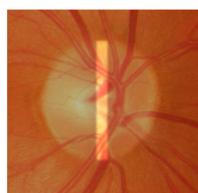


⊗ | **Optic disc size can be quickly assessed at the slit lamp**

**The Science behind the Tip**

Optic disc size influences the significance of the cup/disc ratio<sup>1,2</sup>. Disc size can be estimated using a handheld high power convex lens and the adjustable beam height on the slit lamp<sup>3</sup>. A small beam is adjusted to the vertical diameter of the optic disc (most accurate in a dilated fundus) and its length is read on the scale of the slit lamp (Figures).



This value needs to be modified by a magnification factor depending on lens power and material (Table)<sup>4</sup>, and may vary slightly with its distance from the cornea and in high refractive disorders (> +/- 8D).



A disc is considered small if  $\leq 1.2$  mm and large if  $\geq 1.8$  mm<sup>5</sup>. Since we mostly use one lens, we can calculate our personal slit lamp mm-range of normal disc size. Regardless of minor inaccuracies, we are able to confirm our clinical impression of abnormal disc size and identify a very small or large disc.

lens	+60D Volk-Nikon	+78D Volk	+90D Volk-Nikon	Superfield NC Volk
correction factor	0.94-1.03	1.13	1.36-1.59	1.50

**References**

1. Bengtsson B. The variation and covariation of cup and disc diameters. *Acta Ophthalmol (Copenh)*. 1976;54:804-18.
2. Garway-Heath DF, Ruben ST, Viswanathan A, Hitchings RA. Vertical cup/disc ratio in relation to optic disc size: Its value in the assessment of the glaucoma suspect. *Br J Ophthalmol*. 1998;82:1118–24.
3. Hoffmann EM, Crowston LM, Zangwill JG, Weinreb RN. Optic disc size and glaucoma. *Surv Ophthalmol*. 2007;52:32-49.
4. Lachkar Y, Sellem E. La papille glaucomateuse en pratique. Chauvin B&L, France, 2004, 13-20.
5. Crowston JG, Hopley CR, Healey PR, et al. The effect of optic disc diameter on vertical cup to disc ratio percentiles in a population based cohort: Blue mountains eye study. *Br J Ophthalmol*. 2004; 88:766–70.