



Risks and Safety Instructions

How safe is it to use a laser?



What is the intended use of a laser?



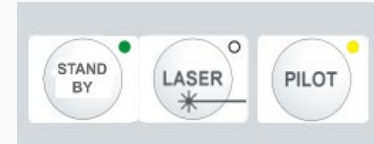
The use of laser devices is absolutely safe!

Only follow the...

7 golden rules for laser safety

1. Set laser to standby mode

- Applies whenever the unit is not being used; this prevents an accidental activation of the laser beam.
- In case of emergency, press the red emergency stop switch



Standby mode

EMERGENCY
STOP SWITCH



2. Keep your distance!

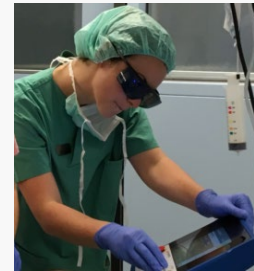
Applies to anybody not directly working with the laser;
minimizes risks

IMPORTANT: The laser device should stand as close as possible by the operating table → no risk of tripping



3. Wear protective goggles in the entire “laser area”!

- Be sure to use suitable protective goggles! Mind the respective wavelength!
- „Laser area“: marked area, in which the value of the permitted maximum radiation is exceeded



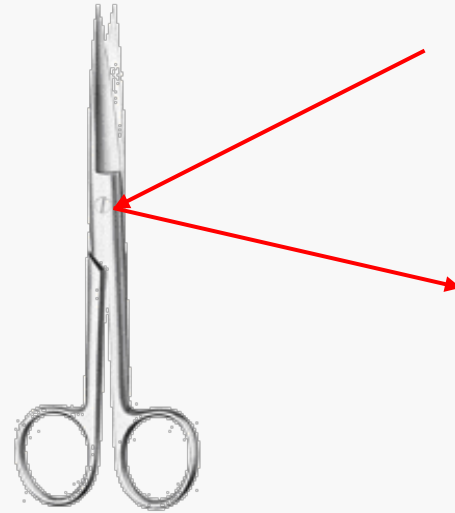
4. Never use the laser as a pointer!

- Your colleagues are not supposed to be a target (risk potential).
- Always remember: Laser radiation is strongly collimated; the laser beam's diameter hardly increases even over long distances.



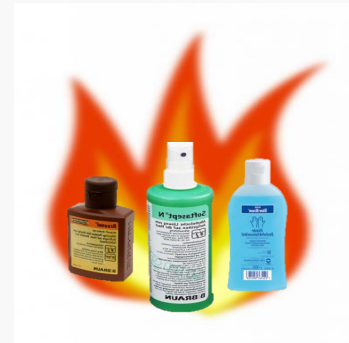
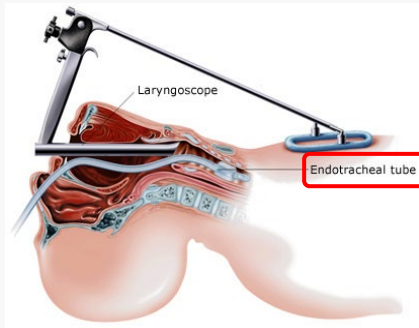
5. Keep laser beam under control!

- Don't point it at instruments or other reflecting objects!
- Recommendation: Use instruments with a matt surface!



6. Don't point the laser at flammable materials!

- Especially flammable tracheal tubes.



7. Provide information and training!

- Detailed, practical instruction through manufacturer (documentation in device booklet of manufacturer)
- Basic laser courses (for example offered by special (laser) institutes)
- Specialized laser courses (according to medical field)

→ „ Every car driver needs a license“



The German Accident Prevention Regulations (OStrV and TROS Laser)

contains the following requirements that must be observed when operating a laser:

- Before using a laser for the first time, both the Employers' Liability Insurance Association and the federal state's Health and Safety at Work authority **must be notified** of its use.
- A "**laser safety representative**" must be appointed.
- During laser operation, the so-called "**laser area**" must be separated off and marked accordingly.
- All persons present must have been duly **instructed** about proper behavior and must **use the required protective equipment**.
- **Radiation hazards** due to reflected or scattered laser radiation **must be avoided**; for this reason, suitable surgical instruments (e.g. with a matt surface) must be used.
- Use warning lamps, low flammability materials and laser safety tubes and probes.
 - National instructions/ regulations regarding the use of laser



An accident doesn't happen accidentally!

It is never the fault of the patient!



Thank you for your attention.
Let's connect!



@klsmartin

