthritis, osteoporosis, inflammatory bowel diseases, cancer, heart disease, hypertension, multiple sclerosis and diabetes.<sup>20</sup>

Dr. Bruce Hollis of the Medical University of South Carolina, another prominent vitamin D researcher, recently put it more bluntly:

“New scientific evidence suggests that the recommended daily allowance (RDA) for vitamin D should be much higher to achieve adequate nutritional vitamin D status, especially in the African-American population because of their pigmentation.”<sup>21</sup>

Such clear warnings are unusual for academic experts. Rest assured, none of these experts are advocates of alternative health care, vegetarians or health food nuts. They are all professors of medicine at prestigious medical universities who have slowly but steadily realized that a tragic error has been made by modern medicine.

To be certain, the technical language of scientific journals usually buries medical errors, safe from the prying eyes of plaintiff's lawyers. However, the blood test for vitamin D is so simple, the substance itself so cheap, the risk of treatment so minimal, and the death and disability caused by ignorance of the problem so enormous, that the polite language of academics is being abandoned.

Professor Robert Heaney is a tenured professor of medicine at Creighton University and the world's expert on calcium metabolism. Heaney and his distinguished co-authors, report, in the influential *American Journal of Clinical Nutrition*, that the Institute of Medicine's (IOM) recommendations for adequate intake of vitamin D:

“fall into the curious zone between irrelevance and inadequacy.”<sup>22</sup>

Why would Professor Heaney use words like “irrelevant” and “inadequate” to describe the 1997 National Institute of Medicine's (IOM) recommendations? Because recent scientific discoveries about vitamin D have shown the IOM made serious errors. Physicians are not addressing the tragedy, in part because the IOM is understandably reluctant to admit their mistake and thus correct the error.

In the same seminal paper, published in early 2003, Professor Heaney and his distinguished co-authors, published the first formal determination of vitamin D input required to maintain steady state levels of calcidiol, the storage form of vitamin D, in the blood. Their radical conclusion: we use 3,000 to 5,000 units of vitamin D a day, if we can get it!<sup>23</sup>

Why is this radical? Because the National Institute of Medicine says 200 to 600 units of vitamin D is adequate intake and more than 2000 units/day may be toxic. Scientists are even scared to use physiological doses of vitamin D in scientific experiments (although the brave ones are doing it anyway) for fear of offending the powerful National Institute of Medicine and even for fear of liability.

### **A Primer on Vitamin D**

Unlike most nutrients, medical students study the biochemistry and physiology of vitamin D intensely in medical school because of its crucial role in health and disease.

Moreover, vitamin D is not a vitamin at all because it is not found in the foods humans naturally consume. A hundred years ago, when we migrated out of the sun and into buildings, cars and layers of sun block, Northern Europeans realized that adding a teaspoon of fish oil to infants' diets helped them thrive. How did we decide how much to add? We guessed. Correctly, for infants, it turned out, but since the same dose was applied to adults, the adult dose was off by a factor of ten. This mistake continues to this day thanks to the National Institute of Medicine

Vitamin D is actually a precursor of an essential steroid hormone (calcidiol), made from pre-cholesterol in the skin to help regulate gene expression. More correctly, nature designed a system in which humans make thousands of units of a steroid hormone (calcidiol) within minutes of sun exposure so our body can then make an even more potent steroid hormone (calcitriol) to help regulate genes, apparently in every organ in the body. The question the IOM never appeared to ask itself: did Nature do this for a reason?

The evidence she did is overwhelming to my mind (the references not cited below are found in the above quoted articles). Support for the growing realization that humans need at least 3,000 units of vitamin D a day (from all sources) includes:

1. Recent studies by Professor Heaney and his colleagues conclude healthy men utilize between 3,000 and 5,000 units of vitamin D every day, if they can get it.
2. Humans living near the equator have serum calcidiol levels of more than 40, levels solar input of about 4,000 units of vitamin D a day. Humans in the natural, unclothed, state, such as lifeguards, have higher blood levels, even in temperate latitudes.
3. Excessive secretion of the parathyroid gland (secondary hyperparathyroidism) is almost nonexistent when calcidiol levels exceed 30 (requiring 3,000 units a day).<sup>24</sup>
4. Professor Heaney and his colleagues recently showed that calcium absorption increases as calcidiol blood levels increase. With blood levels of 34 (equivalent to about 3,000 units total intake), calcium absorption is 65% higher than when levels are 20 ng/ml. This implies that the reason Americans need so much extra calcium is because they are deficient in vitamin D. Speaking of calcidiol (25OHD) blood levels, the authors were unusually blunt, "We conclude that the lower end of the current reference range is set too low."<sup>25</sup>
5. Blood pressure is reduced significantly by ultraviolet radiation comparable to about oral intake of 3,000 units of vitamin D a day but blood pressure is not reduced by small amounts.
6. Daily doses of 2,500 units of D helped rheumatoid arthritis but lower doses did not. A low calcidiol blood level hastens the progression of regular arthritis (osteoarthritis).
7. Infants receiving 2,000 units a vitamin D a day were almost totally protected from developing diabetes 30 years later.
8. 5,000 units of vitamin D a day decreased the relapse rate in multiple sclerosis patients. Smaller doses had no effect. Multiple sclerosis is rare around the equator.
9. Two of the three positive studies that show a reduction in osteoporotic fractures with vitamin D treatment had final average calcidiol level in excess of 30 (a level requiring total vitamin D input of over 3,000 units a day). The third positive study used stoss (bolus) therapy of 100,000 units every four months. Studies with lower doses usually had no effect.

10. American women's breast milk (nature's perfect food) is deficient in vitamin D! The IOM say lactating women only need 600 units of vitamin D a day. Dr. Bruce Hollis is set to astonish the world with his discovery that breastfeeding moms need 4,000 units of vitamin D a day to sustain their infants.<sup>26</sup> Even 2000 units a day won't cut it. Dr. Hollis' findings are clear evidence that the lack of vitamin D in human breast milk is not due to nature's oversight; instead, the IOM got it wrong.
11. Humans make thousands of units of vitamin D within minutes of whole body exposure to sunlight. Young whites can produce more than 10,000 units in just a few minutes. From what I know of nature, it is unlikely such a system evolved by chance.

### **Vitamin D Deficiency**

Vitamin D deficiency is common in older adults, even using conservative calcidiol levels, with a reported prevalence of 57% of medical inpatients.<sup>27</sup> Fourteen percent of 1569 otherwise healthy urban adults had Vitamin D deficiency.<sup>28</sup> More than 20% of healthy young women have vitamin D deficiency and the prevalence was higher among nonwhites, as expected due to skin pigmentation.<sup>29</sup> Dr. Reinhold Vieth clearly pointed out that vitamin D supplements (such as multivitamins) or dietary vitamin D (such as dairy products) did not prevent the deficiency, in fact, the two were not even related! More recently, 42 percent of African American women were discovered to have vitamin D deficiency but only 4.2% of whites.<sup>30</sup> As early as 1992, other authors found a significant incidence of vitamin D deficiency.<sup>31</sup>

### **Vitamin D Toxicity?**

Isn't vitamin D toxic? Not if we take the same amount Mother Nature intended when we go out in the sun says Dr. Reinhold Vieth, of the University of Toronto. In many ways, 1999 is a key date in this potential tort because of his scholarly and extraordinary work.<sup>32</sup> He should have dispelled unwarranted fears in medical community of physiological doses of vitamin D in 1999 with his exhaustive and well-written review published in an important journal.

His conclusions: fear of vitamin D toxicity is unwarranted, and such unwarranted fear, bordering on hysteria, is rampant in the medical profession.<sup>33</sup> Even Ian Monroe, the chair of the relevant IOM committee, wrote to compliment Vieth's work and to promise his findings will be considered "at the time of a future Institute of Medicine review."<sup>34</sup> That was more than two years ago.

In 2001, Dr. Vieth directly asked the medical community to produce any evidence that 10,000 units of vitamin D a day was toxic, any studies, any patients, any research?<sup>35</sup> The silence has been convincing.

It is true that a few people may have problems with high calcium due to undiagnosed vitamin D hypersensitivity syndromes such as primary hyperparathyroidism, granulomatous disease or occult cancers but a blood calcium level, a parathyroid test and a calcitriol blood level would diagnose the hypersensitivity. Anyway, it would be excellent medicine to diagnose and treat those concealed conditions. Although D can be toxic in excess, the same can be said for lots of substances, like water.

As a psychiatrist, I know that psychotic patients should drink eight glasses of water a day. However, they could kill themselves by regularly drinking 80 glasses a day (called compulsive water intoxication). So you could say that water has a toxic to therapeutic ratio of ten (80/8).

Experts now say that humans should get about 4,000 units of vitamin D a day (from all sources) but 40,000 units a day may hurt them (over several years).<sup>36</sup> Therefore, vitamin D has a toxic to therapeutic ratio of 10 (40,000/4,000), the same as water. Although I'm not saying it is as safe as water, I am saying vitamin D is safe when used in the doses Mother Nature uses it.

You see, humans make thousands of units of vitamin D within minutes of full body exposure to the sun. Vitamin D production in the skin occurs in minutes and is already maximized before your skin turns pink, so we are not talking tans or sunburns here.

Fear of the fatal form of skin cancer, malignant melanoma, keeps many people out of the sun. The problem with the theory is that the incidence of melanoma continues to increase dramatically although many people have been completely avoiding the sun for years.<sup>37</sup> Remember, Dr. Holick is a professor of dermatology (among other things), and he says to go into the sun.

I am not saying sunburns are safe, they are not. All I am saying is that brief full body sun exposure (one-half the time needed to get a little red) is a smart thing to do if you don't want to take supplements. I am also saying your doctor should know enough about the latest medical research to discuss both options with you.

### **“Lake Woebegone”**

In 1985, I was a general practitioner in West Virginia. One day I picked up the Beckley Register/Herald to read that the West Virginia Superintendent of Schools was proud to announce that all fifty-five of his counties were above the national average on commercial elementary standardized achievement tests. The fifty-five county superintendents were proud too. Local school principals said it showed what a good job everyone was doing. The local newspaper ran an editorial congratulating both state and local officials. I read the “above average” story again and asked myself, “If West Virginia is above the national average, what state is below?”

I went to the library and studied up on “normed referenced” commercial elementary achievement tests. I discovered the commercial publishers are free to choose their own “norm group,” a group of students they decide is average and give those students the test cold (no test preparation). Then the publishers sell packets of test booklets, along with the norms and answer keys, to school officials who reuse the same booklets (with the same questions) year after year. Teachers told me that any administrator, who wants to promote, makes sure his teachers handle the booklets year after year (so the teachers can become familiar with the questions and teach the answers to their students).

I remembered depressed teen-age patients with self-esteem problems. Although their school test scores showed they were above average, they seemed illiterate to me. When I had them tested by an independent psychologist, on tests the teachers had never seen, the children scored well below average.

As an experiment, I called one of the publishers, pretending to be a school official interested in buying their test. I expressed concern my students might not be above average and I would look bad when the local press found out. The salesperson assured me that was unlikely to happen with their test because they are “careful with their norm group.” Nevertheless, if I was concerned, they could provide “low socioeconomic norms” with the test. The salesperson as much as guaranteed I’d be above the national average.

I was outraged. I suspected American lived in “Lake Woebegone,” Garrison Keillor’s mythical Minnesota town where “all the women are strong, all the men are good-looking, and all the children are above average.” I wondered about other poverty-stricken states. I went to my clinic and asked my x-ray technician, between patients, to call the state departments of education in Mississippi, Louisiana, Arkansas, South Carolina, Tennessee, Georgia and Kentucky. The answer was the same: “we are above the national average.”

Angry, I figured that if all those desperately poor states were above the national average, then all 50 states were probably claiming the same thing and maybe, just maybe, nobody knew it! As preposterous as it sounds, the U.S. Department of Education confirmed that they do not regulate or oversee commercial achievement testing in the USA. Secretary of Education, William Bennett, like all his predecessors, had no idea what the states were reporting to their citizens. It was not their business, the Department said, it was the for-profit business of commercial test publishers like McGraw Hill and Houghton Mifflin.

Therefore, I had my x-ray technician and lab technician collect the results from all 50 states. Sure enough, we lived in “Lake Woebegone;” all fifty states were claiming they were above the national average (Mississippi was close).

The national press was interested and I thought that would take care of the problem. The story got high-profile coverage on the New York Times, The Wall Street Journal, and hundreds of other newspapers.<sup>38 39</sup> *McNeill/Lehrer, Sunday Today* and *Sixty Minutes* ran stories.<sup>40 41 42</sup>

Nevertheless, as the years went on, nothing changed. The schools continued to give the tests, administrators proudly reported the scores and newspapers dutifully printed the “above average and improving” story all around the country.

The school administrators looked good, test publishers flourished and parents were delighted to learn that their Johnny was above the national average. Remember, all politics is local, and the politicians especially love looking good when their local schools are above average. A perfect con, everyone benefits, except the kids, often poor and black, being told they are doing OK when they are probably destined to graduate functionally illiterate.

What I couldn’t figure out, was why the intense national publicity didn’t change the system? Because I didn’t know enough to call the American Trial Lawyers Association, that’s why.

When McGraw Hill wrote me a letter threatening to “commence legal proceedings” against me, I should have known enough to sue them.<sup>43</sup> I didn’t know what I know now; a few well-crafted torts against the publishers would have changed everything. When

they are doing their real job, the ATLA is as important an agent of reform in American society as is the media. Tobacco litigation is an example. Disregarding the personal responsibility merits of tobacco litigation, no one can argue it hasn't changed America.

### **Recovered Memory Therapy**

Depressed over having wasted so much time, effort and money trying to improve public education, I left general practice and went back to school to become a psychiatrist. Almost immediately, I was overwhelmed by a fashion just gaining widespread popularity in American psychiatry: recovered memory therapy. Women, usually with good insurance, would go to a psychiatrist for depression or anxiety only to be told their problems stemmed from childhood sexual abuse, the memory of which they had repressed. They just thought they had a wonderful father; what they really needed was therapy twice a week to recover the sex abuse memories.

Overnight, recovered memory mills sprang up in some of the most prestigious hospitals in the country. Troubled women would enter with no memories of abuse only to leave with pornographic memories of the most hideous abuse imaginable, usually perpetrated on them by their family and often involving satanic cults. The experience would so damage the women many would seem to have multiple personality disorder, a newly recognized, and increasingly popular, diagnosis sanctioned by the American Psychiatric Association. Recovered memory therapy quickly became "standard care;" everyone was doing it.

The patients and their families paid dearly. The experience totally disabled the women and devastated the loved ones they accused. It did not seem to matter how absurd the memories were. Remember the stories about the elephant sacrifices in that little house in Manhattan Beach, California, known as The McMartin Preschool? Psychiatrists got the kids to remember that using recovered memory therapy.

It may have been standard care, but I knew hysteria when I saw it. However, it was hard to know who was more hysterical, the patients or their psychiatrists.

By this time I had been sued myself (dismissed on summary judgment) so knew a little about the law. I knew the American Psychiatric Association would never change the lucrative practice of recovered memory therapy. In fact, they were promoting it every year at their national conferences. Just like commercial testing, the government was not about to get involved. I knew the press would not solve it. I wrote several articles for professional journals but I doubted they would have any effect.<sup>44 45</sup>

Therefore, I studied some more and added an extra board certification, forensic psychiatry. I was now qualified to be an expert witness in a court of law. I decided to sponsor a seminar on recovered memory therapy. I invited leading academic psychiatrists from Harvard (Professors Skip Pope and James Hudson) and from Johns Hopkins (Chairman and Professor Paul McHugh), all of whom were critical of recovered memory therapy. I invited therapists, psychologists and psychiatrists. Then, I sat down and invited every attorney I knew.



Long story short, attorneys who attended that seminar filed dozens of torts resulting in numerous plaintiffs' verdicts, including the largest jury verdict in a recovered memory case (six million dollars) won by the best mental health trial lawyer I know, Skip Simpson of Dallas, Texas.<sup>46</sup> Another jury I testified to delivered 5 million dollars to a hapless family victimized by recovered memory therapy.<sup>47</sup> Although my court testimony hurt fellow doctors, and I hated that, I thoroughly enjoyed helping put an end to the carnage. Moreover, thanks to these and other torts, but also thanks to the False Memory Syndrome Foundation, the practice of recovered memory therapy ended as quickly as it began.

### **American Medicine**

I think the average American physician does things for several reasons, reasons common to most humans. They want to help people and alleviate suffering but most want to make money doing it. Professionally, they do things the way they do because they were trained to do it, because other doctors do it, because drug companies sponsored lunches telling them to do it, because speakers at conferences (also sponsored by drug companies) tell them to do it and because they want to avoid ridicule from other doctors.

Fear of ridicule from their colleagues as being a health food nut makes physicians particularly leery of discussing or prescribing vitamins. They are much too quick to prescribe an expensive new drug than to talk to their patients about vitamins.

In fact, the over-the-counter form of vitamin D (cholecalciferol, the compound your body makes naturally when you go in the sun) appears to be more potent and maybe even safer than the unnatural chemical compound (ergocalciferol) used by doctors. Unfortunately, doctors often prescribe the even newer vitamin D analogs, costing thousands of times more than cholecalciferol, when simple cholecalciferol would work much better. Such is the influence of pharmaceutical sales representatives on American medicine.

Just as important as the motivations listed above, physicians act to keep from being sued. I wish I believed organized medicine would quickly and efficiently deal with the vitamin D tragedy without the help of lawyers. My experience with "Lake Woebegone" testing and with false memory syndrome leads me to believe that will not happen. The ATLA can make a big difference in the lives of millions of Americans by learning about vitamin D, filing meritorious suits and thereby forcing doctors to change "standard care" into good care.

### **ATLA**

The fifth paragraph of the American Medical Association's Preamble to the Principle of Medical Ethics states, "A physician shall continue to study, apply, and advance scientific knowledge, maintain a commitment to medical education, and make relevant information available to patients . . ." <sup>48</sup>

So can we police ourselves? For example, how are doctors supposed to fulfill the duties outlined above? How much reading are we supposed to do? Who makes sure we do?

What happens if we don't keep up, only to open our eyes to an entirely preventable disaster?

What happens when organized medicine makes a serious mistake, when dereliction of a duty directly damages a patient? The AMA says we can, and are, policing our own profession. Trial lawyers claim Americans need tort lawyers to keep doctors in line. Doctors can't police themselves, they say

However, the American Trial Lawyers Association is on its heels. Tort reform looks inevitable. More and more Americans think the lawyers aren't serious about protecting innocent people from medical mistakes; they are just in it for the money.

### **Standard Care or Standard of Care**

Is there a tort here? A medical malpractice tort, of course, needs four "D" things: **d**ereliction of a **d**uty **d**irectly **d**amaging your client. Asked another way, would a jury be upset to learn that your client's congestive heart disease, hypertension, diabetes, osteoporosis, multiple sclerosis, cancer, etc would have been helped by a supplement that costs pennies a day? Alternatively, if the blood test came back low and your client did not like pills, a simple change in behavior will do. Of course, first your tort has to survive summary judgment.

One of the first things you'll hear is the "standard care" defense. It is certainly "standard care" in the medical community to ignore this condition. Physicians will say, "None of my colleagues do it, the Institute of Medicine (IOM) doesn't recommend it, this years medical conferences didn't cover it, practice guidelines don't mention it, etc." However, the same can be said early on for many malpractice torts, even those with dubious scientific evidence (such as silicon breast implants). Torts have seasons that run a decade or so, (such as tardive dyskinesia or false memory syndrome) from the time the problem is first identified to the time "standard care" changes to good care. Those attorneys who get in early often make the real money.

Of course, "standard care" is not the same as "standard of care." Make no mistake; a tort is easier if both are violated. However, how many times does a client limp into your office complaining that the surgeon cut off the wrong leg? In fact, I used the "standard care" defense in the sixth grade when I got caught shooting spit wads. I told the teacher: "all the other boys were doing it too." It made her furious; she had me write twice as many sentences on the board as usual. When you think about it, the "standard care" defense is often an admission of liability.

I try to explain to my colleagues that "standard of care" is not what all the doctors do or even what the IOM says we should do; it is what one jury thinks one doctor should have done. Of course, the jury hears testimony from experts on what that standard is, but in the end, the jury decides.

My exact definition is even harder for them to grasp, "standard of care is a legal term-of-art that is never defined and that constantly changes by which one jury decides what one doctor should have done at one time." My colleagues are dismayed when they discover juries don't announce what the "standard of care" is, only whether it was violated or not.

However, doctors are beginning to understand that “standards of care” change, from day to day and from state to state, depending entirely on what the trier of fact decides.

Is the scientific evidence about vitamin D beyond a reasonable doubt? No, just “within a reasonable degree of medical certainty.” Can you get world-renowned vitamin D experts to say there is a crisis and people are dying needlessly? They already have. Can you make a good “standard of care” argument from the literature and from what the experts say? I just did.

However, the sharpest of you will ask how this tort will withstand summary judgment on the need of “direct” or proximate causation. Proximate causation must meet four tests. First, identify the injury (Vitamin D Deficiency Syndrome (VDDS): the combination of osteoporosis, heart disease, cancer, diabetes, hypertension, autoimmune illness and low calcidiol levels). Second, identify the wrongful conduct (failure to discuss vitamin D with the patient or ordering a calcidiol level). Third, mentally correct the wrongful conduct, leaving everything else the same, to make the doctor's conduct fall within the standard of care (if the doctor had discussed the importance of vitamin D and had drawn the blood test). Fourth, would VDDS still have occurred had the physician acted within standard of care? Within a reasonable degree of medical certainty, I suggest you ask your expert.

Remember, if your client is old and/or black, a calcidiol deficiency will probably show up in their blood test, often a profound one. When you have a client who hobbles into the courtroom, crippled with osteoporosis, heart disease and cancer, you have a sympathetic plaintiff.

Because VDDS is rampant in the black community (due to melanin pigment in the skin that blocks sunlight), black juries might be especially outraged to hear that the doctor made no special recommendations for black patients. Black jurors will be even more outraged when they learn that pregnant black women are more likely than white women to give birth to children with vitamin D deficiency, a problem organized medicine and the IOM have known about for years.

In the end, most Americans just want their doctor to keep up on the recent medical literature (even literature with the word “vitamin” in it) and discuss important new findings with them. They should offer to draw a calcidiol level if their patient is old, or hospitalized, or just avoids the sun. If, the blood is low the doctor should recommend a course of therapy so their patient doesn't needlessly suffer from vitamin D deficiency. If the patient doesn't want to take pills, the doctor should advise how to spend a few safe minutes in the sun.

Hundreds of thousands of Americans are suffering needlessly from vitamin D deficiency. All you need is one judge to let one client show one jury how one doctor was derelict in one duty and directly damaged one client by ignoring their vitamin D deficiency. If presented with a preponderance of evidence, by one smart trial lawyer, who has done her homework, a jury will eventually side with that lawyer.

Moreover, she would be doing a tremendous service to her country.

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- 1 Fiske E. Standardized Test Scores: Voodoo Statistics? New York Times. February 17, 1988
  - 2 Putka G. Classroom Scandal: Cheaters in schools may not be students but their teachers. Wall Street Journal. November 2, 1988
  - 3 The State of American Education, March 1988, The MacNeil/Lehrer Newshour
  - 4 Cooking the Books (standardized testing in schools), April 1990, Sunday Today Show, NBC Television
  - 5 Teacher is a Cheater April 1990, 60 Minutes, CBS Television
  - 6 Hartocollis A, The Nation: Grade Inflation; New Math: No One Is Below Average. New York Times, Week in Review Desk. June 20, 1999.
  - 7 Oversight Hearing on Testing/Assessment/Evaluation to Improve Learning in Our Schools. Hearing before the subcommittee on Elementary, Secondary, and Vocational Education of the Committee on Education and labor House of Representatives. One Hundred First Congress, Second Session, Washington DC, June 7, 1990.
  - 8 Beahrs J, Cannell J, & Gutheil, T., Delayed Traumatic Recall in Adults: A Synthesis with Legal, Clinical and Forensic Recommendations. Journal of the American Academy of Psychiatry and the Law, March 1996
  - 9 Cannell, J. Hudson, J. & Pope, H., Standards for Informed Consent in Recovered Memory Therapy. Journal of the American Academy of Psychiatry and the Law, Vol 29, Number 2, 2001.
  - 10 Lynn Carl v. Gloria Keraga, et al (cause No.H-95-661) U.S. District Court for the Southern District of Texas.
  - 11 Cannell, J. Hudson, J. & Pope, H., Standards for Informed Consent in Recovered Memory Therapy. Journal of the American Academy of Psychiatry and the Law, Vol 29, Number 2, 2001
  - 12 Webster's Third New International Dictionary, Unabridged copyright © 1993 by Merriam-Webster, Incorporated
  - 13 **American Medical Association Report of the Council on Scientific Affairs.** June 16, 1994  
CSA Report 5-A-94
  - 14 Webster's Revised Unabridged Dictionary, © 1996, 1998 MICRA, Inc.
  - 15 Vitamin D; A Millennium Perspective, Holick M, J Cell Biochem, 2003, 88:296-307 (2003)
  - 16 Jane E. Brody, Personal health; A second Opinion on Sunshine: It Can Be Good Medicine After All, New York Times, June 17, 2003
  - 17 Holick M and Jenkins M, The UV Advantage, to be published by Simon and Schuster in 2004
  - 18 Dashka P, et al, Effect of four monthly oral vitamin D3 (cholecalciferol) supplementation on fractures and mortality in men and women living in the community: randomized double blind controlled trial BMJ 2003; 326: 469.
  - 19 Zittermann A, Low vitamin D status: a contributing factor in the pathogenesis of congestive heart failure? J Am Coll Cardiol. 2003 Jan 1; 41(1):105-12.

- 
- 20 Zittermann A, Vitamin D in preventive medicine: are we ignoring the evidence? *Br J Clin Nutr* 2003;89:552-572
- 21 Hollis B and Wagner, C, A Reevaluation of Dietary Requirements of Vitamin D during Pregnancy and Lactation, 2003, submitted for publication, *Amer. J. Clin. Nutr.*
- 22 Heaney R., et al, Human serum 25-hydroxycholecalciferol responses to extended oral dosing with cholecalciferol. *Am J Clin Nutr* 2003; 77:204-10
- 23 Heaney R., et al, Human serum 25-hydroxycholecalciferol responses to extended oral dosing with cholecalciferol. *Am J Clin Nutr* 2003; 77:204-10
- 24 Gomez A, et al, Revision of the Concept of "sufficiency" and "insufficiency" of Vitamin D, *Nefrologia*, 2003;23 Suppl 2:73-7
- 25 Heaney RP; Dowell MS; Hale CA; Bendich A, Calcium Absorption Varies within the Reference Range for Serum 25-Hydroxyvitamin D, *J Am Coll Nutr* 2003 Apr;22(2):142-6
- 26 Hollis B and Wagner, C, A Reevaluation of Dietary Requirements of Vitamin D during Pregnancy and Lactation, 2003, submitted for publication, *Amer. J. Clin. Nutr.*
- 27 Thomas M, Lloyd-Hones D, Thadhani R, Shaw A, Deraska D, Kitch B, Vamvakas E, Dick I, Prince R, Finkelstein J. Hypovitaminosis D in medical inpatients. *N Engl J Med* 1998;338:777-829
- 28 Chapuy MC, Preziosi P, Maamer M, Arnaud S, Galan P, Hercberg S, Meunier PJ. Prevalence of vitamin D insufficiency in an adult normal population. *Osteoporos Int.* 1997;7(5):439-43.
- 29 Vieth R, Cole DE, Hawker GA, Trang HM, Rubin LA. Wintertime vitamin D insufficiency is common in young Canadian women, and their vitamin D intake does not prevent it. *Eur J Clin Nutr.* 2001 Dec;55(12):1091-7.
- 30 Nesby-O'Dell S, Scanlon KS, Cogswell ME, Gillespie C, Hollis BW, Looker AC, Allen C, Dougherty C, Gunter EW, Bowman BA. Hypovitaminosis D prevalence and determinants among African American and white women of reproductive age: third National Health and Nutrition Examination Survey, 1988-1994. *Am J Clin Nutr.* 2002 Jul;76(1):187-92.
- 31 McKenna M. Differences in vitamin D status between countries in young adults and the elderly. *Am J Med* 1992;93:69-77
- 32 Vieth R, Vitamin D supplementation, 25-hydroxy D concentrations, and safety, *Am J Clin Nutr* 1999; 69:842-56
- 33 Vieth R; Chan PC; MacFarlane GD, Efficacy and safety of vitamin D3 intake exceeding the lowest observed adverse effect level. *Am J Clin Nutr* 2001 Feb;73(2):288-94
- 34 Munro I, Derivation of tolerable upper intake levels of nutrients, Letter, *Am J Clin Nutr* 2001; 74:865
- 35 Vieth R; Chan PC; MacFarlane GD, Efficacy and safety of vitamin D3 intake exceeding the lowest observed adverse effect level. *Am J Clin Nutr* 2001 Feb;73(2):288-94

- 
- 36 Vieth R, Vitamin D supplementation, 25-hydroxy D concentrations, and safety, *Am J Clin Nutr* 1999; 69:842-56
- 37 Hemminki K, Zhang H, Czene K. Incidence trends and familial risks in invasive and in situ cutaneous melanoma by sun-exposed body sites. *Int J Cancer*. 2003 May 10;104(6):76471
- 38 Fiske E. Standardized Test Scores: Voodoo Statistics? *New York Times*. February 17, 1988
- 39 Putka G. Classroom Scandal: Cheaters in schools may not be students but their teachers. *Wall Street Journal*. November 2, 1988
- 40 The State of American Education, March 1988, *The MacNeil/Lehrer Newshour*
- 41 *Cooking the Books* (standardized testing in schools), April 1990, *Sunday Today Show*, NBC Television
- 42 *Teacher is a Cheater* April 1990, *60 Minutes*, CBS Television
- 43 Deffley David. General Manager CTB/McGraw-Hill. Letter to Dr. John Jacob Cannell, President, Friends for Education, Inc. July 24, 1987. Copy available on request.
- 44 Beahrs J, Cannell J, & Gutheil, T., Delayed Traumatic Recall in Adults: A Synthesis with Legal, Clinical and Forensic Recommendations. *Journal of the American Academy of Psychiatry and the Law*, March 1996
- 45 Cannell, J. Hudson, J. & Pope, H., Standards for Informed Consent in Recovered Memory Therapy. *Journal of the American Academy of Psychiatry and the Law*, Vol 29, Number 2, 2001.
- 46 *Lynn Carl v. Gloria Keraga, et al* (cause No.H95-661) U.S. District Court for the Southern District of Texas.
- 47 *Sawyer v. Midelfort* (No. 96 CV 381) Circuit Court of Eau Claire County, Wisconsin.
- 48 *AMA's Revised Principles of Medical Ethics*, June 2001