

Faculty of Science – UNSW Optometry Clinic Protocol for Laser Screenings

Authorised by: Kathleen Watt, Clinic Director [date of approval - XX Month Year]
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1. Purpose/background – context for development of the protocol

The University of New South Wales has organised with the School of Optometry and Vision Science to conduct eye examinations of those who work with Class 3b or Class 4 lasers. Patients may be referred to the Clinic from departments within the University or from the private sector.

The current Australian standard for laser safety (AS/NZS 2211.1:2004) does not specify which tests are to be performed during such an eye examination. The laser screening eye examination performed at the UNSW Optometry Clinic is based on the recommendations of the previous standard for laser safety (AS/NZS 2211.1:1997).

2. Scope – to which positions/groups does the protocol apply.

This protocol applies to all students, academic, professional staff in the UNSW School of Optometry and Vision Science for patients of the UNSW Optometry Clinic.

3. Protocol statement

a. Indications

For UNSW students and staff eye examinations are required to be carried out:

- Before commencing any work with class 3b or class 4 lasers.
- Following any apparent or suspected exposure to laser radiation in excess of the maximum permitted exposure.
- Following any serious injury to, or illness of the eye.
- Prior to leaving employment/studies at UNSW, that has involved class 3b or 4 lasers.

b. Making appointments and consultation fees

Patients should identify themselves as requiring a laser eye examination to reception staff when making their appointment.

During the teaching session laser eye examinations will be booked into Stage 5 Primary Care Clinic. This examination is performed under the supervision of a qualified optometrist (Supervising Optometrist). This examination will not incur any fees. Patients are to be advised that the eye examination will take approximately 1.5 hours.

Outside the teaching session, laser eye examination will be performed privately by a Staff Optometrist. This examination will incur a fee of \$100 and will be paid on the day of the examination. There is no Medicare rebate for this examination.

c. Procedure

The Primary Care record card and *Laser Screening Form* need to be completed for the laser screening.

Prior to the consultation the patient will fill out and sign the consent (on the *Laser Screening Form*) for results of the screening to be released to the work supervisor and employer.

The tests to be performed during a laser eye examination include:

1. Ocular history: eye and family history; current eye complaints; aphakia (increased risk of retinal damage from near UV).
2. Medical history: particularly systemic disease with ocular associations.
3. Medications: all medications especially those associated with photosensitisation.
4. Distance habitual visual acuity (with spectacles when appropriate).
 - Refraction performed if distance habitual visual acuity is <6/6.
5. Amsler grid (with near spectacles when appropriate).
6. Ishihara 24 plates and D15 performed monocularly.
7. Anterior segment check
8. IOP*
9. Dilated fundus examination[^] including a thorough assessment of the crystalline lens.
10. Fundus photography[#]
 - Fundus photography must occur after pupil dilation.
 - Right and left central 45 degree photographs taken.
 - **Photographs must be taken by Supervising Optometrist or sighted by the Supervising Optometrist (before the patient leaves) to ensure that the image is of good quality.**
 - Photographs are not required to be printed.
11. Supervising Optometrist to print name and sign completed *Laser Screening Form*.

Following completion of the laser screening examination place completed and signed *Laser Screening Form* in patient file and return to reception staff.

Files will be reviewed by a staff optometrist within one (1) week of the examination. The Staff Optometrist will send an electronic copy of the *Laser Screening Form* to the patient, their nominated work supervisor and the Optometry Clinic (optomclinic@unsw.edu.au) via email. If the patient is a staff member, the UNSW Radiation Safety Officer (Robert Armstrong: r.armstrong@unsw.edu.au) will also receive a copy of the email.

*See *Protocol for Tonometry*; [^] See *Protocol for Dilated Fundus Examination*; [#]See *Protocol for Fundus Photography*

4. Roles and responsibilities

See *Protocol For Tonometry, Protocol For Dilated Fundus Examination and Protocol For Fundus Photography for additional roles and responsibilities related to these techniques.*

a. Student Clinician

It is the responsibility of the student to follow the procedure as outlined above. They must complete both the (green) Primary Care record card and the *Laser Screening Form*.

The student must ensure **all photographs are checked for quality** by their Supervising Optometrist before their patient leaves and retake photographs where necessary.

b. Supervising Optometrists

For laser screenings it is recommended that the Supervising Optometrist take the fundus photographs. However, due to time constraints this may not be possible. In this case, the Supervising Optometrist **must sight and approve the photographs before the patient leaves.**

The Supervising Optometrist will ensure that all tests required for the Laser Screening are completed and the results are properly recorded on the *Laser Screening Form* and the Primary Care record card.

Once the examination is complete the Supervising Optometrist will check both record forms and sign off on each.

c. Staff Optometrists

Staff Optometrists will follow the outlined protocol for laser eye examinations with private patients. Furthermore, Staff Optometrist will be responsible for reviewing the files and organising reports to be sent electronically to the patient, their work supervisor and the UNSW Radiation Safety Officer.

d. Receptionists

The reception staff will ensure persons identifying themselves as requiring a laser screening will be booked into the correct clinic. They will inform the patient of fees where applicable.

Reception staff will store files in the appropriate area such that the Staff Optometrist can review the files within the week.

e. Clinic Director

It is the role of the Clinic Director to ensure the Clinic protocols are implemented in their entirety and review protocols as required.

5. References

UNSW Laser Safety Guideline (HS712):

http://www.ohs.unsw.edu.au/ohs_policies/guidelines/Laser_Safety_Guideline.pdf

AS/NZS 2211.1:2004 Safety of laser products - Equipment classification, requirements and user's guide

AS/NZS 2211.1:1997 Laser safety - Equipment classification, requirements and user's guide