LASER CLASSIFICATION
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- **Class 1** devices are inherently safe because of their low output and engineering design which prevents access to dangerous emission.

- **Class 2** lasers emit low-power radiation in the visible band (400-700 nm). Safety is normally afforded by the aversion responses, including blink reflex. For a continuous output, the power limit is 1 mW. Particular care is necessary if sedatives are administered before laser surgery, as the aversion response may become sluggish.

- **Class 3A** lasers are safe for viewing with the unaided eye because the power and irradiance are limited, but intra-beam viewing with optical aids (e.g. the microscope or telescope) may be hazardous. Again, reliance is placed on the aversion response within the visible region. Laser output must be less than 5 mW and irradiance must not exceed 25 W/m². This limits the power through a 7 mm diameter pupil to 1 mW. It should be noted that the US standard does not have an irradiance limit, and this may lead to some devices being incorrectly labeled for the European market.

- **Class 3B** lasers have an upper limit of 0.5 W for continuous output. Direct intra-beam viewing of these lasers is always hazardous, but viewing diffuse reflections is usually safe.

- **Class 4** lasers are high risk devices with power output exceeding those of class 3B. Intra-beam viewing and specular reflections are hazardous. Diffuse reflections can also pose a risk. The laser beam can also ignite flammable material. They must be used with extreme and deliberate caution.