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Troubleshooting frozen sections: How to achieve the perfect section

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Embedding tissue

Introduction

To perform rapid microscopic analysis of a specimen for diagnosis by frozen section is essential in almost all major surgeries. Without a proper diagnosable section it is impossible for the pathologist to render a report and it will not be helpful for the surgeons to proceed with the procedure. This guide is intended to provide the scientists and pathologists who perform frozen sections with some useful troubleshooting techniques.







Sections curling Gently press your thumb against OCT mould to increase temperature to prevent curling.

Depending on the size of tissue, a small amount of OCT is considered optimal for achieving a perfect section, as it reduces the surface area of the mould coming into contact with the blade.









Sections not forming/sticking to blade surface

Chatter during sectioning

Orientate specimen so that the smaller surface area is coming into contact with blade.

Apply cryospray to the blade, OCT mould and brush.

Conclusion

Achieving the perfect frozen section is a conglomeration of multiple factors, from the amount and positioning of OCT, blade sharpness, tightening screws being secured and the cryochamber being set to the correct temperature for that tissue type.

References

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