also in cancers among higher pigmented groups. The most common signs of skin cancer are a change in an existing skin growth, the appearance of a new growth, or a sore that won't heal. The growth may be a small, smooth, shiny, waxy-looking lump, but it may also appear as a flat red spot that is rough or scaly.

The effect of UV light on your skin depends on both the intensity (the duration of your exposure) and on race and genetic background. One serious sunburn can increase risk of cancer by as much as 50%. Tanning is your skin's response to UV light, a protective reaction to prevent further sun injury to your skin. However, tanning does not prevent skin cancer. Most skin cancer develops slowly, so the sunburn you receive this week may take twenty years or more to become malignant.

SHADES

By understanding how light rays impact the pineal gland through the eye, we can see the benefits of exposing the eyes to some sunlight. But experts recommend blocking most UV rays from the eye lens with treated eyeglasses and contact lenses. Sunlight spurs cataract development, in which the lens of the eye becomes cloudy. In addition to sunglasses, wearing a wide-brimmed hat can cut the dose of UV to the eyes by about a third.

But perhaps even more significant than external protection is internal protection through good nutrition. Ensuring adequate antioxidant intake has been proven to protect the eye lens from the oxidative stress of light exposure. UV damage to the eyes is also cumulative, so it's never too late to start protecting them.[11]

SOLARIZED

Suntanning increases our risk of skin cancer, but the right type and amount of sun exposure is necessary for health and happiness. Since the sun can be both friend and foe, the question of how to safely implement sunlight into our lives is significant. The answer is balance. You don't need to sunburn or even tan to get the exposure you need. Just 10-20 minutes of unprotected exposure is enough (sunscreen blocks vitamin D synthesis). Experts recommend building exposure slowly throughout the year, and avoiding burning by staying shaded when the sun is most intense.

"In the early 1990s, doctors who reviewed all the medical literature examining the health risks of exposure to the sun concluded that the benefits of moderate exposure outweigh the risk of both skin cancer and premature ageing [*sic*]. Their paper, which was called **Beneficial Effects of Sun Exposure on Cancer Mortality** was published in the US journal *Preventive Medicine* and reported that safe sunbathing would slash the number of deaths from breast and colon cancers in America by a third."[12]

Sunlight triggers free-radical activity, which causes skin wrinkles, premature aging and DNA damage. But, once again, research shows that diets rich in carotenes and other antioxidants protect the skin from the hazards of UV sunlight. Carotenes are a class of compounds found in fruits and vegetables that reduce free-radical activity. In fact, carotenes have come to be called nature's "sun umbrella." Research verifies that adequate amounts of carotenes and other antioxidants reduce the risk of cancer and prevent DNA damage that instigates a number of degenerative diseases. Though not a guarantee, carotene and antioxidant-rich diets will provide an internal defense to help protect the skin. Carotenes are used up during exposure to sunlight, so adequate amounts of fresh fruits and vegetables in the daily diet will provide continuous protection.

Nutrition and sunlight seem to be intimately related. Two groups of experimental animals were given UV light treatments. One group was given a regular balanced diet, while the others received additional protective vitamins. At the end of twenty-four weeks, 24% of the group on the regular diet developed skin cancer; no skin cancer was found on the animals that received the extra vitamins. Level of nutrition, the use of known carcinogens (such as tobacco), and the amount of sun exposure we get are all choices that will determine whether the sun will be a friend or foe.

SOLAR ECLIPSE

Sun worship offered only a false deity to fill man's natural longing for a life giver. The Bible points us to the true Giver of life: "You are worthy, O Lord, to receive glory and honor and power; for You created all things and by Your will they exist and were created."[13] God alone is worthy of worship because He is the only Creator and Redeemer. Culture and custom can be delusive; human wisdom is a myopic guide. But the Word of God is true.

The last book of the Bible identifies false worship by one name—Babylon. Here sun worship originated, illustrating the interconnecting link of all false religions as mankind's attempt to save itself by his own effort. To rescue us from the sure failure of our man-made salvation, God's word offers a last warning message to the world:

"Babylon the great is fallen, is fallen. . . . For all nations have drunk of the wine (false teachings) of the wrath of her fornication, and the kings of the earth have committed fornication with her. . . . Come out of her, My people, that ye be not partakers of her sins, and that ye receive not of her plagues."[14]

Babylon will fall. Men and women will either fall with it or choose to trust in Someone above themselves for their salvation. Jesus Christ is "the Sun of righteousness with healing in His wings."[15] He is the Light of life, our Savior and Friend.

SUNSHINE
Friend . . . or Foe

1 *The Two Babylons*, Rev. Alexander Hislop, Loizeaux Bros. Pub., Inc., USA, 1959, pp. 55-59.
2 *Columbia Encyclopedia*, 6th Ed, 2004, http://www.nordzeit.de/bsolwar.htm.
3 *Proof Positive*, Neil Nedley, MD, 1999, p. 196.
4 http://www.my.webmd.com/content/article/54/65315.htm.
5 Nutrition Action Health Letter, Dec. 2003, Vol. 30, No. 10.
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7 www.lef.org/newsletter/2005/2005_02_21.htm.
8 http://qjmed.oupjournals.org/cgi/content/abstract/89/8/579.
9 *Sunlight*, p. 57.
10 *Reader's Digest*, July 2003, p. 134.
11 www.cnn.com/HEALTH/9808/26/sunlight.cataracts.
12 www.whatreallyworks.co.uk/start/articles.asp?article_ID=451.
13 Revelation 4:11, NKJV.
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SUNSHINE Friend . . . or Foe

Accuse not Nature, she hath done her part;
Do thou but thine.
~John Milton, Paradise Lost

SACRED OBJECT

Legend recounts the story of a man who died a violent death in his prime—he, the great leader, the mighty hunter. His widow, Semiramis, now sought to mask her illicit pregnancy, and maintain her position and power. Beautiful and adored by the people, she deified her husband as a blazing star in the heavens and initiated a system of worship that would continue throughout human history.[1]

This system of worship evolved and mutated in its passage through time and civilizations. Sun worship was represented by many names in cultures around the world: *Shamash* in Mesopotamia, *Baal* to the Canaanite and Phoenician, *Mithra* or *Ahura Mazda* to Persians, *Helios* to the Greek, *Dasjbog* to Slavs, *Elagabulus* to Romans, *Amaterasu* to the Japanese and *Tonatiuh* to the Aztecs in Mexico. Sun-gazing in Egypt was a form of worship to *Ra*.

Symbols, engravings and ruins have been found throughout the world. It is said that the obelisk in Rome was raised to *Sol Invictus*, the unconquered sun. Sun discs, wheel crosses, and other symbols have been discovered on excavated artifacts and ships belonging to the ancient Nordic culture. In the Inca Empire the sun was adored in the form of a golden disc surrounded by beams.

The influence of the sun in religious belief also appears in Zoroastrianism, Mithraism, Hinduism, Buddhism, Roman religion, the Mayan culture of Central America and among the Druids of England. And millions of Hindus in India repeat a prayer, known as the *Gayatri*, to the sun. There is hardly a nation you can name in which the worship of the sun has not found a place and where its influence is not still seen.[2]

SUPER NUTRIENT

The sun is worthy of awe. From 93 million miles away (150 million km), its rays travel at speeds of 186,000 miles a second. Referred to by some scientists as a "super nutrient," it ranks with food, water and air as part of Earth's life-support system. Our precise distance from the sun is no accident. Any deviation, whether closer or farther away, would prevent our receiving the proper amount of radiation necessary for our very existence.

Most of the energy from the sun is concentrated in wavelengths of full-spectrum light. While some wavelengths are filtered out by the earth's atmosphere, only one-third of those that hit our planet are visible to the eye. These cosmic rays, visible and invisible, have much to do with life and health.

Light waves entering our eyes powerfully impact brain chemistry. As the retina is exposed to light, messages are transmitted to parts of the brain designed to synchronize biological rhythms. These messages are received and interpreted by master glands that control the entire endocrine system. The hormones that these glands produce increase learning capacity, slow down aging, influence sleep, perform as powerful brain antioxidants, and infuse us with a sense of well-being.

Melatonin is a hormone that communicates information to various parts of the body about environmental lighting. This hormone, which is manufactured at night in the pineal gland, has been called "the chemical expression of darkness." We cannot produce it in the presence of light. Sunlight exposure during a day, however, increases our output of melatonin that night. "Melatonin protects against free-radical damage from certain carcinogens, herbicides and radiation."[3] It is thought to be the most protective antioxidant, cancer prohibitor and hormone regulator we have. Melatonin also reduces high levels of stress hormones and restores disease-fighting T cells.

Serotonin has been labeled our happy hormone. Depression expert Simon Young, of the Department of Psychiatry at McGill University in Montreal, says that low brain serotonin corresponds to psychiatric symptoms. For example, depressed persons who commit or attempt suicide, as well as criminals who commit impetuous, violent acts, commonly have low levels of brain serotonin. Seasonal Affective Disorder (SAD) sufferers also have lower levels of serotonin during winter months. "Researchers found that regardless of the season, the turnover of serotonin in the brain was affected by the amount of sunlight on any given day. And the levels of serotonin were higher on bright days than on overcast or cloudy ones. In fact, the rate of serotonin production in the brain was directly related to the duration of bright sunlight."[4] Sunshine on your shoulder really does make you happy.

Sunlight regulates the levels of many hormones. Hypothyroidism (low thyroid-hormone output) is a condition characterized by chronic fatigue, inability to concentrate, weight gain, need for excessive sleep, and a general rundown, unwell feeling. Sunlight exposure has been observed to stimulate thyroid production in individuals with low thyroid-hormone output. Sun exposure can also help combat stress. Healthy subjects maintained low levels of certain stress hormones when exposed to sunlight, but when under artificial light, these same hormones rose to unhealthy levels.

SOLAR EXPOSURE

Millions of adults risk a vitamin D deficiency, according to Dr. Michael Holick, Director of the Vitamin D, Skin and Bone Research Laboratory. When high-energy ultraviolet (UV) light penetrates the skin, the light rays convert substances in the skin into vitamin D. This, in turn, goes through a multi-staged process through the liver and then the kidneys to emerge in an active usable form.[5] Thankfully, vitamin D is stored in body fat and in the liver. Getting enough exposure in the summer and fall can potentially provide adequate amounts through the winter.

Vitamin D is actually a hormone that performs many functions. It increases the intestines' efficiency in absorbing calcium, magnesium and phosphorus. If deficient, only 10-15% of dietary calcium is absorbed. Calcium is essential for almost all electrical activity in the body (and nowhere is it more important than in the brain), but it is best known for its significance to bone health. It boosts the activity of bone cells that make and lay down bone matrix, mineralizing the skeleton, thus preventing bone disease.

Osteoporosis and osteomalacia can result from vitamin D deficiency. Osteomalacia causes muscle weakness, aching bones and pain. Sometimes this is diagnosed as arthritis, collagen-vascular disease or fibromylagia. Studies have shown that 40% of elderly patients who suffered broken hips were lacking in vitamin D.

Vitamin D deficiency has the potential to raise the risk of Type 1 diabetes, multiple sclerosis, congestive heart failure, and some cancers. A study in Finland, where vitamin D deficiency is common, followed 10,000 children for 30 years. Those who took at least 2,000 IUs of vitamin D daily during the first year of life had an 80% lower risk of diabetes than those who took no vitamin D supplements. Low levels of vitamin D in adults have been linked to impaired glucose tolerance. And, interestingly, "vitamin D is one of the most potent hormones to inhibit cell proliferation."[6] In test tubes, activated vitamin D was seen to inhibit breast, colon, lung and prostate cancer cells. In 1982, the Physician's Health Study obtained blood samples from 2400 healthy participants. Dr. Haojie Li, PhD of Harvard University School of Public Health (and the study's lead investigator) found from these samples that men with high plasma vitamin D levels experienced up to a 45% lower risk of developing prostate cancer than those with lower levels. He concluded, "Our findings suggest that vitamin D plays an important protective role against prostate cancer, especially clinically aggressive disease. This research underscores the importance of obtaining adequate vitamin D through skin exposure to sunlight or through diet, including food and supplements."[7]

When it comes to heart health, high cholesterol levels are considered to be a threat, involving blood vessel damage, hardening of the arteries and decreased levels of oxygen in the blood and body tissues. But studies have found that a bit of sunbathing actually reduces blood cholesterol levels.[8] Exposure to UV light increases the amount of oxygen in the blood by boosting the blood's oxygen-carrying ability. This provides more oxygen in the tissues, resulting in more available energy and healthier cells.[9]

Speaking of healthy cells, studies show that exposing the body to sunlight or even artificial UV light increases the number of white blood cells or lymphocytes. These are the body's primary defense against the onslaught of infection and illness. However, too much sunlight—especially enough to burn the skin—lowers resistance, weakens the immune system and accelerates free-radical damage.

Sunlight also has a sterilizing effect on microbes—bacteria, viruses, fungi and molds. Experiments using UV lights in hospitals demonstrated sunlight's effectiveness in lowering bacterial contamination in the air by 40-70%. Shining through the windows, it can destroy unwanted microbes in your home.

SABOTAGE

"On the sun-drenched Caribbean island of St. Thomas, there is a plant known to the locals as the 'tourist tree,' so called because its red bark peels off in long pale strips."[10] Of course, it is named for the typical experience of many visitors from the Northern Hemisphere to the Southern Hemisphere. As enjoyable and beneficial as sunshine is, it can also be destructive. Society's passion for sunbathing and unprotected sun exposure has given drastic rise to the occurrence of skin cancer. Sun-induced skin cancers occur more frequently in fair-skinned people with a history of excessive sun exposure, but statistics from the National Cancer Institute cite a proportional rise