The effect of sunlight to human being

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Amid the broad day light of Mid –April, the temperature may rise up to 40-42*C in someday. Those people who work in the outside or beach lovers during the summer holiday with inappropriate dressing may overexpose to the sun which lead to both short and long term untoward effects to the health.

Sunlight is made up of many waves or rays. It produced visible light, infrared radiation for heat and ultraviolet radiation which are unable to be detected without special instrument. Ultraviolet is subdivided by the range of the wavelength into 3 types (A, B, and C). The earth's atmosphere filters out much of the more dangerous solar radiation, only UV wavelengths that reach the earth's surface are UVA and UVB.UVC is extremely hazardous to skin, but is completely absorbed by the stratospheric ozone layer and does not reach the surface of the earth. UVA is the most abundant source of solar radiation at the earth's surface and penetrates beyond the top layer of human skin and can cause damage to skin and connective tissue. UVB rays are less abundant at the earth's surface than UVA because a significant portion of the rays is also absorbed by the ozone layer. UVB rays penetrate less deeply into the skin but can also be damaging. They can get but not very far deep into our bodies, just mainly affects our skin and eyes.

Despite of that, sun exposure can yield many positive benefits especially the vitamin D synthesis by converting cholesterol in the skin to vitamin D. Vitamin D is very essential in calcium absorption from the gastrointestinal tract which is the most important part for development of healthy bones thus, preventing of rickets in childhood and osteomalacia in adults. Sunlight can also help to regulate almost all our bodily processes, such as, hormones regulation, stabilization of blood sugar, stimulates the production and increases the oxygen content of the red blood cells. It also stimulates production of more white blood cells which helps the body maintain its defense against diseases.

Overexposure to the sunlight may cause many short and long term effects, such

as skin burn, premature aging and undesirable changes in the skin texture (scaliness, dryness, reddening, roughness, leatheriness and wrinkles), skin cancer, lip cancer, and eye diseases (pterygium and cataract).

Sun burn usually shows up the day after exposure, it causes redness, tenderness, swelling, blistering, fever. Tanning of the skin causes by the penetration of the UV rays to the skin inner layer resulting of more melanin. That melanin eventually moves toward the outer layers of the skin and becomes visible as a tan. Long term exposure will eventually causes premature aging and skin cancers. Basal cell and squamous cell carcinomas are predominant and usually occurring in the head and neck regions.

Not everyone has the skin and eye change in the same manner. The risk factors include the skin type, the time of year and the amount of sun exposure. In pale-skinned people such as Caucasians, the maximum amount of melanin is not enough to protect against the doses of ultraviolet radiation that occur in the tropics where the sun is bright and abundant. As a consequence, Australians have the highest rate of skin cancer in the world. About 1200 people die each year in Australia as a result of skin cancer.

The UV Index which was developed by the National Weather Service and the Environmental Protection Agency can predict the exposure levels on a 0-10+ scale, where 0 indicates a low risk of overexposure and 10+ means a very high risk of overexposure. With those light skin people, 5-6 UV Index represents a moderate possibility of UV overexposure.

How to protect ones selves from the sun's UV ray? When possible, avoid outdoor activity during midday when the sun's ray are strongest, that is between 10 a.m. and 4 p.m. you can also wear protective clothing, such as wide brimmed hat, long sleeved shirt, and long pants. Applying sunscreen and lip-screen with at least SPF 15 (Sun Protection Factor) and reapply as indicated by the manufacturer's directions. For eye protection, wear wraparound sunglasses that provide 100% UV ray protection. You can also reduce your risk of sun damage by seeking shade under an umbrella, tree, or shelter whenever possible.

Keep in mind that sunscreen is not meant to allow you to spend more time in the

sun than you would otherwise. UV rays can also reflect off virtually any surface including sand, concrete, and can reach you even in the shade.