

FOR POLICE K9 HANDLERS, TACTICAL CANINE TEAMS, MWD HANDLERS, SAR UNITS & K9 SUPERVISORS

K9 TACTICAL TRAUMA CARE & HANDLER MEDICAL READINESS

GUIDE & OPERATIONAL EMERGENCY ACTION PLAN FOR WORKING-DOG TEAMS

Canine MARCH, heat and bloat protocols, toxin exposure, bite-safe handling, extraction, the three-tier hardware ladder, veterinary dispatch and a daily inspection card — for the handler who carries two lives.

PRIMARY K9 TEAM DATA BLOCK · UNIT BINDER, CRUISER AND KENNEL

HANDLER NAME | CALL SIGN | AGENCY / DEPARTMENT

CANINE NAME | BREED | MICROCHIP ID | WEIGHT (LB / KG)

VEHICLE / UNIT # | PRIMARY DISPATCH FREQUENCY / CHANNEL | DESIGNATED 24/7 EMERGENCY VETERINARY HOSPITAL (NAME, PHONE, ADDRESS)

ALTERNATE VETERINARY FACILITY | EFFECTIVE DATE | ANNUAL REVIEW DATE

TEAM TYPE ☐ Patrol / detection ☐ SWAT / tactical ☐ Military working dog ☐ Search and rescue ☐ Border / federal

Developed under the clinical direction of Marco R. Torres, MD, NRP
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Evidence-based canine prehospital trauma standards · ASTM D6978 · Canine MARCH · Service-Disabled Veteran-Owned Small Business

SECTION 01

Executive summary: the dual-responsibility burden



Shift-change check at the tailgate: coat, pads, gait, hydration, and the seals on the K9 kit. Illustration.

A handler on a call carries two casualties in waiting: a person and a dog. The dog cannot say where it hurts, cannot call for help, and is treated by the person with the least veterinary training on scene — the handler — with a kit designed for a species with cylindrical legs and no fur. This guide closes that gap: what kills working dogs, what the handler can do in the first minutes with the kit on the belt and the kit in the cruiser, and how to hand off to the emergency veterinarian who was warned you were coming.

What kills working dogs. In the only large review of civilian law-enforcement canine deaths (867 deaths, 2002–2012), 318 were traumatic, and three causes accounted for nearly three-quarters of those: vehicle strikes (25.8 %), heatstroke (24.8 %) and gunshot wounds (23.0 %). Three in four heatstroke deaths were dogs left in a patrol vehicle, a third of those with a failed heat alarm. Heat and hemorrhage are the two that the handler's own actions decide.

25.8%
of traumatic LE canine deaths were vehicle strikes (2002–2012 review)

24.8%
heatstroke — three in four in a patrol vehicle; often a failed heat alarm

23.0%
gunshot wounds — the hemorrhage and chest-trauma cases this guide equips

3–5 min
planning window from an uncontrolled femoral or brachial arterial wound to collapse

Three operational imperatives

IMPERATIVE	WHAT IT MEANS ON SHIFT
1 · The handler is the first responder for the dog	EMS crews are trained and equipped for people and many are barred by protocol from treating a dog; the emergency veterinarian is a drive away. The first ten minutes are the handler's, with canine-specific gear on the body and in the vehicle (Section 14)
2 · Prevention beats treatment for the two big killers	A kennel heat alarm that is tested, a temperature rule for the track, and hydration discipline prevent most heat deaths; a muzzle, restraint and a litter make the trauma cases treatable
3 · The veterinarian is part of the plan before the shift	A designated 24/7 emergency hospital with the route driven, a standing-orders letter from the unit veterinarian for the items on p. 12, and a dispatch script (p. 16) so the surgeon is waiting at the door

SCOPE

Written for the handler without veterinary training: the interventions here are bleeding control, airway positioning, chest seals, shock recognition, cooling, restraint, extraction and transport. Anything involving a needle or a drug requires the unit veterinarian's written authorization and training, and is marked as such.

SECTION 02

Canine anatomy versus human gear

A dog is not a small person. Four differences decide what works in the field: the limbs are cones, not cylinders; the body is covered in hair that defeats adhesives and hides wounds; the great vessels of the limbs run on the inside of the leg where a handler rarely looks; and the baseline vital signs are faster and hotter than a human's, so a human's alarm thresholds are wrong for a dog.

The conical limb failure mode

A human windlass tourniquet is engineered to seat on a cylinder. Placed on the taper of a dog's thigh or upper foreleg, it migrates toward the paw as the windlass is turned and as the dog moves, loses compression, and can crush the nerves that run just under the skin. The published canine tactical casualty care guidance is explicit: windlass devices built for people (C-A-T, SOF-T class) are **not first-line on a dog**. The doctrine in Section 03 is deep hemostatic packing under a wide elastic pressure wrap for proximal and junctional wounds, and a wide elastic tourniquet or a canine-specific traction windlass for arterial bleeding on the lower limb.

STRUCTURE	WHERE IT IS ON THE DOG	WHAT IT MEANS FOR THE HANDLER
Femoral artery	Inside of the thigh, high, where the leg meets the body; the pulse point (p. 7)	A wound here is junctional: pack and wrap, no tourniquet
Brachial artery	Inside of the upper foreleg, just above the elbow	Same rule: pack and wrap high; elastic tourniquet only below it if bleeding is on the lower leg
Jugular veins	Either side of the neck under the collar line	Direct pressure with a gloved hand and a dressing; never a circumferential wrap around the neck
Chest wall	Ribs 1–13; heart and lungs behind ribs 3–9; the 7th–9th spaces are the landmark for decompression	Shave or clip before a seal; count ribs from the last (13th) forward
Hair coat	Everywhere; double coat on shepherds and Malinois	Hides wounds and blood; defeats seals and tape; traps heat in the summer and holds water in the cold

Baseline vital signs — dog versus handler

PARAMETER	WORKING DOG (RESTING)	ADULT HUMAN	FIELD ALARM (DOG)
Heart rate	60–140 / min (large breeds low end)	60–100 / min	Over 160 sustained, or weak and fast with pale gums
Respiratory rate	10–30 / min; panting is normal after work	12–20 / min	Labored, open-mouth breathing at rest; blue or gray tongue
Rectal temperature	100.5–102.5 °F (38.0–39.2 °C)	97.7–99.5 °F	≥ 104 °F alert; ≥ 105.8 °F heatstroke (p. 9)
Mucous membranes	Pink and moist	Pink and moist	Pale, white, gray, blue, or brick red
Capillary refill	Under 2 seconds	Under 2 seconds	Over 2 seconds = shock until proven otherwise

Field vitals in sixty seconds: gums and refill (lift the lip, press to white, count to pink) · femoral pulse (flat fingers high inside the thigh, 15 s × 4) · breathing (chest rise, 15 s × 4, note effort) · rectal temperature (lubricated, covered, one inch, second handler on the head). Record the dog's resting baseline pre-season (p. 18); a field reading only means something against it.

SECTION 03

Canine MARCH — M: massive hemorrhage



Canine-specific traction windlass seated high on the foreleg — the traction band is what keeps it from walking down the taper. Product photograph.

Arterial bleeding in a dog is found by the pool, not the wound: hair hides the hole. Gloves on, muzzle on (p. 5), then run both hands through the coat on every limb, the neck, the chest and the groin looking for warmth and wet. The sequence below is the handler's whole hemorrhage toolkit: pressure, packing, wrap, and — for the lower limb only — a tourniquet that fits a cone.

The tapered-limb rule. On the thigh, the shoulder, the neck and the groin: pack the wound to the vessel with hemostatic gauze, hold firm direct pressure for a full three minutes, then lock it under a wide elastic pressure wrap. On the lower limb below the elbow or the stifle, where the leg is nearer a cylinder: a wide elastic tourniquet stretched and wrapped high on the segment, or a canine-specific traction windlass if the unit trains with one. A human C-A-T or SOF-T is never first line on a dog.

Three-step extremity protocol

1. **Pressure, then pack.** Gloved hand straight onto the source while the kit comes out. Feed hemostatic gauze into the wound with a finger, onto the vessel, until the cavity is full and gauze mounds above the skin. A second packet if needed; do not stop to look.
2. **Hold three minutes by the clock.** Firm, focused pressure over the packed wound. A dog that fights this is a dog that needs the second handler on restraint (p. 13), not less pressure.
3. **Lock it.** Wide elastic pressure wrap over the packing, stretched to tension, anchored above and below the wound where the limb allows. On a lower-limb arterial bleed that packing cannot control, the elastic tourniquet goes high on that segment, stretched to the printed limit and secured; write the time on the wrap.

Junctional pressure points

Femoral: press the inside of the thigh against the pelvis with the heel of the hand. Brachial: press the inside of the upper foreleg against the humerus. Both buy time while the packing goes in; neither replaces it. Neck wounds get a gloved hand and a dressing, never a circumferential wrap. A tourniquet placed by the handler is not loosened by the handler.

CANINE HEMORRHAGE CONTROL, AS SOLD · prices verified on tactical-medicine.com, 25 Sep 2026



SWAT-T™ elastic tourniquet / pressure wrap
Safeguard Medical · $15.99



TacMed™ K-9 Tourniquet (traction windlass)
Tactical Medical Solutions · $24.64



Celox™ Rapid Ribbon (narrow-wound packing)
Celox · $29.95



Celox™ Rapid Z-fold gauze
Celox · $37.95



READY WRAP™ elastic pressure wrap
6:8 Medical · $12.95

SECTION 04

Canine MARCH — A: airway and the muzzle



Purpose-built K9 muzzle on a Malinois: on before assessment, off the moment breathing or vomiting demands it. Product photograph.

The muzzle goes on before the hands go in. An injured working dog will bite the handler it loves, and a bitten handler is a second casualty with no one left to treat the first. The only exception is the dog in respiratory distress, which must be able to pant and open its mouth: that dog gets a leash-loop muzzle that can be released in one motion (p. 13), or no muzzle and two people on restraint.

Mesh versus basket. A basket muzzle lets the dog pant and drink and is the choice for heat and for transport; a mesh sleeve muzzle closes the mouth and traps heat, so it is for short procedures only and comes off the moment the work is done. Never muzzle a vomiting dog, and never leave a muzzled dog unattended.

Airway decision tree

WHAT YOU SEE	WHAT IT MEANS	WHAT THE HANDLER DOES
Breathing normally, alert	Airway is open	Muzzle on; proceed with M; reassess every few minutes
Noisy breathing, stridor, gurgling	Partial obstruction — blood, vomit, swelling, a foreign body	Muzzle off. Lateral recumbency, neck extended, tongue pulled forward and out to the side; sweep the mouth with a gloved finger only if the dog is unconscious
Open-mouth breathing at rest, blue or gray tongue	Respiratory distress or heat	No muzzle. Basket or leash-loop only if needed for handling; go to Section 05 and Section 08
Unconscious, not breathing	Respiratory arrest	Muzzle off, tongue forward, airway cleared; mouth-to-snout rescue breaths (mouth held closed) and chest compressions if no pulse, if trained; transport immediately
Facial or neck trauma	Airway at risk of swelling shut	No mesh muzzle; keep the head extended; move fast — swelling closes a canine airway quickly

Lateral recumbency and tongue positioning

Dog on its side, head and neck extended in line with the spine, mouth open, tongue drawn forward and laid out over the teeth to the side so it cannot fall back; blood and vomit cleared by turning the head down and sweeping. A panting dog cools through its mouth — anything that closes the mouth for more than a minute raises core temperature.

AIRWAY AND SAFETY ITEMS, AS SOLD · prices verified on tactical-medicine.com, 25 Sep 2026



TacMed™ K-9 Muzzle
Tactical Medical Solutions · 2 oz · $25.02



Nitrile exam gloves, wrapped pair
MED-TAC · $1.00



EMT trauma shears 7.5 in.
MED-TAC · $4.99

SECTION 05

Canine MARCH — R: respiration and chest trauma



Vented seal on a clipped patch of the lateral chest wall, dog in lateral recumbency, second handler on the head. Illustration.

Gunshot and stab wounds to a dog's chest do what they do to a person's: air enters through the wound, the lung on that side collapses, and if air is trapped under pressure the heart and the good lung are squeezed. The dog shows it as fast, shallow breathing, an extended neck, flared lips, and a refusal to lie down. The difference is the coat: a chest seal will not stick to hair.

Clear the coat first. Clip or shave a palm-sized patch around the wound with the shears or a clipper from the kit, wipe the skin dry, and press the vented seal on at the end of an exhalation. If it will not hold, petrolatum gauze under the seal or a loose circumferential chest wrap holds it in place. Check the far side for the exit and seal that too.

Chest wound procedure

1. Muzzle on (basket or leash-loop — the dog needs to pant); second handler on restraint at the head.
2. Find every hole: run gloved hands through the coat on both sides of the chest, the armpits and the back.
3. Clip or shave, wipe dry, vented seal centered over the wound at end-exhalation; petrolatum gauze under it or a loose wrap over it if the coat defeats the adhesive. Seal the exit the same way.
4. Position: injured side down if it eases breathing, or whatever position the dog chooses — a dog that wants to sit or stand to breathe is allowed to.
5. Watch for worsening: breathing faster, gums going gray, the neck stretching out. Lift one edge of the seal to burp trapped air, reseal, and move — this dog needs a veterinarian with a chest tube.

NEEDLE DECOMPRESSION — VETERINARY AUTHORIZATION ONLY

The canine landmark is the 7th–9th intercostal space, counted forward from the last (13th) rib, at the height your unit veterinarian's protocol sets. It is a trained procedure performed under the veterinarian's written authorization with a catheter sized for the dog. A handler without that authorization seals the holes, burps the seal and drives.

CHEST AND WOUND ITEMS, AS SOLD · prices verified on tactical-medicine.com, 25 Sep 2026



HyFin® Vent chest seal twin pack
North American Rescue · $15.99



QuikClot Combat Gauze®
Teleflex · $39.99

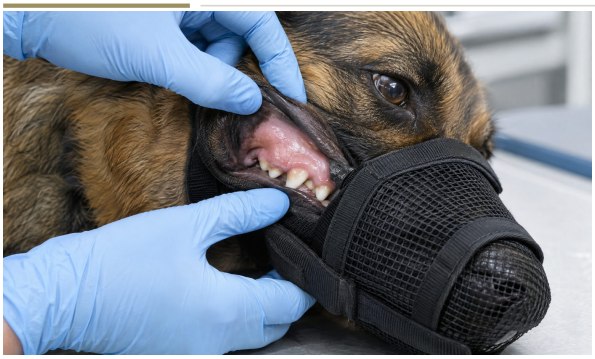


HemoSEAL™ pet wound spray
BC3 Technologies · minor wounds only · $55.00

Blast and blunt chest. A dog caught by overpressure or struck by a vehicle can bruise the lungs without a hole to seal: coughing blood, rapid shallow breathing, gums going gray over minutes to an hour. There is nothing to seal — position for comfort, oxygen if the unit carries it under the standing order, keep the dog warm and still, and drive with the hospital warned.

SECTION 06

Canine MARCH — C: circulation and shock



Reading the gums: lift the lip, look at color, press until it blanches, count the refill. Illustration.

Shock in a dog is read in the mouth and on the inside of the thigh. Lift the lip: pink and moist is normal; pale, white or gray means the dog is losing blood or its circulation is failing; brick red or muddy means heat or sepsis; blue means it is not oxygenating. Press the gum until it blanches and count: color back in under two seconds is normal; longer is shock until proven otherwise.

Femoral pulse. With the dog on its side, slide flat fingers along the inside of the thigh at the top, where the leg meets the body, and press gently against the bone. Count for fifteen seconds and multiply by four. Fast and weak with pale gums is hemorrhagic shock; go back to M — the bleed you controlled has started again or you missed one.

SIGN	NORMAL	COMPENSATED SHOCK	DECOMPENSATED — TRANSPORT NOW
Gum color	Pink, moist	Pale pink	White, gray, blue
Capillary refill	Under 2 s	2–3 s	Over 3 s or absent
Femoral pulse	Strong, 60–140	Fast, still palpable	Weak, thready, or not felt
Mentation	Alert, responds to name	Quiet, slow to respond	Unresponsive; head down; will not lift it
Extremities	Warm pads and ears	Cool pads	Cold pads and ears; body temperature falling

What the handler does for shock

Stop the bleeding again. Reassess every tourniquet, wrap and packed wound; the first thing shock means is that M is not finished.

Keep the dog warm. A bleeding dog loses heat fast, in any weather: insulation under the body (never on cold ground or a metal tailgate), wet coat patted dry, reflective blanket over the trunk, head out. Cold blood does not clot.

Position. Lateral recumbency, head level with the body, nothing tight around the chest or neck.

No fluids by mouth to a dog in shock or with a belly wound; nothing by needle without the veterinarian's authorization.

Drive. Radio the hospital with the MIST-K9 report (p. 16); every minute of hemorrhagic shock is tissue the surgeon cannot get back.

SHOCK AND WARMTH ITEMS, AS SOLD · prices verified on tactical-medicine.com, 25 Sep 2026



Mylar emergency blanket
MED-TECH Resources · $1.50



Slishman pressure wrap
Sam Slishman · $12.00



Elite K9 First Aid Kit
MED-TAC · $54.95

Reassess every five minutes en route — gums, refill, pulse, temperature — and say the numbers on the radio; the receiving team preps blood and the operating room from your trend.

SECTION 07

Canine MARCH — H: head injury, spine and hypothermia



Field splinting of a canine foreleg: padded, splinted as found, the paw left visible to check warmth and color. Product photograph.

The last letter of MARCH is where the handler stops treating and starts protecting. Blast overpressure, a vehicle strike, a fall from a height or a rifle-butt strike to the head produce injuries the handler cannot fix but can make worse: a concussed dog that is allowed to run, a spinal injury that is folded into the back seat, a shocked dog that is left to cool on the ground.

Splints and spines. A fractured lower limb is splinted as found, padded, in the position the dog holds it; do not straighten it. A suspected spinal injury — a dog that cannot stand, drags the hind legs, or has a limp tail after a strike or fall — is moved on a rigid platform or the litter kept taut and flat, log-rolled by two people, never lifted by the collar or the legs.

Head and spine diagnostic checklist

CHECK	NORMAL	ABNORMAL — VETERINARY EMERGENCY
Pupils	Equal, both constrict to light	Unequal; one fixed and dilated; both pinpoint; eyes flicking side to side
Mentation	Alert, tracks the handler, obeys	Dull, circling, head pressing, will not obey a known command, seizure
Gait	Coordinated on all four	Stumbling, knuckling on a paw, cannot rise, hind-end weakness
Ears, nose, mouth	Dry	Blood or clear fluid from the ears or nose after a strike or blast
Tail and hindquarters	Tail carriage normal; withdraws a pinched toe	Limp tail, no toe withdrawal, incontinence — spinal until proven otherwise
Breathing after blast	Regular	Coughing blood, rapid shallow breathing — blast lung; treat as Section 05

The trauma triad in the dog

Bleeding, cooling and acidosis feed each other in a dog as in a person, and a wet coat on a cold tailgate sheds heat fast. Every trauma dog is wrapped: insulation under, blanket over, wet hair patted dry, head out, vehicle heater on in any season. After water work or a long winter track, shivering that stops and a dog that will not respond is hypothermia: warm slowly and centrally — trunk, not legs.

SPLINT, PLATFORM AND WARMTH, AS SOLD · prices verified on tactical-medicine.com, 25 Sep 2026



K-9 Splint (small / medium)
MED-TAC · $12.95 / $14.95



K-9 Litter
North American Rescue · 15.3 oz · $74.95



Mylar emergency blanket
MED-TECH Resources · $1.50

SECTION 08

Exertional heat illness and heatstroke



Field cooling: dog on its side, water to the belly, groin and armpits, a fan on the wet coat, thermometer in hand. Illustration.

A dog sheds heat by panting and through its pads; it cannot sweat. A tracking dog on a hot afternoon, a bite-work session in a vest, or twenty minutes in a vehicle with a failed climate system will take a working dog past the point of recovery before the handler notices anything but panting. Heatstroke is the second leading traumatic killer of police dogs and the most preventable.

Cool first, transport second. The outcome is decided by how high the temperature goes and for how long. Cooling starts where the dog is, with what is in the vehicle: soak the dog to the skin with room-temperature or cool water — belly, groin, armpits, neck and pads — and move air over the wet coat with a fan or the vehicle's air conditioning. Ice water or immersion only per the unit veterinarian's protocol; no alcohol on the pads. Take the rectal temperature every five minutes and **stop active cooling at 103 °F** to avoid overshooting into hypothermia; then drive, with the air conditioning on the dog.

RECTAL TEMPERATURE	STATUS	HANDLER ACTION
100.5–102.5 °F	Normal resting range (up to ~103 °F briefly after hard work)	Water, shade, rest; recheck in 10 minutes
≥ 104 °F	Heat stress — panting hard, thick saliva, bright red gums, slowing	Stop work now. Shade, water to drink, wet the coat, air movement; recheck every 5 minutes
≥ 105.8 °F	Heatstroke — staggering, vomiting or diarrhea, collapse, dull or unresponsive, gums brick red then pale	Emergency. Active cooling immediately as at left; radio the hospital; transport with cooling in progress
Falling through 103 °F	Cooling target reached	Stop active cooling; dry the dog; keep the air conditioning on; the hospital still sees this dog today — organ damage shows up hours later

Prevention rules that actually work

Vehicle: a tested kennel heat alarm with a remote pager, checked at every shift start (p. 18); no dog left in a vehicle without the engine, climate system and alarm running, ever.

Work: a pre-planned heat-index threshold for tracks and bite work; water before, during and after; rest in shade between reps; a baseline rectal temperature taken in training so the handler knows the dog's normal.

Kit: a digital rectal thermometer with lubricant and covers, two gallons of water, a collapsible bowl and a battery fan in the vehicle year-round; a cooling vest only if it is wet and the air is moving.

Recognition: the change is in the gait and the face before it is in the numbers — a dog that stops tracking, drools thick saliva and glazes over is already hot.

SECTION 09

Gastric dilatation-volvulus: the two-hour clock

Gastric dilatation-volvulus — bloat — is the stomach filling with gas and twisting on itself. The twisted stomach cuts off its own blood supply and compresses the great veins in the abdomen; the dog goes into shock while the stomach wall and spleen die. Deep-chested breeds are the working dogs: German Shepherds, Malinois, Dobermans, Weimaraners. It is a surgical emergency, survival falls with every hour between onset and the operating table, and there is nothing in a trauma kit that fixes it. The handler's whole job is recognition and a fast, pre-arranged drive to a hospital that can operate tonight.

Recognition

DISCRIMINATOR	WHAT YOU SEE	WHY IT MATTERS
Non-productive retching	Repeated heaving, white foam, nothing comes up	The twisted stomach cannot empty; the single most specific sign
Abdominal distension	Left flank behind the ribs tight and drum-like, sounds hollow when tapped	Gas trapped under pressure
Restlessness, pacing, praying posture	Cannot settle; front down, rear up; looks at the flank	Visceral pain
Shock signs	Fast weak femoral pulse, pale gums, slow refill, collapse	Venous return is compressed; the clock is already running
Timing	Often 1–3 hours after a large meal, hard exercise or a big drink; can be any time	Feed after work, not before; no big drinks on a full stomach

Timed protocol

1. **Minute 0 — call it.** Retching without vomit plus a tight flank is GDV until a veterinarian says otherwise. Do not wait for it to "pass." Do not offer food or water.
2. **Minute 1 — radio.** The designated emergency hospital (cover) with the words "suspected GDV, deep-chested dog, ETA ___." Confirm they have a surgeon available tonight; if not, the alternate facility. The hospital preps for decompression and surgery while you drive.
3. **Minute 2 — load.** Muzzle only if the dog is not retching. Litter or a two-person lift under the chest and pelvis, never by the belly. Lateral recumbency in the vehicle, nothing tight around the abdomen, air conditioning on, a second person with the dog if available.
4. **En route.** Reassess gums and pulse every five minutes and report them to the hospital. Trocar decompression of the stomach is a veterinary procedure; a handler does not attempt it. Drive with lights if agency policy allows; this is a red patient.
5. **Hand-off.** Onset time, last meal and water, exercise, everything the dog was given, vital-sign trend (p. 19). Then stay available — the surgeon will have questions.

> **THE NUMBER THAT MATTERS**
> **Survival after surgery is high when the dog reaches the table early and falls sharply once hours have passed and the stomach wall is dead. Treat GDV as a two-hour clock from the first retch: one hour to recognize and load, one hour of driving. If the designated hospital is farther than that, the cover block needs a different hospital.**

SECTION 10

Environmental, toxin and narcotic exposure

Detection dogs work with their nose in the product. Fentanyl and its analogs are absorbed through the nasal mucosa and the mouth far more readily than through intact skin, so the exposed dog is the one that sniffed or licked, not the one that walked through a room. The signs are the same as in a person: sudden sedation, slow or absent breathing, pinpoint pupils, collapse. Naloxone works in dogs.

Opioid exposure protocol

1. Handler protection first: gloves; no brushing powder off with bare hands; dog and handler into fresh air.
2. Recognize: sedation out of proportion to work, breathing under 10 per minute, pinpoint pupils, unresponsive to name.
3. **Naloxone per the veterinarian's standing order** — intranasal device, tip in a nostril, plunger pressed fully, or the authorized injectable route at the weight-based dose the order sets; repeat every 2–3 minutes if breathing does not recover.
4. Support breathing (Section 04); mouth-to-snout breaths if respiration stops and you are trained.
5. Decontaminate once stable (matrix below); transport for observation — naloxone can wear off before the opioid does.

Snakebite and envenomation

Most bites are to the face and forelegs. Keep the dog still, carry rather than walk it, collar off if the neck is swelling, and drive to a hospital that stocks antivenom — confirm by radio. No tourniquet, cutting, suction or ice. Note the time; never handle the snake.

Decontamination matrix

EXPOSURE	FIRST ACTION	DECON	TRANSPORT
Opioid powder on coat or muzzle	Naloxone if symptomatic; fresh air	Wet wipe of the muzzle and paws, then lukewarm water and dish soap, rinse, dry; handler gloved and masked	Yes — observation 4+ h
Chemical or fuel on coat	Move off the surface; prevent licking (muzzle)	Lukewarm water and dish soap, ten minutes, rinse to clean water; eyes flushed with saline	If any skin or eye sign
CS / OC irritant	Fresh air, face into the wind	Flush eyes and mouth with water; do not rub; shampoo the coat	If breathing is affected
Rodenticide, antifreeze, drugs ingested	Note the product and time; do not induce vomiting in the field	None	Immediately — bring the packaging

EXPOSURE ITEMS, AS SOLD · prices verified on tactical-medicine.com, 25 Sep 2026



Naloxone nasal spray, twin pack (4 mg)
MED-TECH Resources · standing order · $33.50



Nitrile exam gloves, wrapped pair
MED-TAC · $1.00



HyFin® Vent chest seal twin pack
North American Rescue · $15.99

The handler is a casualty too: a second officer watches the handler for sedation; the handler's own naloxone is in reach; EMS is called.

SECTION 11

Field analgesia and the drugs that kill dogs

A handler watching a partner in pain reaches for the glovebox. The glovebox holds ibuprofen and acetaminophen, and either one can finish what the injury started. Dogs metabolize these drugs differently, they are dosed by weight in a way a tablet does not allow, and their toxic dose is close to what a handler would think is a small amount.

NEVER GIVE A DOG A HUMAN PAIN RELIEVER

Acetaminophen (Tylenol) destroys liver cells and damages red blood cells so they cannot carry oxygen. Ibuprofen (Advil, Motrin) and naproxen (Aleve) cause stomach and intestinal ulceration and acute kidney failure at doses well below one tablet per pound. Aspirin causes bleeding and ulcers and interferes with the veterinarian's drugs. Nothing from the handler's own kit or the cruiser first-aid box goes into the dog by mouth.

DRUG	WHAT IT DOES TO A DOG	FIELD RULE
Acetaminophen	Hepatic necrosis; methemoglobinemia (brown blood, blue gums, collapse); toxic at doses a person would consider one tablet	Never
Ibuprofen, naproxen, other human NSAIDs	Gastric and intestinal ulceration and perforation; acute kidney injury; seizures at high dose	Never
Aspirin	Bleeding, ulceration; interferes with clotting and with veterinary NSAIDs	Never
Human opioid tablets or patches	Unpredictable absorption; respiratory depression; oral transmucosal fentanyl is specifically prohibited in canine guidelines	Never
Benadryl (diphenhydramine)	Used in dogs, but only at a veterinary dose by weight	Only under the standing order, at the written dose
Veterinary NSAIDs (carprofen, meloxicam)	Safe in the dog they were prescribed for, at the prescribed dose	Only if the veterinarian prescribed it for this dog

Veterinarian-authorized prehospital analgesia

The published canine tactical casualty care guidelines list injectable opioids and ketamine with midazolam for moderate and severe pain, dosed by weight, given by trained personnel. Whether any of that is in a unit's kit is the veterinarian's decision, in writing, with controlled-substance accountability that satisfies state law and agency policy. Where it is not, the handler's analgesia is non-pharmacological and it works: hemorrhage controlled, fractures splinted as found, the dog kept warm, quiet, dark and still, a calm voice, and a fast, smooth drive.

What the handler records for the veterinarian

Everything the dog was given and when, including anything a well-meaning bystander gave; the dog's weight; the time of the last meal and water; and any medication the dog is on. Write it on the incident card (p. 19). An accurate list at the door is the difference between treatment and a toxicology work-up.

SECTION 12

Handler safety and bite mitigation



Two-person restraint: one handler controls the head with a leash muzzle against the chest, the other holds the hips and hind legs. Illustration.

Pain turns a stable, obedient working dog into a defensive one, and the bite is aimed at whoever is causing the pain — the handler. A bitten handler with a crushed hand cannot pack a wound, drive or radio. Restraint is not cruelty; it is what allows treatment.

The leash muzzle. Loop the leash once around the dog's muzzle just behind the nose, cross it under the jaw, bring both ends behind the ears and tie a quick-release bow. It goes on in five seconds, comes off in one, and lets the dog breathe through its nose. It is the muzzle for the dog that must be able to pant on release, and the one every handler drills until it is automatic.

Handling rules

RULE	HOW
Muzzle before touch	Purpose-built muzzle if the dog is breathing normally; leash muzzle if you may need it off fast; nothing if the dog is vomiting or in respiratory distress — then two people and a towel over the eyes
Approach from behind the head	Never over the face or the injured part; speak first; low, slow, hands where the dog can feel them before it can see them
Two-person restraint	Person one kneels at the head, forearm under the neck, the head held firmly against their own chest, leash muzzle tied; person two at the hips, one arm over the body pressing the trunk down, the other holding the hind legs. Treatment happens between them
Single-handler restraint	Dog on its side, handler kneeling behind the back, one forearm across the neck holding the down foreleg, the other across the hips holding the down hind leg; the dog cannot rise or turn to bite
Under direct threat	A bleeding dog in the fight is leashed short and muzzled at the first cover; no treatment in the open; the dog is dragged or carried behind cover exactly as a downed partner is
When the dog gets loose	A wounded, unmuzzled dog is a hazard to EMS and the public: the handler, not the medic, recovers it; nobody else approaches until it is muzzled and held

Muzzle-tolerance conditioning

A dog that meets a muzzle for the first time when it is shot will fight it. The purpose-built muzzle goes on in training weekly from the first month — rewarded, short, then longer — until the dog accepts it under stress and from a stranger. The training matrix on p. 17 makes it a monthly line item, and the inspection card on p. 18 confirms it is in the kit.

If the handler is bitten

A working-dog bite is a crush injury with punctures. Control the dog first (leash to the second handler, muzzle on), then treat the hand as any bleeding wound: direct pressure, packing if it will not stop, elastic wrap, elevation. Every bite that breaks the skin is washed with soap and water for about 15 minutes, seen by a physician the same day for antibiotics and a tetanus check, and written on the incident card; the dog's rabies status goes with the handler to the emergency department.

SECTION 13

Extraction, litters and vehicle staging



Two-handler litter carry to the vehicle: dog on its side, strapped, muzzled, head end high and supported. Illustration.

A 70- to 90-pound dog with a leg or chest injury cannot be carried in the arms for more than a few yards, and a dog carried under the belly with a bloat or a spinal injury is a dog being harmed. The canine litter — poleless, with leg cutouts so the dog lies naturally on its side, and enough handles for one to four carriers — lives on the handler or in the cruiser door, not in the trunk.

Single-handler drag versus two-person carry. Alone, the handler drags the loaded litter by the head-end handles, dog's head toward the handler, on the smoothest line to the vehicle. With two, the carry is head-end high, level, the dog strapped, the muzzle on. A suspected spinal injury is log-rolled onto the litter by two people and the litter kept taut.

Rapid extrication sequence

1. Out of the fight like a partner: leash short, dragged or carried to cover; no treatment in the open. Muzzle, restraint, life threats at cover.
2. Litter beside the dog; log-roll onto it, injured side up unless the chest says otherwise; straps over the trunk, not the belly.
3. Carry or drag to the vehicle; onto the rear seat or cargo floor on the litter — never back into the kennel with a chest or spinal injury.
4. One person with the dog if at all possible; the driver radios (p. 16).

Vehicle staging matrix

LOCATION	WHAT LIVES THERE	WHY
Handler's belt or vest (Tier 1)	Elastic tourniquet, hemostatic ribbon or gauze, elastic wrap, muzzle, gloves, shears, marker	The first three minutes happen away from the vehicle
Driver's door pocket or console	Purpose-built muzzle; leash; the dual-species IFAK (Tier 2)	Reachable from the driver's seat without opening the back
Rear seat or cargo floor, driver's side	K9 litter (folded), thermometer kit, water and bowl, battery fan, blankets, splint	Where the dog is loaded; where the cooling and warming gear is needed
Kennel	The healthy working dog, on a tested heat alarm — nothing else	An injured dog on a litter does not go back in the box
Trunk / rear cache	Resupply consumables in an insulated case; nothing the dog needs in minute one	Trunk heat destroys seals, hemostatic packaging and gloves

EXTRACTION AND STAGING ITEMS, AS SOLD · prices verified on tactical-medicine.com, 25 Sep 2026



K-9 Litter (10 handles, leg cutouts)
North American Rescue · $74.95



K-9 Handler Trauma Kit (drop-leg / MOLLE)
Tactical Medical Solutions · $188.97



K-9 Handler IFAK (dual species)
North American Rescue · $124.00 basic; $155.00 advanced

SECTION 14

The universal three-tier K9 hardware ladder

Three tiers, colour-separated so a handler under stress never packs a dog's wound from a human kit or reaches for the dog's kit for a partner: **blue or black** modules for the human casualty, **red or gold** for the canine. Every device from the manufacturer or an authorized distributor with lot traceability.

Tier 1 · Handler on-body carry

QTY	ITEM	SPECIFICATION
1	**Elastic tourniquet / pressure wrap**	Wide stretch-wrap-tuck device (SWAT-T class); optional canine traction windlass if trained
1	**Hemostatic gauze**	Chitosan or kaolin ribbon or Z-fold, vacuum-sealed
1	**Elastic compression wrap**	4 in., self-anchoring
1	**Muzzle**	Purpose-built mesh or basket sized to the dog; leash always on the handler
1 pr / 1 / 1	**Gloves, shears, marker**	Nitrile (ASTM D6978); 7.25 in. shears; black permanent marker
1	**Pouch**	Compact MOLLE or belt pouch, red or gold tab, tear-open; separate from the handler's own IFAK

TIER 1 CONFIGURATIONS, AS SOLD · prices verified on tactical-medicine.com, 25 Sep 2026



Elite K9 First Aid Kit — Advanced
MED-TAC · K-9 TQ, vented seal, gauze · $99.99



K-9 Handler Trauma Kit
Tactical Medical Solutions · dog + handler · $188.97



SWAT-T™ elastic tourniquet
Safeguard Medical · $15.99



TacMed™ K-9 Muzzle
Tactical Medical Solutions · $25.02

Tier 2 · Cruiser-staged dual-species system · Tier 3 · Multi-dog unit cache

TIER	CONTENTS	STAGED
Tier 2	Dual-species IFAK (human module blue/black, canine red/gold): second elastic tourniquet, hemostatic gauze ×2, vented seals ×2, petrolatum gauze, elastic wraps ×2, canine splint, rectal thermometer with lubricant and covers, K9 litter, blankets ×2, 2 gal water, bowl, battery fan, naloxone under standing order, shears	Door pocket / console and rear seat; litter on the handler or in the door
Tier 3	Unit aid bag for two or more dogs: Tier 2 ×3, a canine-specific field kit, spare muzzles and litter, cooling supplies, wound-flush syringes and saline, bandage material, splints, a rigid extrication board, thermometers ×2, incident cards; veterinary items only as the unit veterinarian stocks and authorizes	Kennel, training facility or unit vehicle; inventory card outside; audited quarterly

TIER 2 AND 3 CONFIGURATIONS, AS SOLD · prices verified on tactical-medicine.com, 25 Sep 2026



K-9 RUF Medical Kit
North American Rescue · from $399.00



K-9 Tactical Field Kit
North American Rescue · from $344.99



MOJO Working Dog First Aid Kit
Safeguard Medical · $749.99

SECTION 15

Emergency veterinary dispatch and handoff

Emergency veterinary hospitals do not have a 911 dispatcher, a trauma bay on standby or a hot-load protocol. What they respond to is a radio or phone call that tells them a working dog is coming, what is wrong, and when. Fill this card before the season, laminate it, and keep it with the cover block in the cruiser.

Pre-arrival transmission (read top to bottom)

"This is _____ **K9 handler with** _____ **,**

"inbound with working dog _____ **, a** _____ **,**

"ETA _____ **minutes to** _____ **."**

"Nature of emergency:"

☐ Gunshot / penetrating ☐ Heatstroke ☐ Suspected GDV ☐ Vehicle strike / fall ☐ Toxin / opioid ☐ Other

"MIST-K9 report:"

	SAY	YOUR WORDS
M	Mechanism — what happened, when	
I	Injuries — where, what you found	
S	Signs — gums, refill, pulse, breathing, temperature, mentation	
T	Treatment — tourniquet/wrap time, packing, seals, cooling start and temperatures, naloxone, anything given	

"Requests:" surgeon available tonight · meet at the door with a gurney · antivenom in stock · blood products available

HOSPITAL PHONE (DIRECT TO THE TREATMENT FLOOR)	ALTERNATE HOSPITAL AND PHONE	ROUTE / DRIVE TIME

BEFORE YOU HANG UP

Confirm they heard the ETA and the emergency. Ask for a name. Give the hospital your callback number and keep the line open on speaker if they ask. Update gums, pulse and temperature every five minutes en route — the receiving team is deciding what to prep from your numbers.

Route pre-coordination (before the season)

Drive the route to the designated hospital and the alternate in daylight and at night; time them; confirm which has a surgeon on call overnight, which stocks antivenom and blood, and where the after-hours entrance is. Meet the staff. A hospital that has seen the handler and the dog before the emergency treats them faster during it.

FACILITY	NAME AND PHONE	SURGEON 24/7?	ANTIVENOM?	BLOOD?	DRIVE (DAY / NIGHT)
Designated 24/7 hospital					
Alternate					
Unit veterinarian					

SECTION 16

Training and currency standard

Hands-on currency is the difference between a handler who knows the doctrine and one who can do it on a fighting, bleeding, 80-pound dog in the dark. The matrix below is the minimum; the unit veterinarian validates it annually and signs the roster.

CADENCE	SKILL	STANDARD	RECORDED BY
Weekly	Muzzle-tolerance conditioning; leash-muzzle drill; body check (pads, coat, gait)	Muzzle on in under 10 s, dog accepting; leash muzzle under 5 s	Handler log
Monthly	Hands-on drill on the training dog or a canine mannequin: packing and wrap, elastic tourniquet on the lower limb, chest seal on a clipped patch, gums / refill / femoral pulse, litter load and carry	Packing and wrap under 3 min; tourniquet under 60 s; litter loaded under 90 s	Supervisor
Quarterly	Tourniquet and wrap drill timed and observed; heat scenario with the thermometer and cooling kit; vehicle staging inspection; heat-alarm function test	Cooling started under 2 min; alarm pager verified	Supervisor
Annually	Veterinary trauma validation: the unit veterinarian reviews the kit, the standing orders (naloxone, analgesia, decompression where authorized), runs the scenarios and signs the roster; GDV and toxin table-top	Pass / fail by the veterinarian	Veterinarian and unit commander
Pre-season	Baseline vitals for every dog recorded on the cover block; hospital routes driven; dispatch card updated	Complete before the first hot deployment	Unit commander

Four scenario scripts

1. **Bite-work laceration, arterial.** Deep laceration to the foreleg during a decoy exercise, spurting. Muzzle, pack, three minutes, wrap; elastic tourniquet only if packing fails; MIST-K9 call; litter to the vehicle. Time to control under 3 min.
2. **Track in the heat.** Dog stops tracking, drools, stumbles; rectal 106.4 °F. Cooling started at the vehicle in under 2 min; temperature logged every 5 min; cooling stopped at 103 °F; hospital called with the trend.
3. **Building search, gunshot to the chest.** Dog drags out to cover; clip, seal, exit found and sealed; breathing watched; dispatch call names the surgeon needed. Time from cover to sealed under 4 min.
4. **Narcotics warrant, exposure.** Dog sedated and slow-breathing after a sniff. Naloxone intranasal under the standing order, breathing supported, repeat at 3 min, decon, transport for observation.

< 10 s
muzzle on, dog accepting — the skill everything else depends on

< 3 min
pack, hold, wrap — arterial limb wound controlled

< 2 min
active cooling started from recognition of heat collapse

< 90 s
dog loaded on the litter and moving to the vehicle

SECTION 17

Pre-deployment 9-point inspection card

One handler, two minutes, before every shift. Print a stack; file the completed cards with the unit training record — they are the evidence that the dog and the kit were fit for duty on the day.

DATE	HANDLER	CANINE	UNIT #	SHIFT

RESTING HEART RATE	RESPIRATORY RATE	RECTAL TEMPERATURE	WEIGHT	AMBIENT / HEAT INDEX TODAY

Physical examination (mark each; any abnormal finding is written below and the supervisor is told before deployment)

- ☐ **1 · Pads and webbing** — no cuts, cracks, burns, embedded material or swelling; nails intact and not overgrown
- ☐ **2 · Claws and dewclaws** — no splits or bleeding; dewclaw not torn
- ☐ **3 · Ears** — clean, no odor, no head shaking, no discharge; hematoma of the flap absent
- ☐ **4 · Eyes** — clear, equal pupils, no discharge, no squinting; third eyelid not showing
- ☐ **5 · Coat and skin** — hands run through the whole coat: no wounds, hot spots, ticks, swellings or matting; vest fits and is dry
- ☐ **6 · Gait** — walks and trots sound on all four; no favoring, stiffness or reluctance to jump
- ☐ **7 · Hydration and gums** — gums pink and moist, refill under 2 s; skin tents and falls quickly; ate and drank normally; urination and stool normal
- ☐ **8 · Trauma kit seals and contents** — Tier 1 pouch on the body, seal intact; Tier 2 in the vehicle, seal intact; muzzle, thermometer, water (2 gal), fan present; naloxone within date
- ☐ **9 · Litter, kennel and heat alarm** — K9 litter folded and staged; kennel clean; heat alarm and pager tested and functioning; climate system running

Kit and equipment log

ITEM	SEAL # / STATUS	EARLIEST EXPIRY INSIDE	ITEM	SEAL # / STATUS	EARLIEST EXPIRY INSIDE
Tier 1 pouch			**Naloxone**		
Tier 2 vehicle kit			**Thermometer battery**		
Hemostatic gauze			**Heat alarm test**		

ABNORMAL FINDINGS · ACTION TAKEN · SUPERVISOR NOTIFIED (TIME)

HANDLER SIGNATURE	FIT FOR DUTY? (YES / RESTRICTED / NO)	SUPERVISOR INITIALS

SECTION 18

Canine trauma incident report — Form MTC-K9-INC

Completed by the handler before the end of shift for every injury, heat event, exposure or GDV, countersigned by the supervisor and filed with the veterinary record. It is what the veterinarian, the agency and the insurer will ask for.

Incident

DATE	TIME OF INJURY / ONSET	LOCATION	CALL / CASE #	CANINE

MECHANISM (GUNSHOT · LACERATION · VEHICLE · FALL · HEAT · GDV · TOXIN · BITE · OTHER)	HANDLER / WITNESS

MARCH interventions delivered

INTERVENTION	SITE / DETAIL	TIME	BY
M — packing, wrap, tourniquet			
A — muzzle, positioning, airway cleared			
R — chest seal(s), decompression (if authorized)			
C — shock measures, warming			
H — splint, spinal platform, blankets			
Cooling — method, start temp, stop temp			

Vitals timeline

TIME	GUMS	REFILL (s)	PULSE / MIN	RESP / MIN	TEMP °F	MENTATION

Medication log (anything given by anyone, including naloxone)

DRUG	DOSE / ROUTE	TIME	GIVEN BY	AUTHORIZED BY

Receiving veterinarian handoff

HOSPITAL	RECEIVING VETERINARIAN (NAME)	TIME OF HANDOFF	LAST MEAL / WATER

HANDLER SIGNATURE	SUPERVISOR SIGNATURE	RECEIVING VETERINARIAN SIGNATURE

ONE HANDLER. TWO LIVES.
THE DOG CANNOT CALL FOR HELP.

CLINICAL AUTHORITY

Marco R. Torres, MD, NRP — physician and medical educator, U.S. Navy veteran, and founder of MED-TAC International and ALKEONHealth.com. Fifteen years in tactical medicine as a flight medic, as a paramedic, and in high-threat protection operations; seven years teaching EMS; dozens of seminars and courses in tactical and emergency medicine in the United States and abroad. Canine doctrine in this guide follows the published canine tactical casualty care guidelines and the veterinary prehospital-care consensus, adapted for the handler without veterinary training; where a unit veterinarian directs otherwise, the veterinarian's protocol governs.

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tactical-medicine.com/pages/k9-unit-trauma-care-solutions

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