



**Unlocking
Common ED
Procedures**

Crackin' the Cranium: A Review of Cranial Burr Hole Decompression

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✓ Rapid Procedure Review

1. Confirm indication for trephination.
2. Discuss with neurosurgery.
3. Prepare the equipment and the patient.
4. Emergency department skull trephinations are typically performed in the temporal location but confirm on CT.
5. Measure the skull thickness on CT to set stopper depth.
6. Shave the hair in the area, sterilize and drape.
7. Anesthetize area.
8. Make a vertical skin incision down to the periosteum at a point that is 2 cm superior and 2 cm anterior to the tragus if temporal location.
9. Blunt dissect down to the periosteum and then place retractor after reaching the periosteum.
10. Have an assistant hold the patient's head firmly prior to and while drilling.
11. Apply the trephine with gentle, steady pressure until the skull is penetrated. The bone fragment may come out in the device or may need to be removed with forceps.
12. Once the bone fragment is removed, the clot may extrude spontaneously or require gentle suction with a catheter.
13. Clamp/ligate bleeding vessel if identified.
14. Prepare patient for transfer for definitive neurosurgical care.



Looking for more detailed information on procedural steps, indications, contraindications, pearls, and pitfalls?

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