

Canine Care in the Wild: Wilderness First-Aid for Dogs

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Disclosures



This is all done out of my own self-interest/care for my pup!



I'm an MD, not a DVM

Why Do We Care?

- Increasingly taking our dogs into wild and dangerous places
- As medical professionals we often want to apply our skills broadly, and often can!



Objectives



Identify common wilderness hazards for dogs

Recognize environmental risks, most common injuries



Hands-on first aid techniques

Provide guidance on assessing a dog's condition in the wilderness
Information regarding basic first aid techniques and first-aid kit



Emergency situations and evacuation guidelines

Outline steps to take when things are more serious in various injury patterns for evacuation and treatment

Approach to injury in the wilderness

- Prevention and Preparedness first!
- ABC's
- Secondary/Full exam
- Interventions if needed
- Assess need for emergent/urgent evacuation



Prevention and Preparedness

- Is your dog in shape to handle the exercise or environment?
- What area are you traveling to? Potential or known hazards?
- What will you bring with you?
- Are you ready if your dog gets injured?
- What if you're 10 miles away from help?

Dog Physiology and Vital Signs

- Temperature: normal from 37-39C (up to 102.5F)
 - + Exercising dogs can reach up to 40.5C safely, but high risks heat stroke
- Thermoregulation is via panting, no sweating
 - + Kidneys are much faster at compensate for respiratory alkalosis in dogs
- Heart Rate: In larger dog breeds, normal 60-140s, small 70s-180s.
- Respiratory rate: much higher generally (can be 200-300s) → accounts for ability to thermoregulate via panting
- Perfusion: Hard to check BPs, but pulse can be checked in femoral triangle → palpable down to ~60 mm Hg

How to examine our dogs

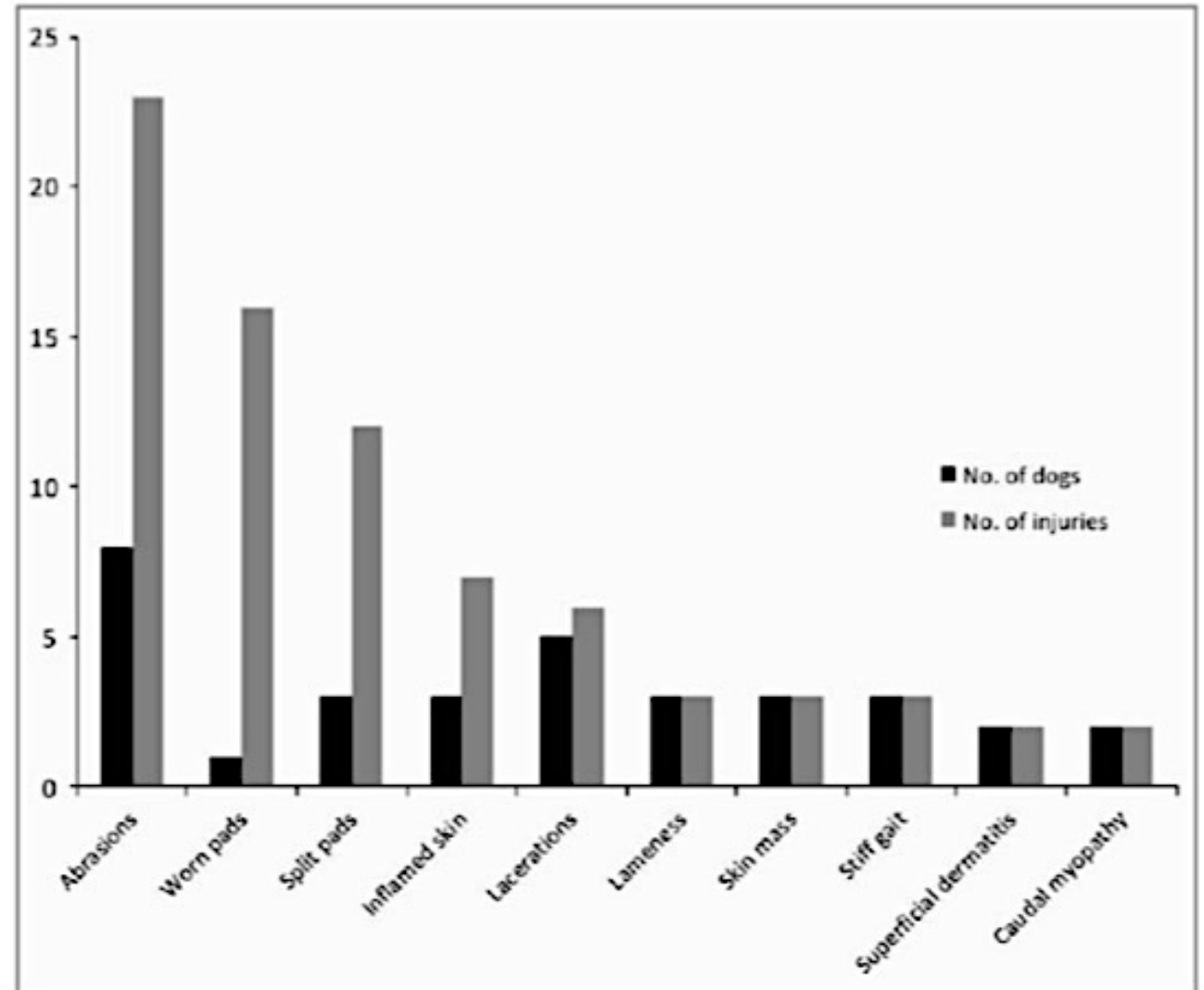


- Nose
- Gums
- Teeth
- Eyes
- Ears
- Legs and Feet
- Trunk
- Skin/Coat

Common Hazards

- Environmental risks
 - + Weather: Extreme heat, cold, wet
 - + Flora: Poison Ivy/Oak, Foxtail, Toxic ingestions
 - + Fauna: Porcupines, skunks, other large animals
 - + Terrain: Rocks, barbed wire/fences, sharp sticks/twigs

Most common: minor MSK injuries
(lacerations, abrasions, broken bones)



Trauma

- Hair trimmed from wound margins
- Human sutures are viable for closures, though staples maybe more practical
- Watch for limping → sometimes hard to tell which foot/leg is affected
 - + Evaluate as would a pediatric patient, inspection, ROM, pressure, skin signs/etc.
- **BOOTIES!**

Pad/Paw Injuries

- General wound care principles apply
 - + Recognition**
 - + Inspection
 - + Clean/rinse
 - + Stop bleeding
 - + Need for repair?
 - + Bandage
 - + Assess ability to evacuate



Heat Stroke

- Risks: Hot weather, heavy exercise, under-conditioning, dehydration, high humidity
- Symptoms: Tachypnea, stupor, coma, seizures, collapse, shock
- Treatment: Recognize early signs, check rectal temp (104-107F), cold water immersion (to 103, no more)



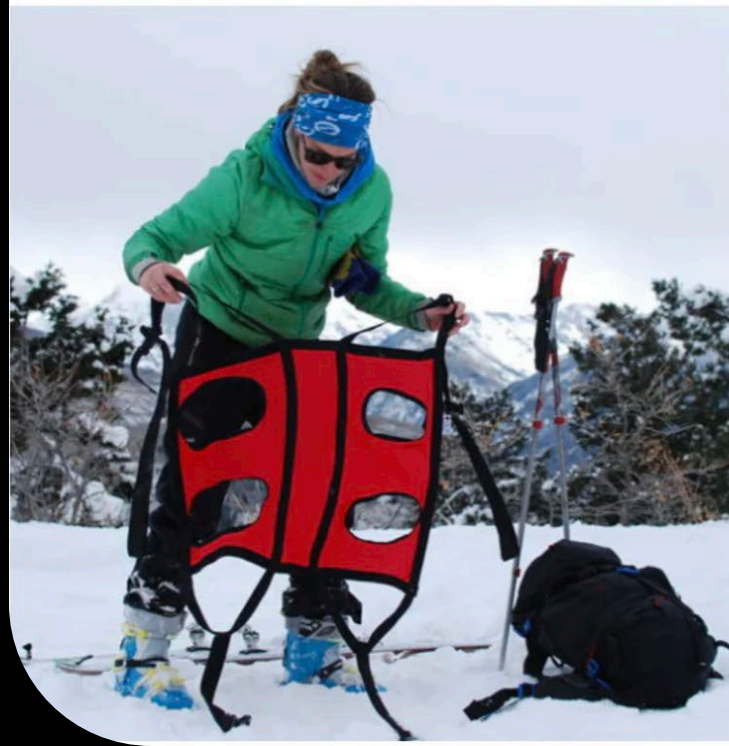
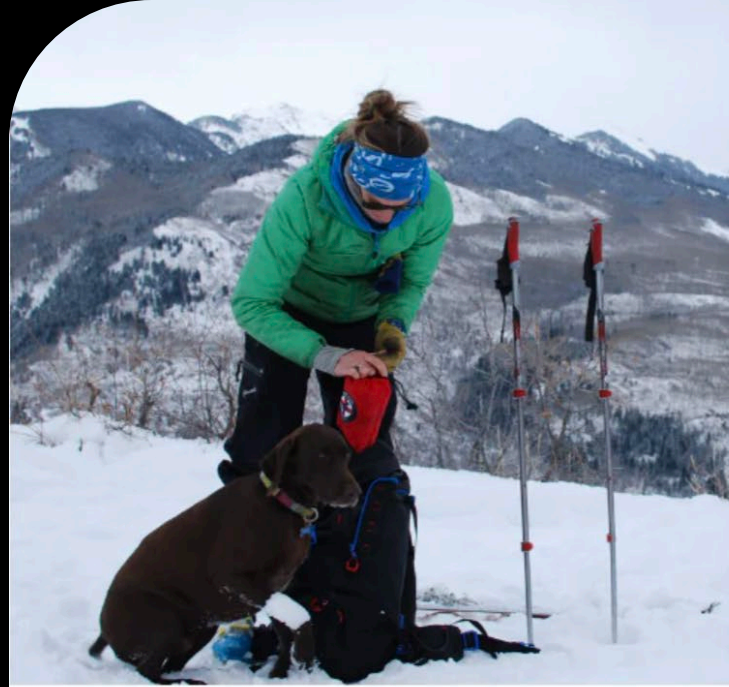
Frostbite

- Rare in dogs
- Breed/coat dependent
- Happens mainly on tips of tail, ears, penis
- When recognized (often hard as may be no signs) → rewarming with lukewarm water and avoid subsequent cold exposure
- Do not rub or massage the tissue



Evacuation

- Think about always having a potential “out” for you and your dog
- Some SAR groups may rescue injured canines, but may be on your own
- Evac tools
 - + Fido Pro
 - + MacGyvered others



First Aid Kit

- Many of the same instruments as humans
- Should be tailored to the environment and anticipated hazards



First Aid Kit: Instruments

Hemostat

Trauma Shears

Toenail Clippers

Rectal thermometer

Hair trimmer/shaver

Suture material

First Aid Kit: Disinfectants and Antibiotics

Betadine

Eyewash (artificial tears)

Bacitracin

Erythromycin eye ointment



First Aid Kit:

Medications

- Enteric-coated Aspirin
- Prednisone
- Benadryl
- Other dog-friendly NSAIDS (Carprofen, Meloxicam)
- Acetaminophen (often used post-surgery in dogs, never in cats)

First Aid Kit:

Dressings
and
Bandages

Gauze

Cast-pad roll

Adhesive tap

Vetwrap (Coban)

First Aid Kit:

Miscellaneous

Muzzle

Dog Boots

Lidocaine and sutures

Surgical Stapler

3% Hydrogen Peroxide

Salt

Summary



Identify common wilderness hazards for dogs



Hands-on first aid techniques



Emergency situations and evacuation guidelines



Questions?



References

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