Acute Management of an Avulsed Permanent Tooth with an Open (>1 millimeter) Apex

Instructions to Individual at Site of Avulsion:
- Seek medical attention if loss of consciousness, signs of neurological impairment, or other major medical concerns.
- Rinse avulsed tooth gently in milk, saline, or saliva; use care not to touch root with fingers.
- If possible, replant avulsed tooth.
- If unable to replant tooth, place in physiologic storage medium (milk, Hank’s Balanced Salt Solution [HBSS], saliva, or saline).
- Seek immediate dental treatment.

Upon Arrival to Dental Facility:
- Perform general neurological assessment (See also Acute Traumatic Injuries: Assessment and Documentation).
- If tooth was not previously replanted or stored in physiologic medium, gently rinse with saline, milk, or HBSS to remove visible surface contaminants then store in physiologic medium.
- Review medical history (including tetanus immunization status) and details of injury.
- Complete clinical and radiographic evaluations.
- Consider taking photographs.
- Evaluate for abuse.

Confirmation of Positioning:
- Verify the correct position of the tooth clinically and radiographically.
- Reposition if necessary.

Stabilization:
- Stabilize the tooth using a passive, flexible wire or nylon fishing line bonded with composite. Placement should allow area to be cleansable.
- Exception: Alveolar or jaw fracture requires a more rigid splint.

Postoperative Management: Prescriptions, Splint Removal, and Follow-Up
- Prescribe 7-day course of antibiotics (e.g., amoxicillin or penicillin; alternative for penicillin-allergic patients; doxycycline has demonstrated antiresorptive, anti-osteoclastic, anti-inflammatory, and antibacterial effects).
- Prescribe chlorhexidine mouth rinse 2 times/day for 2 weeks.²
- Refer to medical professional for tetanus booster as needed.
- At 2 weeks, remove splint (unless bony fracture occurred) and confirm stability. Evaluate clinically and radiographically for pulpal revascularization, infection, pulpal necrosis, and root resorption.
- Initiate pulpal revascularization, apexification, or root canal treatment as soon as definitive clinical and/or radiographic pathology presents.²
- Frequent, regular follow-up evaluations (e.g., every 4 weeks) are indicated initially.


References
Acute Management of an Avulsed Permanent Tooth with an Closed (<1 millimeter) Apex

Instructions to Individual at Site of Avulsion:
- Seek medical attention if loss of consciousness, signs of neurological impairment, or other major medical concerns.
- Rinse avulsed tooth gently in milk, saline, or saliva; use care not to touch root with fingers.
- If possible, replant avulsed tooth.
- If unable to replant tooth, place in physiologic storage medium (milk, Hank's Balanced Salt Solution [HBSS], saliva, or saline).
- Seek immediate dental treatment.

Upon Arrival to Dental Facility:
- Perform general neurological assessment (See also Acute Traumatic Injuries: Assessment and Documentation).
- If tooth was not previously replanted or stored in physiologic medium, gently rinse with saline, milk, or HBSS to remove visible surface contaminants then store in physiologic medium.
- Review medical history (including tetanus immunization status) and details of injury.
- Complete clinical and radiographic evaluations.
- Consider taking photographs.
- Evaluate for abuse.

Confirmation of Positioning:
- Verify the correct position of the tooth clinically and radiographically.
- Reposition if necessary.

Stabilization:
- Stabilize the tooth using a passive, flexible wire or nylon fishing line bonded with composite. Placement should allow area to be cleansable.
- Exception: Alveolar or jaw fracture requires a more rigid splint.

Postoperative Management: Prescriptions, Root Canal Treatment, Splint Removal, and Follow-Up
- Prescribe 7-day course of antibiotics (e.g., amoxicillin or penicillin; alternative for penicillin-allergic patients; doxycycline has demonstrated antiresorptive, anti-osteoclastic, anti-inflammatory, and antibacterial effects).
- Prescribe chlorhexidine mouth rinse 2 times/day for 2 weeks.
- Refer to medical professional for tetanus booster as needed.
- Initiate root canal treatment (e.g. calcium hydroxide) within 2 weeks of replantation.
- At 2 weeks, remove splint (unless bony fracture occurred) and confirm stability; rigid splint placed for bony fracture should remain for 4 weeks.
- Follow-up evaluations: 1 month, 3 months, 6 months, 12 months, and annually for 5 years.


References