

American National Standard

ANSI Z136.3 – 2011

*American National Standard
for Safe Use of Lasers
in Health Care*



**Laser Institute
of America**
Laser Applications and Safety



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Revision of
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**American National Standard
for Safe Use of Lasers
in Health Care**

Secretariat
Laser Institute of America

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**American
National
Standard**

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American National Standard for Safe Use of Lasers in Health Care

1. General

1.1 Scope.

This standard provides guidance for the safe use of lasers in health care. Specific processes are provided to protect anyone who might become exposed to laser radiation and to assist in establishing a program that promotes the safe use of health care lasers. The scope of this standard includes all circumstances when people may be exposed to a laser used in health care applications where:

- 1) Laser systems as medical devices are used for diagnosis of disease, or for preventive, aesthetic, or therapeutic purposes
- 2) Bodily structure or function is altered, or symptoms are relieved
- 3) Any application where a laser is applied by people for health care purposes

This standard applies to any location where a health care laser system (HCLS) is being used as a medical device, including hospital facilities, non-hospital facilities, outpatient facilities, individual medical, dental and veterinarian offices, and non-medical locations, such as salons and spas. Laser radiation as defined herein refers to the ultraviolet, visible, and infrared regions of the electromagnetic spectrum and should not be confused with ionizing radiation.

A laser used in these applications is incorporated into an apparatus that includes:

- 1) A delivery system to direct the output of the laser
- 2) A power supply with laser control and calibration functions
- 3) Mechanical housing with interlocks
- 4) Associated liquids and gases if required for the operation of the laser

This standard pertains to the safe use of the entire apparatus, which is referred to as an HCLS. This standard is intended for use by all people associated with the application, installation, operation, calibration, and maintenance and service of an HCLS and anyone who might be exposed to lasers being used as medical devices for health care applications.

This standard recognizes the need for employers to provide proper laser safety policies and procedures and training in safe laser use for health care applications, in order for their personnel to be responsible in laser use. In this standard, the principal hazard control rests with the laser user whose responsibility is to know and follow the guidelines stated in this standard.

This standard includes engineering, procedural and administrative controls, and laser safety training necessary for the safety of people who may be exposed. These controls are based upon: evaluation of potential hazards from laser radiation; unique problems related to hospitals and operating rooms (ORs) and non-hospital settings such as outpatient clinics, mobile laser units,