# Essay for July – Sun Safety Month

In Florida we are closer to the equator than most of the United States of America. We should be more cautious in our sun exposure. Sun overexposure causes a wide constellation or problems. The most publicized ones are the direct skin damage, from dry skin to sunburn to lesions that may lead to skin cancer. What we overlook often is that exposure to warm/hot sunny days can result in dehydration, heat stroke, heat exhaustion and sun poisoning. Sun exposure can also cause some eye problems, especially in our climate. Please take care with yourself and others. Pets, children, and the elderly can be especially susceptible to the problems caused by the sun. Leaving anyone or any pet in a hot car can quickly lead to problems for the victim.

Direct skin damage is caused by exposure to ultraviolet light. The damage starts with suntans, progressing to sunburn and as the years of sun exposure add up, seborrheic and actinic keratoses form. The actinic keratoses can progress to skin cancers. The three predominant types are basal cell carcinoma (BCC), squamous cell carcinoma (SCC), and malignant melanoma. Some of us have a genetic predisposition to these skin cancers. The way to prevent the bad ones, like SCC and malignant melanoma is to use sun protection techniques as listed by WebMD in a recent article:

9 Ways to Protect Your Skin

1. Wear sunscreen every day, in all weather and in every season. It should have a sun protection factor (SPF) of 30 and say "broad-spectrum" on the label, which means it protects against the sun's UVA and UVB rays. Put it on at least 15 minutes before going outside. Use 1 ounce, which would fill a shot glass.
2. Reapply sunscreen at least every 80 minutes, or more often if you're sweating or swimming.
3. Wear sunglasses with total UV protection.
4. Wear wide-brimmed hats, and long-sleeved shirts and pants.
5. Avoid being out in the sun as much as possible from 10 a.m. to 2 p.m.
6. Check your skin regularly so you know what's normal for you and to notice any changes or new growths.
7. Choose cosmetics and contact lenses that offer UV protection. You still need to use sunscreen and wear sunglasses with broad-spectrum sun protection.
8. If you're a parent, protect your child's skin and practice those habits together.
9. Don't use tanning beds.

WebMD Medical Reference, Reviewed by Stephanie S. Gardner, MD on March 07, 2021

A very important item in detecting and treating skin cancers is to visit your health care provider, it doesn’t have to be a dermatologist and have a skin cancer check, head to toe, at least yearly or if you know you are at high risk, every six months. High risk individuals are people who have had large amounts of sun exposure throughout their lives (sun exposure is additive), people

who worked in the sun, have a large percentage of their activities outdoors, are light skinned, have a genetic predisposition, or have not taken the precautions needed in the past.
If you or someone close to you notices something on your skin that just “doesn’t look right”, get it checked by your health care provider.

Eye protection is also important. Conditions caused by sun exposure to eyes are eye area aging, corneal sunburn, cataracts, pinquecula and pterygia, and macular degeneration. Sunglasses with UV protection and wide brimmed hats that shade your eyes are important when you are in the sun. The area around the eyes can have lines, skin thickening, and pain from sunburn, all contributing to eye area aging. Cataracts are accelerated by sun exposure and are detected by eye exams and corrected by surgery. Pinquecula and pterygia are yellowish thickened areas on the white part of your eye, caused by irritant exposure, including sun. If the thickened area crosses onto your cornea (the clear part), it changes from a pinquecula to a pterygium and may need to be removed. Macular degeneration can be a part of aging, but is accelerated by sun exposure and precautions as noted above are helpful in preventing this.

Heat related illness are more common in hot, humid, sunny environments. The Occupational Safety and Health Administration (OSHA) have a page dedicated to recognizing and preventing heat illness. Heat - Overview: Working in Outdoor and Indoor Heat Environments | Occupational Safety and Health Administration (osha.gov)

What is a heat related illness?

> In a warm environment, especially when physically active, the human body relies on its ability to get rid of excess heat (i.e., heat dissipation) to maintain a healthy internal body temperature. Heat dissipation happens naturally through sweating and increased blood flow to the skin. Workers cool down more rapidly if the external (environmental) heat and physical activity (metabolic heat) are reduced.
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> If heat dissipation does not happen quickly enough, the internal body temperature keeps rising and the worker may experience symptoms that include thirst, irritability, a rash, cramping, heat exhaustion, or heat stroke.
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> Heat stroke is the most severe heat-related illness. Workers suffering from heat stroke experience mental dysfunction such as unconsciousness, confusion, disorientation, or slurred speech. Cool these workers immediately and call 911!
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> You can learn more about these and other heat-related illnesses in Heat-Related Illnesses and First Aid.
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> During heat waves, workers may experience a combination of two kinds of heat-related illness. "Exertional heat illness" results primarily from exertion (metabolic heat generated by muscle activity in the body). On the other hand, "environmental heat illness," is attributed primarily to ambient conditions, including heat and relative humidity, and is related to heat waves and death in the elderly, urban heat islands, and hot motor vehicles (Bouchama 2002).

Heat-related illness is preventable, especially with our ability to control our environment. An effective heat-related illness prevention program is incorporated in a broader safety and health program and aligns with OSHA's Recommended Practices for Safety and Health Programs core elements.

Workers who have not spent time recently in warm or hot environments and/or being physically active will need time to build tolerance (acclimatize or, less frequently used, acclimate) to the heat. During their first few days in warm or hot environments, employers should encourage workers to:

- Consume adequate fluids (water and sport drinks)
- Work shorter shifts/times
- Take frequent breaks
- Quickly identify any heat illness symptoms.

Engineering controls such as air conditioning, with cooled air, and increased air flow, leading to increased evaporative cooling, is safer. Other options for keeping body temperatures down in warm environments include making changes to your activity. Slow down, take frequent breaks and hydrate when thirsty are ways to prevent heat stroke and heat exhaustion (heat exhaustion is more insidious with a longer onset). Be aware when something is wrong or if someone around you seems to be in distress.

The sun is a gift from God and starts our days with His Blessing. Enjoy the light and warmth, but use precautions when being out in it for any period of time.

Thank you all for being Blessed Saint Timothy’s parishioners and followers.

Dave Kotun.