

# School of Dentistry

## Environmental Health & Safety Newsletter

Volume 1, Issue 3

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### ENVIRONMENTAL

*What's going on in SOD and UCLA...?*

There are a lot of environmentally conscious ideas and programs going on in SOD and UCLA please, use the helpful tips below.

#### Clinics:

- Provider's chairs will no longer be covered in plastic
- Please do not put your disposable gowns in trash receptacle outside the clinic- this contaminates possible recyclable materials

#### Offices:

- Use Recycled paper
- Turn off your computers and monitors at the end of the day
- Put printers on "energy saver"
- Use Power Strips
  - Turn power strips off to keep electronics from sucking up energy at night with just one flip of a

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### HEALTH

*For your everyday life.*



## Skin Cancer & Prevention

#### **What is Skin Cancer?**

Cancer develops when DNA, the molecule found in cells that encodes genetic information, becomes damaged and the body cannot repair the damage. These damaged cells begin to grow and divide uncontrollably. When this occurs in the skin, skin cancer develops. As the damaged cells multiply, they form a tumor. Since skin cancer generally develops in the epidermis, the outermost layers of skin, a tumor is usually clearly visible. This makes most skin cancers detectable in the early stages.

#### **Types of Skin Cancer**

Three types of skin cancer account for nearly 100% of all diagnosed cases. Each of these three cancers begins in a different type of cell within the skin, and each cancer is named for the type of cell in which it begins. Skin cancers are divided into one of two classes – non-melanoma skin cancers and melanoma. Melanoma is the deadliest form of skin cancer.

The different types of skin cancer are:

**Basal cell carcinoma (BCC):** The most common cancer in humans, BCC develops in more than 1 million people every year in the United States alone. About 80% of all skin cancers are BCC, a cancer that develops in the basal cells - skin cells located in the lowest layer of the epidermis. BCC can take several forms.

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switch, conserving both energy and money.

- E-waste: Software Central coordinates a campus-wide initiative to recycle old CD, CD-ROM and DVD disks. You can send your old Ink Jet/ Laser Jet printing cartridges to Facilities Management recycling office at: Campus Maintenance c/o Recycling Coordinator 151308
- Use a Cup/Mug- The Student Store offers a discount if you bring your own mug.

For More information:

<http://www.sustain.ucla.edu/index.asp>

## Laboratories:

- **LEEP Program**  
UCLA's Office of Environment, Health and Safety (EH&S) has formed a Laboratory Energy Efficiency Program (LEEP) to promote energy efficiency in campus laboratories. LEEP informs laboratory researchers about ways to reduce energy consumption without compromising research needs.
- Buy equipment that has a lower plug load to reduce electricity demand and CO2 emissions.
- Buy EnergyStar certified equipment whenever possible.
- Send Styrofoam back to vendors for reuse. (Some companies send self-addressed labels for this purpose.)
- All uncontaminated, non-hazardous plastic materials marked #1-7 can be recycled.

For more information:

<http://map.ais.ucla.edu/portal/site/UCLA/menuitem.2bceb61fc98129c1ae13e110f848344a/?vgnnextoid=bb781200f6dcf110VqnVCM300000e3d76180RCRD>

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## SAFETY

*What's new in Dentistry?*

*X-Ray Safety*



Radiation Exposure

Radiation exposure associated with dentistry represents a minor contribution to the total exposure from all sources (about 0.2 percent). The National Council on Radiation Protection and Measurements (NCRP)<sup>[1]</sup> has estimated that the mean effective radiation dose equivalent from all sources in the United States is 3.6 millisieverts (mSv) per year, with about 3 mSv of this dose from natural sources and about 0.6 mSv from manmade sources. The majority of manmade radiation exposure is medical-related. It is estimated that dental X-rays contribute approximately one percent of the total dose of exposure in health care settings. [2]

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Any issues on your mind?

Send me an email:

Lauren Gambon- EH&S  
Specialist for SOD

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It can appear as a shiny translucent or pearly nodule, a sore that continuously heals and then re-opens, a pink slightly elevated growth, reddish irritated patches of skin, or a waxy scar. Most BCCs appear on skin with a history of exposure to the sun, such as the face, ears, scalp, and upper trunk. These tumors tend to grow slowly and can take years to reach ½ inch in size. While these tumors very rarely metastasize (cancer spreads to other parts of the body), dermatologists encourage early diagnosis and treatment to prevent extensive damage to surrounding tissue.

**Squamous cell carcinoma (SCC):** About 16% of diagnosed skin cancers are SCC. This cancer begins in the squamous cells, which are found in the upper layer of the epidermis. About 200,000 cases are diagnosed every year. SCC tends to develop in fair-skinned middle-aged and elderly people who have had long-term sun exposure. It most often appears as a crusted or scaly area of skin with a red inflamed base that resembles a growing tumor, non-healing ulcer, or crusted-over patch of skin. While most commonly found on sun-exposed areas of the body, it can develop anywhere, including the inside of the mouth and the genitalia. SCC may arise from actinic keratoses, which are dry, scaly lesions that may be skin-colored, reddish-brown or yellowish-black. SCC requires early treatment to prevent metastasis (spreading).

**Melanoma:** Accounting for about 4% of all diagnosed skin cancers, melanoma begins in the melanocytes, cells within the epidermis that give skin its color. Melanoma has been coined “the most lethal form of skin cancer” because it can rapidly spread to the lymph system and internal organs. In the United States alone, approximately one person dies from melanoma every hour. Older Caucasian men have the highest mortality rate. Dermatologists believe this is due to the fact that they are less likely to heed the early warning signs. With early detection and proper treatment, the cure rate for melanoma is about 95%. Once it spreads, the prognosis is poor. Melanoma most often develops in a pre-existing mole or looks like a new mole, which is why it is important for people to know what their moles look like and be able to detect **changes** to existing moles and spot new moles.

**Other nonmelanoma skin cancers:** All other skin cancers combined account for less than 1% of diagnosed cases. These are classified as nonmelanoma skin cancers and include Merkel cell carcinoma, dermatofibrosarcoma protuberans, Paget’s disease and cutaneous T-cell lymphoma.

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According to the NCRP, the total limit for occupational exposure is 50 mSv in one year. In addition, the lifetime occupational effective dose is limited to 10 mSv times the number of an individual’s age. The NCRP concludes that occupational exposure for dental personnel will not exceed these limits, excepting for problems associated with facility design, diagnostic equipment performance, or operating procedures. For pregnant dental personnel, the radiation exposure limit is 0.5 mSv per month.

### Radiation Safety Requirements

State laws and regulations set specific requirements for the use of ionizing radiation (which includes X-rays).

Contact the state radiation protection program to determine specific requirements for:

- Inspection and testing for the facility, X-ray machine, radiation monitoring equipment and radiograph processing equipment
- Permits or licensing
- Supervision of personnel
- Training or certification
- Dental office design and radiation shielding
- Record keeping
- Equipment

Radiographic training requirements for dental office personnel frequently differ from and are less rigorous than those of medical personnel who take X-ray. Training requirements for dental office personnel typically are found in state dental practice acts or dental board regulations.

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## Guide to Patient Selection for Dental Radiographs

The ADA, in collaboration with the FDA, developed guidelines for the prescription of dental radiographic examinations to serve as an adjunct to the dentist's professional judgment of how to best use diagnostic imaging. Radiographs can help the dental practitioner evaluate and definitively diagnose many oral diseases and conditions. However, the dentist must weigh the benefits of taking dental radiographs against the risk of exposing a patient to X-rays, the effects of which accumulate from multiple sources over time. The dentist, knowing the patient's health history and vulnerability to oral disease, is in the best position to make this judgment. For this reason, the guidelines are intended to serve as a resource for the practitioner and are not intended to be standards of care, nor requirements or regulations.

For the full article and more information:

<http://www.ada.org/2760.aspx?currentTab=2#top>

### Radiation and Laboratories

Please, note that EH&S needs to be notified when you move locations or move equipment.

Radiation Waste contact: (310) 825-5396

Training: (310) 794-5328

Room Commissioning/Clearance and Lab Radiation Safety

Questions: (310)824-1876

### **Causes**

Sun exposure is the leading cause of skin cancer. According to the American Cancer Society, "Many of the more than 1 million skin cancers diagnosed each year could be prevented with protection from the sun's rays." Scientists now know that exposure to the sun's ultraviolet (UV) rays damages DNA in the skin. The body can usually repair this damage before gene mutations occur and cancer develops. When a person's body cannot repair the damaged DNA, which can occur with cumulative sun exposure, cancer develops.

In some cases, skin cancer is an inherited condition. Between 5% and 10% of melanomas develop in people with a family history of melanoma.

### **Who Gets Skin Cancer?**

Skin cancer develops in people of all colors, from the palest to the darkest. However, skin cancer is most likely to occur in those who have fair skin, light-colored eyes, blonde or red hair, a tendency to burn or freckle when exposed to the sun, and a history of sun exposure. Anyone with a family history of skin cancer also has an increased risk of developing skin cancer. In dark-skinned individuals, melanoma most often develops on non-sun-exposed areas, such as the foot, underneath nails, and on the mucous membranes of the mouth, nasal passages, or genitals. Those with fair skin also can have melanoma develop in these areas.

### **Skin Cancer Rates Rising**

While Americans now recognize that overexposure to the sun is unhealthy, the fact remains that most do not protect their skin from the sun's harmful rays. As a result, skin cancer is common in the United States. More than 1 million nonmelanoma skin cancers are diagnosed each year, and approximately one person dies from melanoma every hour.

If current trends continue, 1 in 5 Americans will develop skin cancer during their lifetime. Melanoma continues to rise at an alarming rate. In 1930, 1 in 5,000 Americans was likely to develop melanoma during their lifetime. By 2004, this ratio jumped to 1 in 65. Today, melanoma is the second most common cancer in women aged 20 to 29.

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### Prevention and Early Detection Key

Sun protection can significantly decrease a person's risk of developing skin cancer. Sun protection practices include staying out of the sun between 10 a.m. and 4 p.m. when the rays are strongest, applying a broad-spectrum (offers UVA and UVB protection) sunscreen with a Sun Protection Factor (SPF) of 30 or higher year-round to all exposed skin, and wearing a protective clothing, such as a wide-brimmed hat and sunglasses when outdoors.

Since skin cancer is so prevalent today, dermatologists also recommend that everyone learn how to recognize the signs of skin cancer, use this knowledge to perform regular examinations of their skin, and see a dermatologist annually (more frequently if at high risk) for an exam. Skin cancer is highly curable with early detection and proper treatment.

For the Full article and more information:  
<http://www.skincarephysicians.com/skincancernet/whatis.html>

*Ask a Dentist...*

*Do you have any questions  
for a practicing Dentist?  
This section is open to  
everyone!*

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### Other Tips

#### Carpool

Why- American workers spend an average of 76 hours per year commuting through rush hour traffic. This adds up to 4.8 billion hours and 30 billion gallons of gas wasted in traffic each year. We can ease some of this strain by carpooling, taking public transit, biking, walking, or a creative combination thereof.

How- visit <http://www.zimride.com/ucla/>;  
<http://commutesmart.info/>

Feedback- I have used this site. It is pretty easy and convenient.

#### Vanpool

Why- To save wear and tear on your automobile, money and gas.

How- visit: <http://map.ais.ucla.edu/go/1001378;>  
<http://commutesmart.info/>

Feedback- Our own Staff and Faculty members use this service.

Brian Lozano- SOD Graphic Designer

Q: How long have you been using a Vanpool?

A: Since, April 18, 2011

Q: Would you recommend others to use it and why?

A: Yes, I would recommend it to others who drive more than 20 miles one way and it saves wear and tear on my vehicle.

Francesca Moore- SOD Clinical Assistant

Q: How long have you been vanpooling?

A: I have been on the van pool 20+ years

Q: What do you like about it?

A: I use to like the ability to relax a little on the way home. Now I am the only driver I don't have that luxury.

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## **Zip Cars**



What are they??

- UCLA students, faculty, and staff can join zipcar for only \$35/year. You also get \$35 in free driving to use your first month!
- Find out more information at: <http://www.zipcar.com/ucla/>

## **Bike Lockers**

- For more information go to: <http://www.bicycleparkingnetwork.com/>

## **Be a Green Commuter- Win Prizes**



How-

- Find out more information at: [http://www.beagreencommuter.com/blog/?page\\_id=3548](http://www.beagreencommuter.com/blog/?page_id=3548)

### **Dates & Deadlines:**

**Submit Post by: May 20, 2011**

**Heart Post by: May 25, 2011**

### **Prizes:**

- Zipcar membership and driving credit
- Regency V.I.P. Movie Tickets
- Chipotle Gift Certificate
- Target gift cards
- Ralphs gift cards
- Trader Joes gift bag
- Movies on Blue ray and DVD
- And more - check back soon for new prizes!

## **Public Transit**

<http://map.ais.ucla.edu/go/1000216>

Six public transit providers + many routes and service options = flexibility and choice.

Ride public transit for the entire quarter at a discounted rate. UCLA Transportation subsidizes at least 50% of pass costs for the following transit agencies for eligible students and employees: [BruinGO](#) (Santa Monica Big Blue Bus & Culver CityBus)

- [Go Metro](#)
- [LADOT Commuter Express](#)
- [City of Santa Clarita Transit](#)

[Antelope Valley Transit Authority](#)

## **Dates**

### **Thursday May 14 - LA Bike to Work Day**

Free rides all day on Metro and other transit operators.

**Pit Stop** at City Hall East between 6 and 9 AM.

- Come show the Mayor and elected officials that we are here in numbers!!

- Then stop by LACBC **pit stop** at 634 S. Spring Street.

<http://www.metro.net/around/bikes/bike-to-work/>

### **Friday May 15 - Bike to School Day**

For more information contact [bikes\\_at\\_school@la-bike.org](mailto:bikes_at_school@la-bike.org). Also visit Safe Bicycle Routes for LA Schools.