TANNING HEALTH RISK WARNING NOTICE

Ultraviolet Light (UV) or Radiation (UVR)

UVC (180 – 290 nm) has the shortest waves, highest energy, and is normally blocked by the ozone layer. It is used to kill bacteria and is often called 'germicidal'.

UVB (290 – 320 nm), commonly known as the erythemal UV, is the most responsible region for sunburn, tanning and skin cancer. It is responsible for stimulating increased melanin production. It is also the band that converts ergosterol in the skin to vitamin D.

UVA (320 – 400 nm) is the largest contributor of UV in sunlight and tanning bed spectra. It is responsible for 'immediate' tanning, by activating melanin pigment granules already present in the upper skin cells. It penetrates deeper into skin than UVB. It is also called 'Black light'.

Tanning Lamps

Low pressure fluorescent lamps range from 80 to 160 watts. They are either 5 or 6 feet in length. Their output generally exceeds the sun's natural intensity by 2 to 5 times.

High pressure (HP) lamps, or High Intensity Discharge (HID) lamps, ranges from 400 to 30,000 watts. Their size is small, averaging from 5 to 8 inches in length. Their output generally exceeds the sun's natural intensity by 20 to 100 times.

HP lamps require a filter glass, commonly known as "blue glass" to contain the output of the UVC spectrum. This filter glass must be present in order to operate, or severe burning will occur.

Protective Eye Wear

The eyelid is too thin to be able to protect the eye from UVR penetration and simply closing eyes is not sufficient to prevent possible eye damage. The goggle should fit snugly around the eyeball. If a patron can see out of the sides of the goggle or notices light coming in, they need another pair. Each tanning device user must follow manufactures eye wear recommendations.

There are many eye diseases and syndromes caused by exposure to UVR including:

- Retinal Burns - Produce scarring in the rods and cones of the eye, which will reduce both visual acuity and sensitivity to color. It is caused by UVA rays. Color vision loss is permanent.
- Photokeratitis or corneal (lens) sunburn - The symptoms include pain in the eyes, the feeling of sand in the eye, blurry white vision. The reaction can take up to 48 hours to happen. It is caused by UVB rays. It is not usually permanent.
- Brunescent Cataracts - Clouding or pigmentation of the lens within the eye. They are slow to develop, usually occurring over a matter of years, but they are permanent. The clouding affects night vision and also can alter perception of color. It is caused by unprotected overexposure of the eyes to UVR. Cataract surgery is the only known cure.
- Ptyerguims - Growth of tissue on the whites of the eyes that can block vision. It can be removed, but often grows back.
- Macular Degeneration - Reduces vision and often requires surgery.
- Cancers around the eye.

UV Exposure and Frequent Tanning

An exposure schedule is designed to allow a patron to gradually build a tan (usually six to 10 sessions following the manufacturer's exposure schedule), while minimizing the risk of erythema. The schedule is based on: the skin type of the individual patron; the output of lamps in the tanning unit; the patron's recent exposure; and, gradual increases to the session time.

Since the benefits of sunlight cannot be separated from its damaging effects, it is important to understand the risks of UV exposure, and take simple precautions to protect yourself. UV damage is cumulative and may result in negative health effects including:

- eye and skin injury;
- allergic reactions;
- a possible adverse effect on some viral conditions or medical conditions, such as lupus;
- increased risks of developing skin: photoaging, dryness, thinning, and wrinkling;
- an increased risk of skin cancer (sometimes fatal).

- The following factors increase an individual's susceptibility to skin cancer: a family history of skin cancer; Skin Type 1; multiple sunburns; photosensitivity; and, certain types and large numbers of moles.

Skin burns are not immediately apparent. Symptoms usually start about 4 hours after exposure, worsen in 24–36 hours, and resolve in 3–5 days. They include red, tender and swollen skin, blistering, headache, fever, nausea, and fatigue.

It is recommended to space tanning sessions 48 hours apart to ensure that overexposure does not occur.

Skin Type and Skin Sensitivity

Skin type is determined by a person's initial response to sun exposure after a long period of no exposure (winter). It remains the same, regardless of tan developing due to further exposures.

Type	Skin Reaction	Examples
I.	Tans little or not at all; always burns easily and severely; then peels.	People most often with fair skin, blue eyes, freckles, and white, unexposed skin.
II.	Usually burns easily and severely (painful burn); tans minimally and lightly; also peels.	People with fair skin, blue or hazel eyes, blonde or red hair, and white, unexposed skin.
III.	Burns moderately; gains average tan.	Average Caucasian, with white unexposed skin.
IV.	Burns minimally; tans easily and above average with each exposure; exhibits IPD (immediate pigment darkening) reaction.	People with light or brown skin, dark-brown hair, and dark eyes, and whose unexposed skin is white or light brown (Asians, Hispanics and Mediterraneans).
V.	Rarely burns; tans easily and substantially; always exhibits IPD reaction.	Brown-skinned persons whose unexposed skin is brown (East Indians, Hispanics, etc.).
VI.	Tans profusely, never burns; exhibits IPD reaction.	Persons with black skin (Africans and African Americans, Australians and South Indian Aborigines).

Tanning Device Capacities, Intensity, and Proper Exposure Time (Skin Types)

Each facility shall provide this information according to their tanning devices.

Photosensitizing Agents and Drugs

Many medications, topical solutions, and even some foods are photosensitive. Consult a physician before tanning if taking certain medicines, have a history of skin problems, are pregnant or sensitive to sunlight. A representative list of potential photosensitizing drugs and agents can be found online and must be provided with this notice. Several are available:

http://www.lookingfit.com/reports/2007/01/sunlight-and-the-skin.aspx ,
http://sun1.awardspace.com/Causes_Photosensitivity/Drugs/Photosensitizing_medications.pdf .

Pregnancy

Tanning may be inadvisable during pregnancy. Consult a physician if pregnant.

Davis County Health Department

For more information please contact Davis County Environmental Health Services at 801-515-5128