What are the health risks associated with UV radiation and indoor tanning?

Exposure to UV radiation can cause melanoma, the most deadly form of skin cancer. Additionally, indoor tanning can cause immune system suppression, sunburn, premature aging, cataracts, and other eye damage.

What are the types of UV radiation?

The three types of UV radiation are UVA (320-400 nm), UVB (280-320 nm), and UVC (100-280 nm). Tanning devices emit both UVA and UVB radiation.

How does UV radiation affect skin?

UV radiation penetrates the superficial layers of skin and activates melanocytes that release melanogen. Melanogen is converted to melanin which gives skin its tanned color. This color is actually the body’s response to injury.

Who is most at risk?

In general people with fair hair, light skin, and light eye color are most sensitive to the harmful effects of UV radiation. Additionally having a large number of moles, an immune deficiency, a chronic disease, a family history of skin cancer, or photosensitivity also makes someone more sensitive to these effects. The FDA also places a higher level of concern on children and teens.

What is photosensitivity?

Photosensitivity is defined as an abnormal skin sensitivity to UV radiation, usually following exposure to certain agents like food, cosmetics, or medications.

What are the federal and state laws and regulations for radiological health and indoor tanning?

Federal:
- Title 21, Code of Federal Regulations (CFR), Chapter 1, Subchapter J – Radiological Health
  - Part 1040 sets performance standards for light-emitting products
  - Part 1040.20 addresses sunlamp products and ultraviolet lamps, and describes performance, labeling, and user-instruction requirements

State:
- Chapter 31 of the Acts of 2016 prohibits anyone under 18 from using or operating a tanning device
- MGL Ch111 s127A-B provide authority for public health regulations known as the State Sanitary Code
- MGL Ch111 s208-214 provide authority for inspection and regulation of tanning facilities
- 105 CMR 123.000 (123) regulates tanning facilities
What does 123 serve to ensure?

123 serves to ensure that:
- Youth under 18 years old do not use or operate tanning devices
- Tanning facilities are clean
- Tanning devices are free of infectious organisms
- Facility operators have been trained to prevent tanning devices from causing short-term injury to customers
- Customers of tanning facilities have been given information regarding the short-term and long-term health effects associated with tanning
- Tanning devices are approved by the FDA, and operated/maintained according to manufacturer’s procedures

What are the four key functions LBOH have to ensure tanning facilities comply with 123?

The four key functions LBOH have to ensure tanning facilities comply with 123 are:
1. Receiving and recording injury reports
2. Reviewing applications and issuing licenses
3. Conducting inspections
4. Taking further enforcement action (if necessary)

What other activities might LBOH do to promote sun safety?

LBOH might offer health promotion and education activities describing the importance of sun safety to residents, community groups, schools, and summer camps. These may be done by cable TV, direct mail, community and government events, task force or coalition participation, press releases, or social media posts.

What other knowledge must tanning operators have?

Operators must also be trained and sufficiently knowledgeable in:
1. Skin type determination and proper use of manufacturer’s recommended exposure schedule
2. Manufacturer’s procedures for the correct operation and maintenance of tanning devices

What safety features does 123 require?

- Physical barriers to protect customers from injuries that could occur by touching or breaking tanning lamps
- Interior temperature of the tanning device cannot exceed 100 degrees F
- Defective/burned-out lamps or filters must be replaced with a type intended for use in that tanning device

What are the additional requirements for stand-up booths?

- Physical barriers or other method to indicate proper exposure distance between UV lamps and skin
- Booths that have been constructed to withstand the stress of use and impact of a customer’s fall
- Doors with rigid construction that open outward
- Handrails or a non-slip floor

How can I learn more?

LPHI On Your Time trainings and resources
- http://sites.bu.edu/masslocalinstitute/training/on-your-time-trainings/
- http://sites.bu.edu/masslocalinstitute/resources
Manual of Laws and Regulations Relating to Boards of Health