

Image quality

When photographing with the Oxymap Retinal Oximeter it is important that the images which are acquired are of good quality. Poor focus, shadows, hues, reflections in the image, which are sometimes caused by poor dilation and sometimes by cataract, may affect saturation and vessel diameter measurements. There are several ways to reduce possible confounding factors:

Dilatation – Better dilation will on average give you better and sharper images.

Small pupil – Use the small pupil setting on the fundus camera if needed.

Small aperture – Try the small aperture setting on the fundus camera. This gives sharper images but they will be darker if the same flash intensity is used. Recommended minimum flash intensity is 50.

Focus – Make sure that what you see in focus in the camera is exactly in focus on the images. Adjust the dioptric power of the optical finder (cf. "Basic operations" chapter in the instruction manual of the fundus camera). If the fundus camera is equipped with split switch, try to use the split for focus assistance.

Alignment – Use the alignment bright spots to make sure that the retina is evenly illuminated (cf. "Color photography" chapter in the instruction manual of the fundus camera).

Flash – Use sufficient flash intensity. Start with flash intensity 50 and increase in steps if the images look grainy.

Remember that the oximeter is only compatible with 50° angle of coverage and the supplied filter set up in the F2 filter setting.

Additional notes on image quality

- Do not use images that have poor contrast and appear grainy.
- Avoid taking images very peripherally. The illumination will be degraded and uneven.
- Make sure that the image quality in the groups you compare is similar so that possible effects of poor image quality are canceled out at least to some extent.