

"Then God said, 'Let there be light'; and there was light. And God saw the light, that it was good" (Genesis 1:3, 4 NKJV).

The sun is a colossally big, fantastically hot cosmic radiation powerhouse with a surface temperature of about 11,000 degrees Fahrenheit. Its interior temperature is a little warmer — *estimated as high as 18 million degrees!* 

The pressure at the center of the sun is about 700 million tons per square inch. It's enough to smash atoms and create nuclear fusion at the sun's core, allowing it to give off constant light and warmth. In fact, the material at its core is so hot that if you could capture enough to cover a pinhead, it would radiate so much heat it would kill a person one mile away.

Fortunately, earth is safely positioned about 93 million miles away, meaning it takes the light of the sun about 8 minutes and 20 seconds to reach our world. Just in time to do a lot of good.

# What's so good about light?

Light is essential to all life — so essential that God provided the sun as a constant source to supply the energy necessary to sustain all life on earth. The energy used by plants growing in your garden, a cheetah running at top speed, and even the gasoline that powers your car can all be traced back to the energy

supplied by sunlight. In fact, solar power is the originator of nearly all naturally occurring energy on the earth.

Yet even though God said that light was good in the beginning, many people are actually afraid of sun exposure today. Perhaps we have been so misinformed, we are overreacting to the dangers of sunlight while missing the many positive health benefits. "Truly the light is sweet, and a pleasant thing it is for the eyes to behold the sun" (Ecclesiastes 11:7).

# **Amazing Physiology**

## Can sunlight actually improve health?

Like plants, human beings also need sunlight for optimal health. Although many believe that any exposure to sunlight is harmful, it is actually an overexposure to direct sunlight that should be avoided.

In fact, in moderation, sunlight can ...



- ease tension,
- increase immunity,
- prevent diseases,
- improve sleep,
- increase mental performance,
- heighten metabolism,
- relieve arthritic pains,
- and boost energy levels.

Many of sunlight's benefits are connected to vitamin D. Our bodies must have the UVB radiation found in sunlight to make this essential, health-promoting vitamin.

When exposed to sunlight, our skin begins to protect itself from overexposure by producing melanin, a chemical that darkens skin, and vitamin D precursors. Increased melanin and vitamin D allow increased exposure to the sun without burning.

#### How much sun exposure do I need?

Approximately 30 minutes a day, 3 times a week, in direct sunlight is adequate for most Caucasians. The darker your skin, the more sun exposure you need to obtain an adequate amount of vitamin D. However, if you have very fair skin, burn easily, or live in areas where the sun is particularly intense, you will want to make sun exposure a gradual process. If reddening of the skin occurs, you may have spent too much time in the sun!

Start with as little as five minutes per day (for the fair-skinned) and gradually increase exposure to 30 minutes or more per day. If you stay out in the sun for longer periods of time, be sure to wear a wide-brimmed hat and clothes that will protect the areas of your body that are most likely to get burned (face, ears, neck, shoulders, and back). Be aware, however, that barriers that reduce ultraviolet (UV) radiation (sunscreen, windows, etc.) also will reduce vitamin D production in your body!

## Too much of a good thing ...

Remember, sunlight is best in moderation. Protein and genetic tissue are damaged each time your skin burns, putting you at greater risk for skin cancer.

However, don't let this scare you away from obtaining proper sun exposure! The body will make adequate vitamin D with only one quarter of the sunlight required to cause a sunburn.

And although skin cancer claims the lives of approximately 2,000 Americans per year, researchers believe that regular, moderate exposure to the sun can actually prevent 138,000 deaths from other types of cancer each year.

# The Evidence

Research proves the connection between sunlight exposure, health, and longevity.

Cardiovascular Disease: Can sunlight help your heart?

According to nutrition experts, vitamin D helps the

intestines more efficiently absorb calcium and phosphorus — elements that can lower high

blood pressure. (High blood pressure has been linked with serious complications such as heart disease, heart attacks, and strokes.)

In fact, researchers from Harvard University published a study looking at the correlation between vitamin D levels and heart disease. The results were startling: Those with



Amazing Health Facts

More than 90 percent of Americans are vitamin D deficient.

The National Institutes of Health reports that 10 to 15 minutes of sunlight allow adequate time for vitamin D synthesis to occur.

