The preparation of tissue by a histotechnologist is as integral to the success of Mohs surgery as the proper taking of a layer, yet a multitude of tissue processing methods are currently used. Variations exist because various methods require differing levels of technical expertise and result in varied tissue quality, turn-around times, and degrees of tissue “facing.” The term “facing” is here defined as the unnecessary sacrifice of tissue from the deep or peripheral surgical margin with a microtome before sectioning. Facing includes trimming performed intentionally but unnecessarily, accidentally, or out of necessity because of one’s choice of embedding and freezing method.

The present study estimates the degree to which tissue facing causes false positives by comparing the number of stages necessary to clear tumor per Mohs case at two nearly identical surgical facilities with the same physician over a one year period. The laboratories differ only with respect to their reliance on facing tissue during slide preparation: Site A intentionally faces the blocks whereas Site B does not. Tissue thickness lost during trimming and the processing times of each block was recorded for each facility.

Comparing Sites A and B, stages per case were 1.92 and 1.53, respectively (p < .01) and trimming depths before the first section were 325 and 187 microns (p < .01). Facing the block is associated with 0.39 more stages per case and, by inference, a false positive rate of approximately 39%. On average, the technologists at site A face away 138 microns more tissue than do the technologists at site B.

That only 138 microns of additional trimming was associated with a likely 39% false-positive rate indicates that no amount of facing is advisable or acceptable. Also, we strongly suggest that the glass slide technique be adopted because of its ability to place the entire surgical margin in a single plane and allow minimal trimming before sectioning. Seemingly innocuous variations in method can have a dramatic clinical effects. Tissue sparing techniques are the only options true to the goals of Mohs surgery and patients’ best interests.