Confocal microscopy is a modern imaging device that has been extensively applied in skin oncology. More specifically, for tumor margin assessment, it has been used in two modalities: reflectance mode (in vivo on skin patient) and fluorescence mode (on freshly excised specimen). Although in vivo reflectance confocal microscopy is an add-on tool for lentigo maligna mapping, fluorescence confocal microscopy is far superior for basal cell carcinoma and squamous cell carcinoma margin assessment in the Mohs setting. This article provides a comprehensive overview of the use of confocal microscopy for skin cancer margin evaluation. Copyright © 2016 Elsevier Inc. All rights reserved. KEYWORDS: Confocal microscopy; Ex vivo; In vivo; Mohs surgery PMID:27692455 DOI:10.1016/j.det.2016.05.012