

Emergency Nursing

From the Publishers of ED Nursing®

Reports

Wound Management

Properties of Commonly Used Local Anesthetics

AGENT (BRAND NAME)	CLASS	CONCENTRATION (%)	ONSET (MIN)	DURATION (HR)	MAXIMAL DOSE (MG/KG)
Procaine (Novocaine)	Ester	0.5-1.0	2-5	0.25-0.75	7
Procaine with epinephrine				0.5-1.5	9
Lidocaine (Xylocaine)	Amide	0.5-2.0	2-5	1-2	4.5
Lidocaine with epinephrine				2-4	7
Bupivacaine (Marcaine)	Amide	0.125-0.25	2-5	4-8	2
Bupivacaine with epinephrine				8-16	3

Adapted from: Hollander JE, Singer AJ. Laceration management. *Ann Emerg Med* 1999;34:356-367.

Wounds Managed with Secondary or Delayed Primary Closure

- Wounds that already are infected
- Wounds that are heavily contaminated and/or with visible debris
- Those with extensive tissue damage involving both the wound and surrounding skin
- Most bites on the trunk or extremities
- Those with a retained foreign body
- A major tissue defect that cannot be closed without excessive tension

Suture Size and Timing of Removal

LOCATION OF WOUND	SUTURE SIZE	TIMING OF REMOVAL
Scalp	4-0, 5-0	5-8 days
Face	5-0, 6-0	3-5 days
Chest/abdomen	3-0, 4-0	7-10 days
Back	3-0, 4-0	12-14 days
Upper extremity	4-0, 5-0	8-10 days
Lower extremity	3-0, 4-0	8-12 days
Foot	3-0, 4-0	10-12 days
Joint—extensor surface	3-0, 4-0	10-14 days
Joint—flexor surface	4-0, 5-0	8-10 days

Pearls and Pitfalls of Tissue Adhesive Use

PROBLEM	PREVENTION
Adhesive sticks to gloves	Use vinyl gloves instead of latex; adhesive easily is removed with gentle traction
Gauze sticks to skin	Dampen gauze with water or saline
Adhesive runs into eyes	Position sensitive areas uphill from area where adhesive is being applied and surround area with damp gauze
Adherence to plastic forceps	Use metal instruments; less adherent
Seepage into wound	Do not release wound edges until polymerization is complete; may remove with petrolatum-based ointment
Hematoma formation	Ensure complete hemostasis prior to wound closure
Adherence to skin sutures	Do not apply adhesive over or near skin sutures that already have been placed

Simplified Tetanus Prophylaxis in the Acute Wound

PRIMARY IMMUNIZATION	TD	TIG
Not complete	Yes	Yes
Completed, < 5 yrs	No	No
Last booster > 5 yrs	Yes	No

Post-Exposure Prophylaxis Recommendations

ANIMAL	DISPOSITION	RECOMMENDATION
• Dogs, cats, ferrets	Healthy and available for 10 days observation	No prophylaxis unless animal develops symptoms
	Rabid or suspected rabid	Immediate vaccination
• Skunks, raccoons, foxes, lagomorphs, large rodents, other mammals	Consider individually	Consult health department

Indications for Admission with Human Bites to the Hand

- Wound greater than 24 hours old
- Established infection
- Penetration of the joint or tendon sheath
- Presence of foreign body
- Unreliable patient or poor home situation
- Diabetic or otherwise immune compromised

Indications for Prophylactic Antibiotics

- Extremity bite wounds
- Punctures
- Intraoral lacerations that are sutured
- Orocutaneous lip wounds
- Highly contaminated wounds
- Involvement of tendons, bones, or joints
- Delayed closure greater than 12-24 hours
- Patients with immune compromise

Animal Bite Wounds with Increased Risk for Infection

- Patient older than 50 years old
- Puncture or hand wound
- Wound that is sutured
- Wound greater than 24 hours old
- Full-thickness skin puncture
- Wounds requiring debridement
- Wounds involving joints, tendons, or ligaments
- Wounds associated with fractures
- Wounds in patients with high-risk hosts

Supplement to *Emergency Nursing Reports*, April 2003. **Nurse editor:** Reneé Semonin Holleran, RN, PhD, Chief Flight Nurse, Clinical Nurse Specialist, University Hospital, Cincinnati. *Emergency Nursing Reports' "Rapid Access Guidelines."* Copyright © 2003 Thomson American Health Consultants, Atlanta. **Vice President and Group Publisher:** Brenda L. Mooney. **Editorial Group Head:** Valerie Loner. **Senior Managing Editor:** Joy Daughtery Dickinson. For customer service, call (800) 688-2421. This is an educational publication designed to present scientific information and opinion to health care professionals. It does not provide advice regarding medical diagnosis or treatment for any individual case. Not intended for use by layman.