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Dr. David G. Williams
circa 2001

Preparedness Is Your Responsibility

My heart and prayers go out to the many thousands who have suffered recently on the Gulf Coast. Watching the news coverage of the two hurricanes and their aftermath brought back vivid memories of my personal experiences of traveling in

numerous third-world countries. I don't think most people in our country realize just how fragile the social order actually is, and how quickly disaster, chaos, and panic can disrupt it.

We have several advantages over those in third-world countries, however, when faced with these circumstances. For one, we have an infrastructure in place that we could (and should) be utilizing to help prepare us for future catastrophes. For many individuals in many parts of the world, preparation for future events isn't an option—trying to survive each day is the primary concern. In this country, we live with the hope and the expectation that “help” will be on the way, an idea that's either a totally foreign concept or far from certain in many parts of the world.

My reason for discussing this is not to point out how naïve we are in this country (although I personally feel that's often the case), nor to illustrate how fortunate we are in contrast to other societies. Instead, it's my hope that we can learn from these events and from the individuals who have to deal with many of these same problems just to survive on a daily basis. Because surviving from day to day is exactly what is required when you are faced with circumstances like these. While I don't want to be a doomsayer in any sense of the word, I am a realist. And in this day and age, I strongly feel it's imperative that you're aware of certain steps you can take that will allow both you and your family to survive

a catastrophe—whether it's a natural disaster, a viral pandemic, a nuclear attack, or whatever.

I've covered several “survival” tactics in past issues, and I'll continue to do so as they come to my attention. For instance, in the north, peanut butter and a sleeping bag (or a three-dollar “space blanket”) can be winter lifesavers that should be stored in the trunk of your car. Hopefully, these will just be interesting tidbits that you won't have to use but that you can discuss at leisure with your friends and neighbors. However, to borrow one of my dad's sayings, “It's cheap insurance,” and it's best to be prepared.

All Life Begins with Water

One of your greatest needs in times of disaster is drinking water. If you live in a city (as opposed to having your own well and water storage system), the availability of clean drinking water is particularly problematic. As power systems fail and pumping and pressure systems no longer work, municipal water systems quickly become useless. In some cases, like parts of New Orleans, you could have the additional concern of the

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You will observe with concern how long a useful truth may be known, and exist, before it is generally received and practiced on.—Benjamin Franklin

water being highly contaminated. Bottled water was one of the primary looted items immediately after the hurricane. Not clothes, not computers, not televisions or stereos—water. I live fairly close to San Antonio, Texas, which is normally a three-hour drive from Houston. But during the evacuation for Hurricane Rita, it took anywhere from 8 to 14 hours to drive—and the stores in San Antonio were sold out of bottled water.

In the past, I've covered various ways to filter and purify contaminated water [*Editor's note: See Vol. 9 No. 21 and Vol. 10, No. 23*], but there is one simple and economic practice I have not covered. If you have any warning of an impending crisis, you should store large amounts of drinking water.

It's a good idea to keep several boxes of new, clean, white trash bags on hand. Place opened bags in your empty dresser drawers, cardboard boxes, and other empty containers (anything that will help support the empty bag once you fill it with water). Then, take each container to the bathtub and fill the bag with water from the tap while you still have electricity and water pressure—but be sure you don't fill the bag so full that you won't be able to lift the supporting container out of the tub.

Using this method, it's easy to store several hundred gallons in a relatively short period of time. If you can avoid it, you certainly don't want to be on the street fighting for bottled water, or waiting in line for days for a delivery at the local Wal-Mart.

Winding Up with an Emergency Radio

Another basic piece of equipment (along with flashlights, rechargeable batteries, et cetera) that I consider vital in any disaster or emergency situation is a radio. When the televisions and computers go off, most people lose their link to the outside world. Keeping abreast of what efforts are underway to restore power, order, et cetera is not only comforting, it's a big part of being able to adapt and survive. My favorite radios are those that have

built-in hand-crank generators so you're not relying on outside electricity or using up your batteries. Some also have built-in solar panels for recharging. With many, you not only receive the standard AM and FM radio stations, you can also receive the audio portion from local television channels 2 through 13, short-wave radio, and the NOAA national weather alerts.

I have a couple of these emergency radios, and a few flashlights with built-in hand chargers as well. My favorite radio is the Eton Grundig FR300. It is hand crank-powered, and has all the features I mentioned above except the short-wave reception. It does, however, include a built-in LED flashlight and an additional feature not found on most emergency radios, one that I particularly like, and which has been found to be very helpful in recent emergencies: a built-in cell phone charger that includes an assortment of charging adapters.

The retail price of this particular radio is around \$70, but you can often find it for closer to \$50. You should be able to find one at Circuit City or other electronics stores, or on the Internet at Amazon.com. One source, www.NextPowerUSA.com, sells it for about \$57.

(I don't want to be a radio critic, which certainly isn't my field, but I do want you to know that while I think these radios are good for emergencies, they're probably not ones you'll want to use on a day-to-day basis. The FM reception leaves a lot to be desired, and tuning in a particular station takes a little finesse—especially if you've gotten used to the digital tuning found in most car radios. For the price, however, I still think they are an excellent tool to have around in an emergency. And if you're looking for that Christmas present for someone difficult to buy for, this might be the item.)

I obviously can't cover all the information about survival here. There are volumes of information written about food storage, techniques, and tools



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for survival. If you want a quick lesson on what items are truly important in a short-term crisis, tape your refrigerator and freezer shut, turn off your water supply, and shut off all the electrical breakers except your refrigerator/freezer. Live under those circumstances for 24 to 48 hours and learn what changes and adjustments you need to make to survive. You'll probably be more prepared for a genuine emergency than 95 percent of the general population.

The Great Skin Cancer Scandal

There are a lot of tales told about skin health. One of the most damaging is that sun exposure is bad for you. (As you'll see in a moment, this is simply not true.) Another is that once damage is done, it's done, and only a surgeon's scalpel can restore you to health. That tale isn't true, either.

A Canadian dermatologist, Dr. Gordon Telford, has developed a skin cream formulation that reportedly can decrease the incidence of actinic keratoses—precursors to squamous cell and basal cell carcinomas.

The vitamin A-, C-, and E-based cream was used by 50 of his own patients who had had skin cancer. They applied it three times a week for up to five years on skin cancer-prone areas (such as the face, neck, chest, and back of the hands). In the test group, the cream reduced the incidence of new actinic keratoses by 70 percent. In 400 other patients without skin cancer, he has reported a reduction of wrinkles and lines.

It's been known for some time that both vitamin C and vitamin A can help reduce sun-induced damage to the skin when applied topically. Dr. Telford believes the antioxidants prevent sun-induced

immunosuppression. His cream is amazingly simple: a non-allergenic skin cream as a base, plus vitamins A, C, and E, and zinc sulfate.

Dr. Telford is considering patenting the formula and selling it over the counter, but for now it isn't on the market. To me, it appears to be something you could easily make on your own. Put 2 oz. of skin cream in a sterile container, and mix in the additives: 14 grams (a rounded tablespoon) of vitamin C powder; 4,000 IU of vitamin E (the contents of ten 400-IU capsules); 60,000 IU of vitamin A (the contents of six 10,000-IU capsules [be sure to use retinyl palmitate rather than beta-carotene]); and 1.5 grams of zinc sulfate (the contents of seven 220-mg capsules).

An Artful Skin Herb

Individuals who have already developed either squamous or basal cell forms of skin cancer may benefit from another approach—the use of the herb artemisinin, a compound extracted from the wormwood plant (*Artemisia annua*). Dr. Henry Lai of the University of Washington has been working with artemisinin for years, and he believes it can be a potent tool in the treatment of cancer.

Artemisinin reacts strongly with iron—which is found in cancerous cells in higher amounts than in normal cells. Dr. Lai and his colleagues are working on techniques in which artemisinin and iron are packaged together. Once the package is absorbed into the cancer cells, the iron is released and reacts with the artemisinin to release free radicals—selectively destroying the cancer while leaving healthy cells intact. (*Expert Opinion Ther Targets* 05;9(5):995–1007) (*Life Sci* 05;76(11):1267–1279) (*Cancer Letters* 95;98(1):83–87) (*Anticancer Res* 04;24(4):2277–2280)

(Continued on page 37)

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NEWS TO USE FROM AROUND THE WORLD

Add Oil for Your Inflammation

PHILADELPHIA, PA—Scientists have discovered that *extra virgin* olive oil contains a molecule that works in exactly the same fashion as ibuprofen at inhibiting two inflammation-inducing enzymes (COX-1 and COX-2). Ibuprofen, of course, is a widely used over-the-counter pain medication. Another COX inhibitor, aspirin, has also been shown to produce certain cardiovascular health benefits.

While on a recent trip to Italy, a US scientist noticed a stinging sensation after consuming extra virgin olive oil. He recognized it as the same sensation he had experienced during his studies of liquid ibuprofen. Subsequent analysis revealed that a compound called oleocanthal isolated from the olive oil was responsible. (*Nature* 05;437:45)

This compound helps further explain some of the many health benefits associated with a Mediterranean diet (which is rich in olive oil). However, I don't think you could effectively treat acute pain and inflammation strictly through the use of olive oil since the concentration of oleocanthal is quite low. Based on the research, if one and three-fourths ounces of extra virgin olive oil were consumed a day, the oleocanthal content would be equivalent to only about 10 percent of the adult recommended dosage of ibuprofen for pain relief—not nearly enough to treat, for example, a headache. On the other hand, regular consumption of extra-virgin olive oil would provide a continuous dose of this anti-inflammatory compound, which could have profound results over a period of time.

The key once again, as in exercise and supplement use, appears to be consistent, routine use. Oleocanthal is only one of the many beneficial compounds in olive oil—and I'm sure many more have yet to be discovered. For instance, we already know that extra-virgin olive oil is rich in disease-fighting antioxidants.

Protecting the Protectors

Keep in mind, however, that antioxidants break down over time if they are exposed to light and/or oxygen. In a recent study, it was revealed that olive oil in clear bottles exhibited at least a 30 percent decrease in antioxidants, tocopherols, and carotenoids after 12 months under supermarket lighting. After just two months, the peroxide created by the oxidation of the oil was raised to the point that the oil could no longer be classified as "extra virgin." (*Eur Food Res Technol* 05;221:92)

For the maximum health benefits possible, be sure to purchase the freshest extra-virgin olive oil available. Then it's imperative that you store the oil properly. It should be stored in a coated, non-reactive metal con-

tainer—preferably stainless steel, but not in copper or iron. If that's not possible, then use ceramic or porcelain or, at the very least, use tinted glass containers and store the oil in the dark—but definitely not in plastic. The container should also be kept tightly capped.

The ideal temperature for storage is 57 degrees, but room temperature will work if it's kept in the dark. Refrigeration won't harm the oil, but it's generally not recommended since condensation may affect the flavor. (If you *do* refrigerate the oil, don't be alarmed when it begins to harden. That's natural, and the oil will return to its liquid state as it warms up.) High-quality oil should keep for 15 months to two years, but has its best flavor and nutritional benefits two to three months after pressing.

Eggs for Your Eyes

BOSTON, MA—For longtime readers it might seem as if I've been mentioning the enormous benefits of eggs forever—but much of the public is still brainwashed with the idea that eggs are dangerous because of their high cholesterol content. Nothing could be further from the truth. Eggs are one of nature's most complete foods and an excellent source of protein and other nutrients.

The yolk of the egg contains lecithin—which is not only a key building block of cell membranes, but also a fat emulsifier. Due largely to an egg's lecithin content, researchers have demonstrated that the carotenoid present in eggs, called lutein, is more readily absorbed into the bloodstream than lutein from other sources. (The lecithin in eggs also balances out the high cholesterol content of the egg.)

In fact, research from Tufts University has now shown that the concentration of lutein in the blood serum of volunteers was three times greater after eating eggs than after consuming the same amount of lutein from other sources—including cooked spinach and two varieties of lutein supplements. (*J Nutr* 04;134(8):1887–1893)

Lutein is concentrated in the retina and the lens of the eye, and numerous studies have shown a link between it and the incidence and progression of various eye diseases—particularly cataracts and age-related macular degeneration (the leading cause of blindness in older Americans). I wouldn't be surprised if the widespread incidence of both of these two problems in the older population were linked to the "cholesterol scare" and the recommendations from doctors to avoid eggs for the last 20-plus years.

As we get older, many nutrients and foods can be harder to digest. Lutein may be one of these. While I still strongly suggest the regular use of good daily supple-

NEWS TO USE (CONTINUED)

ments, never forget that nature has a way of combining the various antioxidants, vitamins, minerals, carotenoids, et cetera, into foods that make them more readily available to our bodies. One of these foods is the egg. Eat as many as you want, as often as you want them.

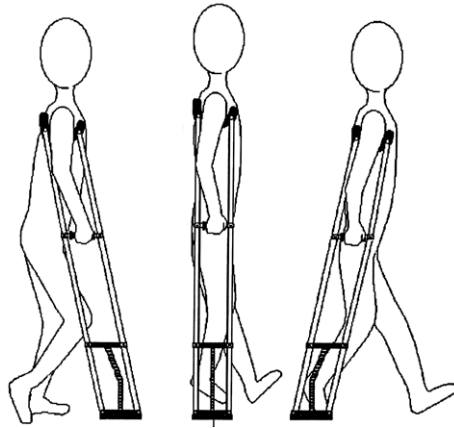
Improved Support in Time of Need

KENSINGTON, MD—I owe the next information tidbit to a good friend of mine, Tom Palm, on the island of St. Croix in the US Virgin Islands. A couple of months ago when I ran into Tom, he was about to undergo hip surgery. He showed me a new set of “high tech” crutches that he had purchased called Strutters, which I’m sure could be a godsend to a lot of people.

It seems like crutch design hasn’t changed much over the last 150 years—crutches were first patented during the Civil War—until recent innovations made by the Orthotic Mobility company. The founder of the company, Harry Herman, developed Strutters after he broke his ankle several years ago and found he was unable to use the crutches available at the time.

It’s difficult to describe exactly how Strutters work. But it’s not difficult to describe the frustration of conventional crutches—particularly to anyone who’s had to use them. I still have vivid memories of the two or three times I had to use crutches. First, trying to balance on two small tips was a nightmare, especially on uneven or slick surfaces. Then, there was the pain, chafing, and soreness under the armpits to deal with.

On top of all that, I began to experience “crutch palsy,” which anyone who’s used crutches for a period of time is quite familiar with. Placing your weight on the top of the crutch can irritate the radial and axillary nerves—which, in turn, can lead to hand and arm



numbness (perhaps permanently). In an effort to eliminate crutch palsy, forearm crutches have been developed—but they can cause shoulder problems, which are almost impossible to correct, and wrist problems such as carpal tunnel syndrome.

Strutters differ from regular crutches in both their appearance and function. They are a lightweight (3.5 pounds per pair), aluminum, spring-assisted device that users say “walks with you.” The “foot and ankle” of the Strutter works much like the human foot with the “sole” having 18 square inches of high-tech surface material for traction in all terrain (compared to 1 to 2 square inches on normal crutch tips). They truly are a technological marvel. The best way to see the difference is to look at the photos on their Web site at www.OrthoticMobility.com, or give them a call at 888-667-4046 for more information or to locate a retailer that sells their products.

Although conventional, old-fashioned crutches are definitely less expensive, running anywhere from \$50 to \$175, it’s easy to see why spending \$475 could be well worth the money for many people. (Medicare will reportedly pay for as much as \$380 of the total cost.)

The Strutter has been a true innovation to many people young and old. It has helped a wide variety of individuals regain their mobility and sense of independence—including those with cerebral palsy, multiple sclerosis, cystic fibrosis, limb loss, spina bifida, or permanent joint, muscle, and nerve damage.

The company also makes a couple models of very innovative, shock-absorbing canes based on many of the same principles as the Strutter. (I recently purchased one for my father.) You can purchase all their products directly from their Web site or from a growing list of hospitals around the country.

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There are also reports of using artemisinin with the solvent DMSO, which I’ve covered numerous times over the years [*Editor’s note: see Vol. 6, No. 18*], to help deliver the artemisinin directly into skin cancer cells. I’ve spoken with several individuals and doctors who have seen positive results using this technique. Noticeable, positive changes (or even elimination of the skin cancer) often occurs within as little as a week to 10 days. The contents of one artemisinin capsule is made into a paste by adding a drop or two of DMSO. Apply this paste to the skin cancer twice daily.

Artemisinin is available from Nutricology at www.Nutricology.com or at 800-545-9960. DMSO can be purchased at your local feed and farm animal supply store, or from DMSO Marketing, PO Box 4139, PVP, California, or 800-367-6935. I would recommend buying 99.9 percent DMSO and diluting it down to roughly 70 percent with distilled water.

I haven’t seen any work on whether the artemisinin/DMSO is effective in treating melanoma skin cancer. And, I doubt there will be any studies forthcoming anytime soon. Melanoma can spread so rapidly (and become fatal) that most doctors wouldn’t want to risk using experimental treatments.

The Truth About the Melanoma Scare

Melanoma is the form of skin cancer the media likes to refer to when they want to scare the bejesus out of the public about the dangers of sun exposure. For instance, there have been recent reports of how the number of cases of melanoma has been steadily increasing over the last 20 years. Most dermatologists will say this increase is due to the fact that more people are getting far too much sun exposure in their younger years. A closer look at the matter, however, reveals a far different story.

Skin cancer awareness programs have been effective at increasing the number of patients undergoing full-body screening exams, and the result is a huge increase in the number of skin biopsies being performed. It seems that even with biopsies there is still considerable confusion and disagreement among pathologists when it comes to identifying melanoma. It's apparently not a cut-and-dried diagnosis. Looking at the same tissue, one pathologist will see a benign lesion while another will see it as melanoma. Thus, the dramatic increase in biopsies has led to more melanoma diagnoses—many of which are false, as a new study shows.

The study, conducted by doctors at Dartmouth Medical School, found that there has been a 250 percent increase in skin biopsies since 1986—which just happens to be roughly the same percentage increase in the number of people diagnosed with early-stage melanoma. These researchers became skeptical about the rise in melanoma after they noticed that over that time there hasn't been any increase in deaths from melanoma or any increase in the number of advanced cases of the disease. (*BMJ* 05;331(7518):698)

Plain and simple, there has not been an actual increase in the overall incidence of melanoma skin cancer. The apparent increase is due merely to improved detection because of the increased number of screening procedures and subsequent biopsies—which, by the way, hasn't led to any increase in survival or cure rates. Much like cancers of the prostate, breast, and lung, the more doctors look for cancer, the more likely they will find it—and the number of false diagnoses will also increase.

If you or someone you know is diagnosed with melanoma, I would definitely suggest getting a second opinion. The M. D. Anderson Cancer Center in Houston offers a second-opinion service that is

often covered by insurance. They can be contacted on their Web site at www.MDAnderson.org or by phone at 713-792-3111.

Curcumin or Curry for Cancer

On a related side note, researchers at the same Houston cancer center reported that curcumin—one of the compounds found in turmeric and curry powders—stops laboratory strains of melanoma from proliferating and causes the cancer cells to commit suicide. The findings are so dramatic that human clinical trials are already underway testing curcumin's ability to retard the growth of both pancreatic and breast cancer, and animal studies of its effects on melanoma will begin shortly. So far, the researchers have found that curcumin has had a positive effect on every tumor marker they've tried. By the way, all of these studies involve the use of daily oral curcumin supplements that are readily available today.

For years now, I've been recommending turmeric (which routinely contains between 2 and 5 percent curcumin) as one of the least expensive anti-cancer and anti-inflammatory supplements available. [See *The Test of Time* on page 39.] I'm sure consumption of curcumin from turmeric and curry is one of the primary reasons India has only one-tenth the incidence of the US for the four leading types of cancer found here—colon, breast, prostate, and lung.

The oral therapeutic dosage for cancer is considerably higher than the maintenance amount for prevention. Curcumin is non-toxic, so some cancer studies have used amounts as high as 3.6 grams per day (3,600 mg) while others are recommending a therapeutic dose of 3.6 grams taken 3 times a day for a total dosage of 10.8 grams.

From what I've seen, four to eight grams daily of 95 percent curcumin capsules is a pretty accepted cancer dosage. It has been reported that the addition of an extract of common black pepper called piperine increases the absorption and bioavailability of curcumin. Some manufacturers have since incorporated this extract into their products. One that I find reliable is called Super Curcumin with Bioperine, from Life Extension Foundation at www.lef.org or 800-544-4440. They offer a bottle of 60 capsules with 900 mg of curcumin and 20 mg of piperine for \$22.00.

As for a maintenance dose for curcumin, that seems to vary also. What was interesting in the above M.D. Anderson study was their comment

The Test of Time: *The Power of Curcumin*

If you've ever eaten Indian food, you'll never forget the color, smell, and taste of curry. Curry is actually a combination of spices, one of which is turmeric (*Curcuma longa*). The compound curcumin is responsible for the yellowish-orange color and distinctive smell of turmeric. Curcumin is more than just a simple pigment, however. It is a very potent medicinal remedy with a wide variety of uses, some of which we've only discovered in the last few years.

The ancient practice of topically applying turmeric for strains, sprains, muscle aches, and joint pain has recently opened up a whole new area of research. A successful folk remedy in India is made with a paste of turmeric, a little powdered lime, and saltpeter. (Another recipe for topically applied paste calls for 2 tablespoons of turmeric powder and 1 tablespoon of lime juice. To this mixture a small amount of boiling water is added to help form a uniform thick paste.) The mixture is then applied to the painful area and held in place with either cheesecloth or plastic food wrap. This same compound is used in India to successfully treat skin lesions resulting from herpes, ringworm, insect bites, leprosy, and chickenpox.

We ran across an additional folk use for turmeric that may also prove useful. The powder

can be sprinkled directly on the skin to treat things like diaper rash, pimples, skin ulcers, psoriasis, and eczema. A little coconut oil can be added before applying to the skin to help hold the powder in place.

Turmeric is a strong antioxidant and free radical scavenger, but it also possesses amazing anti-inflammatory, anti-mutagenic, and other protective powers—and seems to be surprisingly potent and effective even at low dosages. Studied dosages are often somewhere in the range of 680 mg a day for a 150-pound individual. (The average daily adult intake in India is estimated at 400 mg.) Higher amounts were used in an Indian study involving 16 chronic smokers. They took 1.5 grams (1,500 mg) a day for 30 days. In every case, those on the turmeric had reduced urinary excretion of mutagens while there was no change in the control patients.

Turmeric is considered very safe. As with most herbal treatments, traditional healers recommend using it cautiously during pregnancy. It also has a tendency to increase the activity of the stomach lining, which could increase acid production—a definite benefit in some individuals and somewhat of an irritant to others.

Tip from Vol. 5, May 1994

stating the cancers were suppressed “by both short exposures to high concentrations of curcumin, as well as longer exposure to lower concentrations of curcumin.” The work of the researchers at the M.D. Anderson Cancer Center once again supports the idea that regular, routine consumption of curcumin in the diet and through supplementation may be the best form of prevention. Based on their research, a daily supplement that contains turmeric or curcumin (along with ingesting curry powders and turmeric in the diet) is a wise move.

Beyond the oral use of curcumin, a recent study shows that topical application can suppress the growth of squamous cell head and neck carcinoma. Researchers from the David Geffen School of Medicine at UCLA found that in three different cell lines, curcumin reduced the expression of growth factors. And mouse tumors stopped growing when curcumin was applied to them. (*Clin Cancer Res* 05;11:6994–7002)

Given these results, I would seriously consider changing the artemisinin paste I mentioned earlier, to use half a capsule of artemisinin and half a capsule of curcumin mixed with DMSO into a paste. (You can save the rest of the capsule contents to use in the next batch.)

Let the Sun Shine In!

As I've said several times in the past, the public has heard only part of the story when it comes to the benefits of sunshine. Obviously, excessive exposure which results in sunburn isn't a benefit at all. However, moderate amounts of sunlight, along with a varied diet containing nature's natural, protective antioxidants, vitamins, and fatty acids (omega-3s) is actually beneficial and has been shown to help prevent many forms of cancer—including skin cancer. Lifetime sun exposure was actually shown to result in a lower risk of developing melanoma. (*J Invest Dermatol* 03;120(6):1087–1093)

Past studies have shown that individuals who utilize sun exposure reasonably have a lower incidence of colon and breast cancer, prostate cancer, multiple sclerosis, osteoporosis, hip and vertebra fractures, et cetera. As I've previously discussed, many of these results are related to vitamin D—which is necessary for enabling calcium to be absorbed from the gut. Deficiencies in vitamin D (which lower calcium availability) result in rickets, osteoporosis, and weak and fragile bones.

Calcium also has numerous functions in addition to bone formation. It has major metabolic roles in nerve and muscle function, and deficiencies can result in everything from muscle spasms, cataracts, and nerve diseases to high blood pressure and heart failure.

Over 20 years ago it was discovered that vitamin D has an “anti-proliferative” effect on cells. In other words, vitamin D can stop cells from multiplying out of control (i.e., from developing into cancer).

Your body has only two sources for vitamin D. The first is from oily foods (vitamin D is fat-soluble) such as oily fish, fortified dairy products, organ meats, and eggs. The second is from your own skin cells, which use the same “cancer-causing” UV rays from the sun to convert a form of cholesterol into vitamin D.

Not surprisingly, those who consume more fish and omega-3 foods have a reduced incidence of melanoma, while those consuming more of the omega-6 oils (the vegetable oils that are now so pervasive throughout our food supply) have increased rates of melanoma and other skin cancers.

I explained the vital connection between sunlight and vitamin D in earlier issues [*Editor's note: see Vol. 7, No. 13*], so I won't go deeply into that here. I do however want to mention a couple of other chemicals that your skin makes when it has adequate exposure to the UV rays of the sun.

An Unsolved Mystery

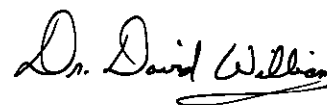
The function of two vitamin D-related compounds, lumisterol and tachysterol, isn't yet fully understood. It's possible that they're associated with helping prevent blood sugar problems and obesity. As we learn more about these two compounds, I suspect we'll find even more evidence that sunlight is a necessary component of optimum health.

We weren't made to live in caves or by the light of the moon. Sunlight provides us with far more benefits than just getting a tan. The pendulum has obviously swung too far on this topic, and it's time that the public be given both sides of the story. Only then will there be meaningful research into determining the optimal exposure needed to help prevent many of these diseases without causing any undue harm. The current message about sun exposure is that it's dangerous and should be avoided at all costs, but it's not such a black-and-white issue. Avoiding sunlight puts you at a far greater health risk than exposing yourself moderately.

Dr. William Grant, one of the top researchers on this subject, has studied the relationship between sunlight and health for years. He's found that 47,000 individuals in this country die from 16 different types of cancer due to insufficient vitamin D, whereas 8,000 die of melanoma and another 2,000 die from other skin cancers. Furthermore, pale skin, numerous moles, smoking, a diet high in fat and low in fruits and vegetables, and frequent sunburns are all stronger predictors of later skin cancer than UV exposure.

As with most things, moderation is the watchword. Enjoy your time in the sun every day (even as the days get shorter) and prepare your body with an adequate intake of the right fatty acids.

Take Care,



If you have questions or comments for Dr. Williams, please send them to the mail or e-mail addresses listed to the right. Of course, practical and ethical constraints prevent him from answering personal medical questions by mail or e-mail, but he'll answer as many as he can in the Mailbox section of *Alternatives*. For our part, we'll do our best to direct you to his issues, reports, and products related to the subject of your interest.

Here's how you can reach us:

- For Customer Service matters such as address changes, call **800-527-3044** or write to custsvc@drdavidwilliams.com.
- To order nutritional supplements from Mountain Home Nutritionals (MHN), call 800-888-1415 or visit drdavidwilliams.com.
- If you are a licensed health professional and would like to learn how to begin reselling MHN supplements to your patients, please send an e-mail to practitionerinquiries@davidwilliamsmail.com.
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