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Effect of light on the physiological activities of the human body

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Abstract

Light is one of the environmental conditions and factors that have a direct and indirect effect on living organisms such as: animals and plants. Light not only effected directly on Physiological, food making, and living creatures grow activities, but it has its own effect on human being lives as well. Aim of this article is to examine the effects of sunlight (increase and decrease) on the human psyche.

As a result of this research, it became clear that whenever the amount of light decreases from a certain limit, in autumn and winter, it causes seasonal depression in many people. It means that, the reduction of sunlight causes mental illnesses such as: stress and anxiety, and in addition to excessive use of sunlight causes skin diseases, especially skin cancer.

Keywords: light, physiological, human body

Introductions

Light is one of the natural conditions and factors that originates from non-living sources of nature but affects living organisms. Humans were familiar with the properties, usefulness and harmfulness of light from earlier times. An example of many ancient cultures, including the ancient Greeks, was the use of light in the treatment of many diseases. The Indians in the years of 150 before Christ (BC) also used plants and sunlight for treating of many diseases. The first German immigrants worshiped the sun as the god of their healths. Most of ancient people used "phototherapy" to treat mood disorders, seasonal illnesses and skin diseases. Other applications included the use of low-power lasers, red light, under red UV lamps to control pain, hair growth, and treatment of skin diseases and accelerate wound healing (Gino *et al.*, 2009) [4].

In this article discussion is about the role of light in the human psyche, especially about the effects of sunlight and its impact on the human psyche, seasonal depression and mood swings, that how and why lack of light causes depression, mood swings, and depression on other mental illnesses. First, the discussion is about the generalities of light and then about the effect of high light on the human psyche, what is the psyche and how it affects the environment, what kind of mental illness is there. At the end the focus is on the role of sunlight in the causing of these diseases.

In this research, a qualitative method has been used, because by the qualitative method the desired results are better obtained in relation to the effect of light on the human psyche. In this article research information are gathered from the scientist who have done worked in this regard and I have used from their published sources. The objective of this study is to investigate the effects of light on the human psyche.

Types of light: Light in terms of wavelength is divided into three parts or three categories: 1 - Ultraviolet: this kind of light is in terms of short wavelength, invisible and harmful. 2 - Inferred rays -: this type of light has a long wavelength, low energy and invisibility and causes heat production. In this regard, it is also called heat radius. 3- Visible rays: It has a wavelength of 760 39 390 nm which is also called Radiation energy that all living beings take benefit from it (Enger: 2010) [2].

Usefulness and harmfulness of light

Sunlight is very important and is very useful in human being health. However, too much of this can have serious side effects, and can lead to skin cancer. In recent years, the ozone layer has been useless, so it is very dangerous for the inhabitants of the earth, because this layer acts like a filter and prevents any radiation of the sun on the earth. Sunlight is one of the best

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friends of human bones, which can be created from a distance of 93 million miles to Earth (Jane, 1388) [5].

This light illuminates our day and warms our body. Radiation to the body allows the skin to make effective vitamin D. This vitamin circulates calcium in the blood and delivers the necessary minerals to the bones and muscles. Without the help of vitamin D, calcium will not enter the bloodstream. If calcium does not reach the body for a while, the body uses the calcium in the bones. Deficiency in the bones causes osteoporosis and in addition the bones become weak and brittle. Calcium is not only good for bones, but also regulates heart rate, strengthens nerves and muscles, and prevents blood clotting. The first signs of osteoporosis are bone pain, back pain, restlessness, and weakness of the body. It can be difficult for him to walk and even walk. These side effects are more common in adults. Aging is associated with a decrease in vitamin D.

After the age of 40 or 50, the skin's ability for absorbing and activating vitamin D decreases. This is why adults, especially in winter, go out less to use the sun; more than young people are deficient in calcium. These people should use more sunlight or for this deficiency eats foods that contain vitamin D such as: dairy products, eggs, fish more (tiptop20.blogfa.com/cat-54.aspx).

Effects of sunlight on humans

Having of sun light is more important for human being, because without sunlight, life is not possible for humans. Cellular metabolism is activated and stimulated by sunlight, and on sunny days, a person feels happy, excited, and soon gets tired, because the blood circulation under the skin is stimulated by the sun. Many people feel youthful and active in the sun. When the sun shines, the secretion of the hormone melatonin from the epiphysis gland in the brain is limited and stopped, and as a result, disturbed and depressed spirits, axed and dark thoughts gradually disappear and happiness is replaced. Therefore, sunlight has numerous benefits, which are briefly mentioned below, and sunlight heals arm wounds quickly and is very useful for skin diseases and also activates sex hormones. On sunny days, the more active man is less sensitive to joint pain, the less he feels tired compared to cloudy days. In the face of sunlight, vitamins and minerals are better absorbed by the human body and the sun shines. Most of the vitamins on the skin are active and consequently captivated by the body. The skin that is constantly unprotected to the sun, ages quickly and relatively deep wrinkles are created in it and the skin loses its moisture.

With more exposure to sunlight, the body's immune system becomes inactive and the body becomes cold. The skin of the lips is cracked and the hair turns white sooner. Excessive use of the sun causes anesthesia, headache, dizziness and poor eyesight. According to WHO statistics, 50,000 people are diagnosed with skin cancer annually in addition to 150,000 people worldwide. The effect of sunlight on the human psyche: The psyche is a fusion of human personality that is mostly used in psychology and is recognized by the interaction of behaviors and emotions, while the soul is an abstract and independent being and is not limited to the single human dimension but also to describe other abstract beings Seasonal depression and its relationship: Some people experience mood swings and loss of energy during the months of Scorpio and Sagittarius, but return to normal during the rainy months, but others are the opposite. That is,

they become depressed at the beginning of spring (<http://mohsenazizi.blogfa.com>).

This type of disorder is usually called seasonal depression or seasonal affective disorder (SAD), a condition that occurs at a specific time each year. The other rare type is called summer depression and often it start at the end of spring season and it last until the end of summer or to the first days of the autumn.

Waking up in the dark to go to work and back home in the dark can deprive a person of vitality and freshness, but for some people this change of mood is severe. People who suffer from this disorder have many common symptoms of depression such as: sadness, anxiety, restlessness, isolationism, lack of interest in daily activities and inability to focus radar. These people often experience symptoms like: extreme tiredness and lack of energy, a strong need for sleep, sugar and starchy foods, increased appetite and overeating, and finally overweight.

Psychologists say that, the prevalence of seasonal depression is higher in people over the age of 45. The body's biochemical reaction to climate change at these ages promotes mood swings. However, this type of depression is more common in women than men. Of course, some people are genetically predisposed to the disorder, which is far more common in women than men (Albert, 1390) [1].

Furthermore, according Albert (1390) [1] ideas sunlight has different effects on animal activity in different seasons (hibernation and fertile seasons (seasonal depression) (SAD). It may also be due to changes in day length and light intensity in different seasons. Epiphysis is in the brain, which is also called sleep-related hormone and has the highest secretion in the dark and during sleep at night, so in autumn and winter, which is a short day and long night, the secretion of this hormone increases in the body and causes depressive symptoms in new research. Seasonal depression is caused by a decrease in sunlight in the fall and winter seasons. Phthotropy is an effective way of treating the seasonal depression. Researchers have found that it can relieve excessive secretion of melatonin in the body. Most people responded positively to this type of treatment. This treatment consists of fluorescent white light, which is reflected on a metal plate, and the person is exposed to this light with his eyes open without looking directly at the light. This treatment method lasts for half to two hours. They use it daily. Of course, in mild cases of this disease, leaving the house for many hours of the day and walking in the sun alone can help a person to cure the disease. Psychologists have found in one study that an hour of walking in the sun as much as two hours of exposure to fluorescent white light can be effective in curing the disease. If phototropic is not effective for relieving a small percentage, so, antidepressants can be used with Phototropic to help treat the disease.

Conclusion

In conclusion, it can be say that light is one of the natural factors that can be natural or artificial. Sunlight can be beneficial or harmful to humans. For example, it is beneficial for supplementing vitamins, for the normal functioning of the nerves, bones, normal activities of the body and the human body and mind, but if used too much, it can cause skin cancer. Sunlight reduces mental illness such as stress and anxiety. The cause of seasonal depression in many people is a decrease in sunlight, ie shortening of the

day in autumn and winter. In the short days, the secretion of the hormone melatonin increases and this action causes seasonal depression in humans. This disease is treated by Phototropy.

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