Margin Sampling Techniques

Margin Sampling – There are two methods of sampling margins. Each has its own merits and proper usage. Remember to dictate how you sampled the margin. Example: "A8: Lateral margin, perpendicular" or "B2: proximal colonic margin, en-face"

1. **Perpendicular**: The name is self-explanatory. Margins taken perpendicular to the plane of the surgical resection only sample a small amount of margin tissue, but are useful in that the distance of the tumor from the margin can be determined by histologic examination. <u>In most instances, perpendicular margin sections are preferred, as distance to margin can be determined</u>. Most importantly, if the tumor is close to the margin (close enough to get both the margin and tumor in one cap), use perpendicular margins.
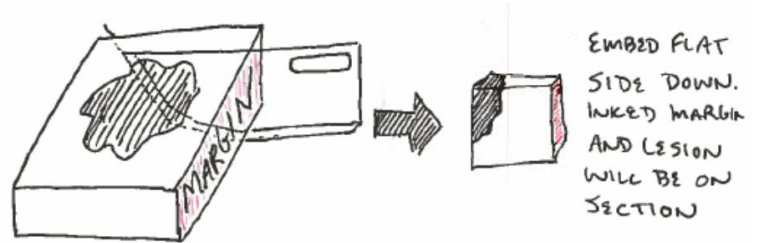
2. **En-face**: Margins in which the section is taken parallel with the plane of the surgical margin. This is also referred to as a "shave margin". The benefits are that a large area of margin is sampled. The detriment is that margin assessment only answers the question of positive versus negative, and does not give distance to margin when positive. <u>En-face margins are used infrequently, typically when sampling peripheral margins when the tumor is widely clear grossly, for instance at the edge of large skin ellipses, bowel margins, and pancreatic body margins</u>.

For consistency across procedures (i.e. RFS *and* permanent sections), **ALL EN-FACE MARGINS SHOULD BE SUBMITTED IN CAP TRUE MARGIN FACING UP**. Consistently following this procedure ensures that all personnel (including the interpreting pathologist) know how the tissue on the slide relates to the true surgical margin in en-face margins. In other words, the first cut into the tissue is represents tissue adjacent but not at the margin. If tumor is present, deeper sections would be required to determine if tumor is transected at the true margin. As these margins are taken when the margin is grossly widely clear, this scenario is likely to occur infrequently.