

Safety Measures - Avant LZ30 Class 3B Therapy Laser

Ver SM26i

Legal baseline (what the practice must do)

- Maintain a suitable risk assessment and safe system of work for laser use as required by HSWA and MHSWR, and ensure risks from artificial optical radiation are controlled to as low as reasonably practicable.
- Treat Class 3B lasers as hazardous optical radiation sources requiring specific controls and training.
- Apply relevant laser safety standards for classification and controls.

Roles, competence and training

- Appoint a “Laser Safety Responsible Person” for the clinic.
- Provide induction covering: Class 3B hazards, eye/skin risks, specular reflection risks, controlled area rules, etc.
- Refresher training at least annually, and after any incident, equipment change, or procedural change.

Controlled area and access control

- Use the laser only in a suitable treatment area where access can be restricted during operation.
- Display laser warning signage at entry points when the laser is in use.
- Ensure the beam path is controlled and away from reflective surfaces.

Eye safety (staff, animals and clients)

- Mandatory laser safety eyewear for everyone in the area.
- Never aim the laser toward eyes or head; position the animal and operator to keep the beam below eye level.
- Shield animal eyes where feasible (e.g., physical barrier, drape positioning) and position the head away from the beam.
- Avoid specular reflections: remove/cover shiny instruments in the treatment field.
- Understand Class 3B can be hazardous for intrabeam viewing; diffuse reflections are normally safe, whereas specular reflections can be hazardous.

Device-specific controls (LZ30)

- Confirm key inbuilt safety design features are understood and used correctly:
 - Divergent beam and short nominal ocular hazard distance (NOHD) basis for safe working distance assumptions.
 - ED50 distance around 0.1 m (recoverable-effects threshold) informs conservative proximity rules.
 - One-second power ramp: maintain control of aim during activation; do not activate while oriented toward the face/eyes.
- Confirm correct settings and treatment parameters before enabling emission; avoid “trial firing” in uncontrolled directions.

Thermal/tissue safety (animal-specific)

- Recognise that animals cannot reliably report pain.
- Visually monitor the skin continuously; stop immediately if excessive redness, blistering, or skin changes are seen.
- Apply extra caution and reduced exposure when treating:
 - Scar tissue or areas with reduced innervation/sensation
 - Poorly perfused tissue (faster local temperature rise possible)
 - Darkly pigmented regions and tattoos (higher absorption)
 - Areas with thin skin or limited soft tissue coverage

Incidents, near misses, and escalation

- Stop work immediately for any suspected eye exposure, unexpected tissue injury, equipment malfunction, or breach of controls.
- Report and document incidents and near misses; investigate root cause; update SOP/training if needed.
- Review risk assessment after any incident/near miss or if work practices change.

Records to keep (simple but complete)

- Current laser risk assessment and Safety Measures document available in the clinic.
- Training for each authorised operator.
- Maintenance checks and eyewear replacement when required.
- Incident/near-miss log and corrective actions.

Quick “do not” list, to reinforce safe behaviours

- Do not operate without eyewear for everyone present.
- Do not aim toward the head/eyes or activate while oriented toward faces.
- Do not use reflective instruments in the beam path.
- Do not rely on animal discomfort responses; rely on visual monitoring and conservative technique.

-----0-----