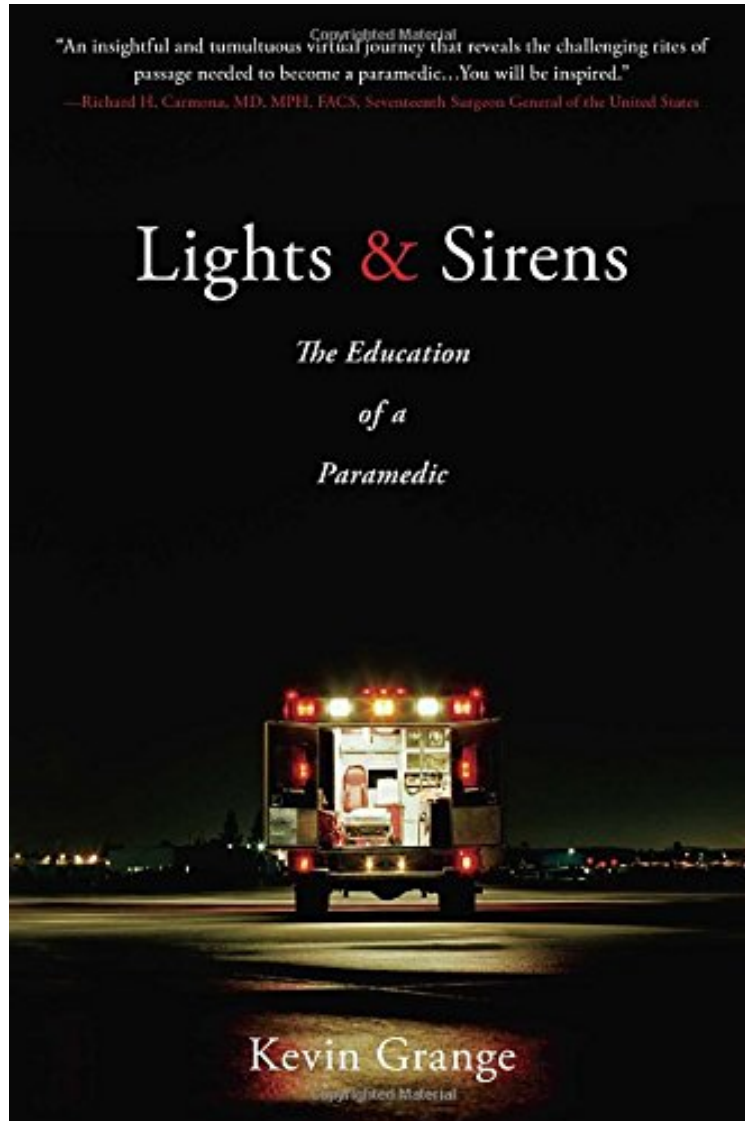


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## Lights and Sirens: The Education of a Paramedic

*Kevin Grange*

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#115015 in Books Kevin Grange 2015-06-02 2015-06-02 Original language: English PDF # 1 8.30 x .80 x 5.501, 1.00 #File Name: 042527523X336 pages Lights and Sirens The Education of a Paramedic | File size: 19.Mb

**Kevin Grange : Lights and Sirens: The Education of a Paramedic** before purchasing it in order to gage whether or not it would be worth my time, and all praised Lights and Sirens: The Education of a Paramedic:

2 of 2 people found the following review helpful. You'll read cover to cover, and then repeat! By Billy The type of book that you can't put down, and then you'll want to read again! I'm not someone who actually enjoys reading for pleasure. I read about this book in JEMS or EMSWorld and thought, why not. I was excited to get it in the mail and started reading it on a flight. I quickly finished half of the book on the flight and almost didn't want to get off because I was so

engrossed in the book! I'm a Paramedic Program Director so I can directly relate to this book. It reminds me of when I was going through paramedic school. It's a great book for students as well as educators. I was contemplating having my students read the book for an assignment, but I don't know if they'd appreciate it as much. It might be better afterwards. I haven't quite decided yet. I have read the book cover to cover and will reread it again. It's definitely one to discover. Enjoy!

1 of 1 people found the following review helpful. A GOOD READ FOR ANYONE IN THE EMS FIELD  
By Brian  
As a recent EMT graduate, I am enjoying this book a lot. Although I am too old to think about going on to paramedic school, it is fun to "travel" with the author as he progresses through the paramedic program.

3 of 3 people found the following review helpful. Inspirational and Motivating  
By eldodger  
Having just earned my state certification as an EMT, Kevin's story is insightful and motivational. His candid description of all aspects of his experience was a truly good read. I look forward to the day when I am ready to take on the challenge of paramedic school and serving my community and country. Thank you Kevin for sharing your story.

A true account of going through UCLA's famed Daniel Freeman Paramedic Program and practicing emergency medicine on the streets of Los Angeles. Nine months of tying tourniquets and pushing new medications, of IVs, chest compressions, and defibrillator shocks that was Kevin Grange's initiation into emergency medicine when, at age thirty-six, he enrolled in the Harvard of paramedic schools: UCLA's Daniel Freeman Paramedic Program, long considered one of the best and most intense paramedic training programs in the world. Few jobs can match the stress, trauma, and drama that a paramedic calls a typical day at the office, and few educational settings can match the pressure and competitiveness of paramedic school. Blending months of classroom instruction with ER rotations and a grueling field internship with the Los Angeles Fire Department, UCLA's paramedic program is like a mix of boot camp and med school. It would turn out to be the hardest thing Grange had ever done but also the most transformational and inspiring. An in-depth look at the trials and tragedies that paramedic students experience daily, *Lights and Sirens* is ultimately about the best part of humanity: people working together to help save a human life.

An insightful and tumultuous virtual journey that reveals the challenging rites of passage needed to become a paramedic. You will be inspired.

Richard H. Carmona, M.D., M.P.H., FACS, 17th Surgeon General of the United States  
An authentic, compelling narrative  
Grange is an excellent writer.

Peter Canning, author of *Paramedic: On the Front Lines of Medicine*  
As fast-paced and thrilling as a ride along in a speeding ambulance.

Judy Melinek, M.D., co-author of *Working Stiff: Two Years, 262 Bodies and the Making of a Medical Examiner*  
Powerful  
A raw, yet intimate view of the making of a paramedic.

Paul A. Ruggieri, M.D., author of *Confessions of a Surgeon* and *The Cost of Cutting*  
About the Author  
Kevin Grange graduated from UCLA's Paramedic Education Program in 2011 and is an award-winning writer with the Society of American Travel Writers. His first book, *Beneath Blossom Rain*, recounts a twenty-four-day trek in the Himalayas, and he currently works as a paramedic with the National Park Service.

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Introduction  
The fate of the wounded rests with the one who applies the first dressing.

Nicholas Senn, MD  
The 911 call came in on a Friday night in the summer of 2011 from a gritty part of Los Angeles known on the street as Ghost Town. As usual, it was a trauma. At the fire station on the corner of 124 East I Street and Avalon Boulevard, the lights flickered briefly, followed by the alarm tones, and then moments later, dispatch broadcast over the loudspeaker: Engine and rescue. A stabbing.

In the upstairs bunkroom where he'd been resting, firefighter/paramedic Tim Hill leapt from his bed, sprinted to the fire pole, and began sliding down. The call also roused two other firefighters, who slid down immediately after Tim, and three more from the TV room downstairs, who hustled into the garage bay. And with that, Station 38 of the Los Angeles Fire Department woke to life: the lights on the apparatus floor blinked on, the station doors opened, and six firefighters could be seen stepping into rubber insulated boots, pulling up yellow turnout pants, and throwing on brush coats. The men moved with speed and precision, the result of years on the job. And then there was me, the paramedic intern. I'd just finished showering and was standing half-dressed in the upstairs locker room when the tones first went off. Before I even heard the nature of the call, I threw on a shirt, grabbed my watch, and tore down the hall. Forbidden to use the fire pole as an intern, I instead hurtled down the stairs toward the garage bay. A fall down those stairs would break my bones and knock me unconscious but far worse would be watching the ambulance leave without me. Just the week before, a classmate of mine who'd been interning here on another shift had missed a call—a double shooting at a recreation center—and I hadn't seen him since. No one had said anything but I didn't need to ask. Miss a call during your field internship of paramedic school and you're gone.

In the garage bay, the fire engine pulled out and I picked up the pace, leaping down the last five steps and sprinting across the apparatus floor to the ambulance. Tim hopped into the driver's seat of the ambulance and hit the ignition. Firefighter/paramedic Eddie Higgins slid into the passenger seat next to Tim, radioed to dispatch that we were en route, and grabbed the map book. Tim shifted into drive, easing his foot off the brake. I grabbed my gear, jumped into the back of the slow-rolling ambulance, and hollered, *Im here!* Settling into the captain's seat, I yanked my turnouts on over my shorts and buckled my seat belt. Tim pulled out onto the street and activated the emergency lights—red and white LEDs flashing in 360 degrees. Less than three minutes had elapsed since the tones sounded and an anxious sweat had already replaced the dampness from my shower. The station doors thundered closed behind us and

Rescue Ambulance 38 pulled out into the dark streets of L.A. Tim turned left on I Street, made a right on Avalon Boulevard, and floored it. Eddie activated the siren, its loud wail rising and falling like a sea swell. In the back, I threw on my safety glasses and EMS exam gloves and scanned the dispatch information on the small computer screen to my right: 18 y/o male. Life status questionable. Location of assailant unknown. I struggled to slow my breath and recalled the first steps of treating a pulseless stabbing victim in the field: ensure scene safety; start CPR; plug the holes; and, if a heartbeat returned, apply diesel therapy, aka haul ass to the hospital. As the ambulance raced toward the intersection of Avalon and the Pacific Coast Highway a stretch home to liquor stores, weekly motels, and junkyards Tim blasted the air horn and Eddie cycled the siren, switching its wail to a high-pitched yelp. Some cars pulled right. Some turned left. Some slammed on their brakes and others had absolutely no frickin idea there was an ambulance driving Code 3 behind them. Clear right! yelled Eddie, scanning the intersection and pointing to a pickup truck to pull over. Tim weaved through the mess, turned right on the PCH, and hit the gas. In most places in America, summer means family vacations, lemonade stands, and swimming lessons at the local pool. But not in Ghost Town. Here, summer means the arrival of shooting season, when tempers rise with the temperature. Gangbangers stay out later. Drink more liquor. Sell more guns, deal more drugs, and create a drastic spike in emergencies between July and September. Tonights assailant could be someone from the Ghost Town Bloods, Harbor City Crips, or Westside Wilmas. Or it might be someone from the Eastside Wilmas, Ghost Town Locos, or Harbor City Rifas. For years theyd been fighting to control Ghost Towns gun and narcotic trade, occasionally catching kids in their crossfire. Then again, tonights assailant could also turn out to just be some girl on meth who caught her guy cheating and confronted him in the kitchen. Tim took a left on a dark residential street and Eddie cut the siren, leaving only our emergency lights splashing red across the rows of single-story homes with barred windows and security doors. At the far end of the street, I saw Engine 38 parked beside a half dozen cop cars, illuminated by the twitchy spotlight of a police helicopter scanning the area. I said a quick prayer for safety. Slid over to the bench seat near the back door and checked my gear. Tim navigated the ambulance past the police cars and parked in front of the engine. The door locks popped open and I jumped out to a sudden assault of soundcops talking, radios squawking, a police helicopter, aka ghetto bird, buzzing overhead, and my captain, Chase Turner, hurrying over with the scene size-up. Sounds like we have two patients and were going to the second floor of that apartment building, he said, pointing. PD has cleared us to enter. The second floor, I thought, cursing my luck. Assault victims never collapsed in well-lit living roomsthey were always in the back bedroom of some upstairs unit with a barking pit bull and no electricity, lying in a red puddle of themselves. Lets get moving, I said, pulling out the gurney. Eddie hustled over. Tims got the gurney. Get your gear and hurry up! I grabbed the cardiac monitor and first-in bag, which had all the equipment Id need to save someones life... or determine death. Captain Turner and Eddie led us down a cracked sidewalk that snaked through an overgrown courtyard littered with broken toys and rusted barbecues. Relics of an innocent age. Captain Turner lit the way with a flashlight, and the rest of the firefighters from the engine fell in line behind us. Eddie hollered to me above the roar of helicopter rotors. Got your ballistics vest on? I thought it was a stabbing, I said. We dont know what were walking into, he barked. Havent you learned by now the only thing dispatch is good for is the address? I told Eddie Id be fine. PDs cleared us to enter. Eddie shook his head and pressed on. Do you feel safe? he asked. Is it even possible to feel safe in Ghost Town after dark? I thought. Of course not. But I nodded yes. By the twenty-first shift in my paramedic field internship, not failing took precedence over almost all else. We arrived at a narrow staircase leading to the second floor and started up. There was the tap-tap sound of tactical boots on metal stairs. A feeling of being watched. Eyes peered out from between window blinds. An eerie calm. Stillness before the storm. You got this, I told myself. Walk in there and get it done. Id spent the previous eight grueling months of paramedic school preparing for this moment. I was ready. Yet I also knew I was about to walk into one of the most stressful situations of my life. On a critical trauma call, you have ten minutes to get on and off scene. The goal is to arrive, treat any immediate life threats, then get patients loaded up and en route to the hospital so they can be under the surgeons knife within the golden hour. And already the clock was ticking. Already we were behind the eight ball and struggling to catch up. We reached the top of the stairs and headed for an apartment at the end of a dark hallway. The carpet was stained and smelled of puke and piss. I walked in time with Captain Turner and Eddie. Together, they had more than forty years of experience working for the Los Angeles Fire Department. Ballistics vest or no vest Id follow those guys into anything. But, as we arrived at apartment 2D, both stepped aside. After you, said Captain Turner, motioning me ahead. Eddie took the cardiac monitor from me. Run your call. Were right behind you. I shuffled past them, knocked twice, and yelled Paramedics! The door opened and then it came chaos. A stereo blasting, the propulsive, flashing images of a fifty-inch TV, and a swarm of teenagers shouting: Help them! Do something! Hurry! In I went, into the living room, where one teenage boy was reclined on the couch, his face wrinkled in pain, his right hand pressed against his stomach, his legs limp like a puppet with cut strings. I set down my equipment and yelled to Eddie, Lets clear the room. Turn off the TV. And get some lights on! Done! Eddie yelled back. You have a patient in the kitchen, too. Another boy, about the same age, was half standing in the kitchen. I couldnt see his face. His legs were wobbly and his upper body was slumped over the counter for support. There was blood on the back of his shirt between his shoulder blades. I directed one of the firefighters to assess him. Let me know what you got. I set the first-in bag down next to my patient. I knelt down and Tim crouched behind me. Hed brought the gurney

to the bottom of the apartment stairs, then hurried up after us. As my two preceptors, Tim and Eddie's job was to watch me run the call. Grade my every move. Analyze each word. And jump in the moment I got off track. What's your plan? Tim asked, leaning in. START triage, I said, grabbing my stethoscope. START, which stands for simple triage and rapid treatment is a way of quickly and effectively determining the severity of patients' injuries in a multiple casualty incident, or anytime the number of patients might exceed the medical resources on scene. When you're responsible for triage and your motors revved, START teaches, remember RPM. Respirations. Perfusion. Mental status. Is the patient breathing more than thirty times per minute? Is perfusion, or blood flow, compromised as evidenced by no pulse at the wrist? Does the patient's mental status allow him or her to follow simple commands? If there is a deficit in any of these, the patient is critical—a red tag—who needs immediate lifesaving interventions and transport. Good, said Tim. Get it done! By now, Captain Turner and the guys on the engine had cleared the room and the lights were on. The apartment was full of empty beer cans, playing cards, and ashtrays. The gray carpet was sprinkled with blood. I knelt down and introduced myself to the boy on the couch. What's your name? I asked. Javier, he said, wincing in pain and offering me his hand. While I check your pulse, can you tell me what year it is? Two thousand eleven. I relayed my findings to Tim. His airways clear, but his breathing is shallow and rapid. I asked a firefighter to my left to put Javier on oxygen via a non-rebreather mask at 15 liters per minute and continued my assessment. I checked Javier's radial pulse on his wrist—strong and rapid. His skin was pink, warm, and sweaty. Was his heart rate elevated from the pain? Or was it trying to compensate for internal blood loss? Javier lifted his shirt. He stabbed me, man. He stabbed me! I saw a single puncture wound with a slab of fatty tissue protruding on the lower right quadrant, near the appendix, small intestine, and ascending colon. I was relieved to see the bleeding was controlled but, still, it didn't look good. Were you stabbed anywhere else? No, man, Javier uttered. We were just havin' a party and he got all crazy. What do you want to do? said Tim, interjecting. You have two patients. Speed it up. Make decisions. I told Tim there was no deficit to RPM, but I was calling Javier a red tag. I'm worried about internal injuries. He's got a rapid pulse so I'm afraid he's compensating and could deteriorate. Or he might just be in pain, replied Tim. But better to overtriage. How long was the knife? he asked the patient. Javier motioned with his hands about the size of a Buck knife. But I don't think it went all the way in. I turned to one of the firefighters and asked him to get me a set of vital signs. Suddenly Eddie yelled from across the room: I have a critical patient here. I need a set of ears! I grabbed my stethoscope and hurried over. Eddie and Bryan, a firefighter off the engine, were kneeling next to the other boy, who now sat on a kitchen chair. His skin was pale, cool, and moist. Eddie had cut off his shirt and placed him on oxygen. Two stab wounds decorated his back: one below his right shoulder blade and a second wound a few inches below that, where Bryan was now applying a gauze dressing. I handed Eddie my stethoscope and he quickly inserted the earbuds and placed the bell of the stethoscope on the boy's chest to assess breathing. The boy breathed in and out a few times, as if gathering up energy to speak. My... name... is... Oscar... he whispered, speaking in short, clipped, one-word bursts. Forget perfusion and mental status, I thought, Eddie's right, this guy's critical! I've got diminished lung sounds on the right, Eddie said, yanking off the stethoscope. Could be a pneumothorax. Let's call for a second ambulance and get the stair chair, I announced. Already done! replied Eddie. This guy's mine. I called for medical aid the moment we walked in the door, he told me. Just then, another firefighter appeared with the stair chair—a collapsible aluminum seat that allows EMS to move patients down stairs without lifting them. Bryan and I carried Oscar to the chair, fastened two seat belts across his chest, and wheeled him to the door. Down below, two paramedics from Station 85 in nearby Harbor City appeared with their gurney. Bryan went out into the hallway to assist with the foot section of the chair. I took the handlebars near Oscar's head and tilted the stair chair back to lift the front wheels and clear the doorway. I'll handle that, Eddie said to me, hustling over. Get back to your patient. As he said this, the scene screeched to a halt. Had I made a mistake? I shook it off and raced over to Javier, whose condition was improving. His skin color was better with the oxygen, and the vital signs the firefighter relayed to me were within normal limits. The plan: move him to the stair chair, get him into the back of the ambulance, and do all other treatments en route. Tim agreed. Which hospital? A penetrating injury to the torso is trauma center criteria, I said, doing a rapid physical exam of Javier to make sure I hadn't missed anything. Our closest is Harbor-UCLA. Good. When a firefighter returned with the stair chair, we moved Javier down the stairs and onto the gurney. Up ahead, Rescue Ambulance 85 activated its emergency lights and pulled out with Oscar in the back. Eddie sat in the driver's seat of our ambulance, Rescue 38, with the engine on. Tim and I loaded Javier in the back and closed the doors. Harbor-UCLA. Code 3, I announced. Eddie nodded. Hit the lights. Shifted into drive and off we raced. We had a short ETA to the hospital so I had to work fast. I switched Javier's oxygen line from the tank on the stretcher to the one on the ambulance; started an IV; disposed of the needle in the sharps container; hung an IV bag of normal saline; and placed a pulse oximeter on his finger to measure the amount of oxygen in his blood. It was hard keeping my balance as the ambulance slammed over potholes and veered around impossible corners—gotta love gurney surfing at seventy mph. Next, I gathered information about Javier's medical history, allergies, and medications; called the ER with my radio report; obtained another set of vitals; listened to lung sounds again; and reassessed his injury as we pulled into the ambulance bay at the hospital. The final push now: I quickly switched his oxygen back to the gurney, tucked in the blood pressure and pulse oximetry cables so they didn't get caught in the gurney wheels, and threw my trash in the tiny receptacle next to the bench seat. Eddie opened the back doors and a rush of warm night air filled the

patient compartment. Still okay, Javier? I asked as we pulled him out. Thumbs-up and a nod. Harbor-UCLA Medical Center is a 553-bed, acute care facility on the corner of West Carson Street and South Vermont in Torrance. It is the only Level 1 trauma center in the South Bay and Greater Long Beach area and its patient population is as diverse and anxious and impatient as the lunchtime crowd at the Department of Motor Vehicles... give or take a stabbing or a gunshot wound or two. We wheeled Javier through the ambulance bay, teeming with units arriving and departing, and then through the hospital doors, where a heavyset security guard rose from her seat and said to me, Not so fast, young man. I gotta scan him for weapons first. The security guard passed the wand over the contours of Javiers body before clearing us to enter. Follow the red line of paint on the floor to the ER. Tim and I pushed the gurney, following Eddie down long, mazelike hallways. Moments later, we entered through two large white doors and into the bright, busy ER. A triage nurse directed us to an open bed where a trauma team of doctors and nurses waited. Tell me when to start talking, I announced loudly, as Tim and I transferred Javier to the bed using the sheet below him. Go! said the doctor. We have an eighteen-year-old male, chief complaint right lower quadrant pain, secondary to being stabbed, I began. Patient states the knife was approximately four inches long but he doesnt think it went in all the way. Upon our arrival, patient was seated on a couch in moderate distress... And so it went. The moment I finished, nurses and ER technicians rushed in to remove Javiers clothes, patch him up on the cardiac monitor, obtain vitals and lab samples, and start another IV. The doctor thanked us. Well take it from here. We stepped back and a curtain whisked closed in front of us. The call was over. Sort of. During field internship, the call still had to be documented on paramedic school paperwork, discussed, analyzed, and assessed with my preceptors. These discussions had the power to fill me with sheer exuberance or deep depression. Over my first twenty shifts, I realized Tim and Eddies assessment of my performance on a call could roughly be determined by where I found them immediately after a run. Were they chatting amiably with other EMTs and paramedics in the ambulance bay? A good sign. Were they sitting in the front cab, texting their wives a quick good night? Even better. And if they were using their phones to look up the nearest frozen yogurt shop to stop at on the way home, Id totally rocked it. That night, Tim and Eddie waited for me behind the ambulance with their arms folded across their chests. It was as if they were trying to get as far as possible from the radio in the front cab, lest it accidentally record the reprimand that was to occur. Howd you think the call went? Tim asked as I arrived. First I listed the good points: Id created a workable scene for myself, assessed and treated Javier correctly even nailing the IV on an especially bouncy section of road Id chosen the right hospital, and I gave solid reports to both the nurse over the radio and to the doctors at the hospital. Eddie cut me off. But you missed the critical patient on scene! I thought if I delegated assessing the second patient to a firefighter, we could work faster, I replied. Eddie said that, as lead paramedic on the call, I must take responsibility for both patients initially. You shouldve done a quick RPM check on both patients, stayed with the one that was more critical, and then delegated the other patient to us. I asked Eddie when hed thought to call for a second ambulance and get the stair chair. The moment I walked in the door, he replied, noting the importance of taking visual vital signs. I saw that kids bad skin signs and work of breathing from across the room and called immediately. Eddie stormed off, his face red with anger. He always got mad when a call wasnt run perfectly, but I appreciated the standards he held me to, and that he maintained himself. Tim and I finished cleaning the gurney, applied a fresh set of sheets, and loaded it back into the ambulance. Keep your head up, he said. Youre putting the pieces together, moving faster and making solid treatment decisions. I thanked Tim for his encouragement and Eddie, too, when I hopped back into the rig. We cleared from the hospital fifteen minutes after wed moved Javier to an ER bed and transferred care to the hospital. It was early Saturday morning now. As we drove south on the 110 Freeway back to the neighborhood of Wilmington, I leaned back in the captains seat, flicked off the lights in the patient compartment, and relished the air-conditioned darkness and the vastness of Los Angeles reduced to the two small ambulance windows. At night, the lights muted and merged and the city seemed to float in the L.A. basin like a magic carpet of color. Gazing out, it was hard to believe there were people out there suffering. Hurting each other. Heroin running into veins. Guns popping. Cars colliding. And hearts stopping. I closed my eyes exhausted after twenty hours on the job and let the stressful sights and sounds from the stabbing call run off me like wastewater. I was half-asleep when Tim exited off the 110 and turned left on the PCH. It was about that time that a forty-year-old man on North Lagoon Avenue suddenly woke up with a sharp burning sensation in his chest, like someone was stabbing a cigarette into his left coronary artery. His wife turned on the light next to the bed, grabbed the phone, and dialed three digits. We were five blocks from the station when I felt the ambulance suddenly accelerate. I blinked my eyes open: red emergency lights, followed by our sirens, the air horn, and a sharp U-turn. Hang on, yelled Tim. We just got another call. Every year in the United States, hundreds of emergency medical technicians (EMTs) enroll in paramedic school with hopes of earning their paramedic licenses and becoming certified as one of the most advanced emergency medical services providers. Often used interchangeably with the term prehospital care, EMS covers the assessment and treatment of ill or injured patients in an out-of-hospital setting (typically while also en route to an appropriate medical facility), and paramedics are at the front of the lines. I hadnt followed a traditional route to paramedic school. After graduating with a creative writing degree from Seattle University, I initially worked in business development for a real estate company in Orange County, California, and spent my free time writing and pursuing my love of the outdoors. I enjoyed my life. The money was decent. I traveled around the world, published a

few freelance articles, and even wrote a book about a twenty-four-day Snowman Trek through the Himalayan kingdom of Bhutan that received a half-page review in the Wall Street Journal. But I longed to help people in a more direct and meaningful way. It was 2007 when I first thought of becoming a paramedic, but my fascination with emergency medicine had begun many years earlier. I remember being around four years old and kicking my legs with excitement in the car when I heard sirens or when my parents said, Look, a fire truck! In the years that followed, toy fire engines responded to the mass casualty incidents I staged in my living room, and there was nothing better than visiting the local fire station, sitting on the ladder truck, and having the captain give me a sticker badge. While the sticker badges faded from my T-shirts with repeated washings in the laundry, my interest in the fire department endured. It deepened when I was in third grade and my family moved to New Hampshire, where we lived with my grandparents for a year. Their house sat directly across the street from the Newfields Fire Station, a white, barnlike structure that housed a single fire engine. The Newfields Fire Department was staffed by volunteers who were notified of a call by an alarm that sat atop a telephone pole in front of the station. When a call came in, the alarm broadcast its wake-up-the-dead wail clear across town and rattled the windows of my grandparents house. For most people in Newfields, a small town along the Squamscott River, that fire alarm was dreadful. When it rang, drivers rolled up their car windows and sped out of sight. Children fled the nearby playground, as if the sound was a swarm of bees, and I'm sure many living room rugs discovered how scared the family dog was. But for me, that alarm was like hearing my favorite song come on over the radio. The moment it sounded, I'd hurry to the wooden fence that enclosed my grandparents yard and watch the firefighters arrive at the station. Within moments, they'd race up in pickup trucks (usually with an emergency light on the dash), trailing great clouds of dust. With the greatest longing, I'd watch them dress in their turnouts, climb aboard the engine, and then zoom off. What adventures awaited those men and women! What danger! What glory! And what companionship held them together, like soldiers. To this day, the sight of a fire truck responding to a call has never filled me with sadness or annoyance or made me think, Someone must be having a really bad day! I've always thought instead, someone must have great hope because help is on the way. While the first word of an incident might be tragic or traumatic be it a heart attack or a mass shooting the final statement will always be one of heroic emergency response. The police, a fire engine, and an ambulance will respond. The American flag will shine amid the smoke, and the boots on the ground will belong to brave men and women who have arrived to help. Those childhood memories came back to me one night in 2007 as I lay on a bed in a San Diego emergency room. Earlier that evening, I'd been to a concert and had passed out in the parking lot from dehydration. My friend called 911 and, moments later, an engine and ambulance roared up. I remember three distinct things from that evening: First, the strange sensation of suddenly finding myself on the ground with no idea how I'd gotten there. Second, how comforting it felt to see a paramedic and his team of firefighters helping me as I slowly came around, and letting me know they'd be taking good care of me. And third, as we drove to the hospital (and I began feeling better), being thoroughly impressed with the paramedics professionalism. As he relayed his findings to our destination hospital and treated the dehydration that had caused my fainting spell, I realized how, within minutes, he and his team had taken my vital signs, ruled out any trauma, placed me on oxygen and a cardiac monitor, checked my blood glucose, given me a neurological function exam, started an IV, given me fluid, and done a 12-lead ECG. In the process, they had ruled out a heart attack, shock, a diabetic emergency, overdose, stroke, cervical spine injury, and seizure. I was amazed at how different the paramedics speedy treatment was from my primary care physician, who took an hour just to diagnose and treat a sinus infection. This first encounter with a paramedic as a patient instilled in me a new respect, but I also had to admit I knew nothing about what being a paramedic actually meant. Sure, I knew paramedics saved lives. But how? Did paramedics go to medical school? What was a typical day at the office for a paramedic? Did such a thing even exist? Did seeing all that trauma affect their view of the world? As I left the ER later that night, I resolved to find out more. When I saw the way the paramedics and firefighters worked together as a team and felt the comfort they brought me that night, I grew excited by the possibility of providing that same level of care for others and saving lives. Despite my interest in the fire department as a boy, I'd never really thought seriously about pursuing the profession. It just wasn't something anyone in my family had done before. Maybe it was time I tried something new. I began my quest by enrolling in a two-day wilderness first aid class, offered by the National Outdoor Leadership School. I figured it would be a good place to start since I spend much of my time outdoors backpacking, skiing, surfing, and mountain biking. The course gave me an introduction to basic first aid, the initial steps in assessing and treating patients in a wilderness setting, and performing CPR. By the end of the second day, I'd made a host of new friends and received a wilderness-oriented first aid provider card for my wallet. The experience gave me a new bounce to my step and made me want to shout, I can save a life! My obsession with the emergency medical services grew in the months that followed. I read dozens of books and articles about emergency medicine. I enrolled in an emergency medical technician program in Park City, Utah, a 120-hour course consisting of lectures, skills tests, and practical exams. EMT certification is the bare minimum for someone operating an ambulance, and the course taught me basic patient assessment, along with noninvasive skills that focused on the immediate care of critical patients. Following class, I discovered the hardest part about EMS might not be the calls, but rather finding a job. Due to the recession, none of the fire departments or private ambulance companies around Park City were hiring, so I ended up taking a job as a summer EMT at Park City

Mountain Resort. There, I responded to mountain biking accidents, hiking incidents, and a few search-and-rescue operations. I also worked as medical assistant at a local family practice, where I gained experience in the clinical setting. When I wasn't working, I pored over EMS books and did a few ride-alongs with the Park City Fire Department. As I worked in both the field and clinical settings, my passion for prehospital care grew and I discovered this branch of medicine was practiced quite differently at various provider levels. Both EMTs and paramedics are trained to respond quickly to medical and traumatic injuries; an EMT operates under a limited scope of practice, whereas a paramedic can deliver more advanced treatments. The scope of practice varies from state to state but, generally speaking, an EMT can assist with a half dozen medications, whereas paramedics have access to more than three times as many possible drugs for their patients. In many places, EMTs can't break the skin of a patient, but paramedics can start IVs, give medications via intramuscular injections, test blood sugar, or insert an angiocatheter through the chest wall to reduce the tension built up from a collapsed lung. Paramedics can also do advanced airway maneuvers like inserting a breathing tube down a patient's throat or making a surgical incision under the Adams apple if needed. I also found out EMS was delivered to people quite differently, depending on the area and which agency had jurisdiction over the 911 calls. In some places, the fire department responds to all emergencies with an ambulance and fire engine. The ambulance is staffed with either two paramedics, or a paramedic and an EMT. The engine also responds with three or four firefighters, who, depending on the call, also assist with the often overlooked but ever important tasks of documentation, interviewing bystanders about the call, crowd control, extricating patients from vehicles, lifting obese patients, or doing chest compressions. In other areas, the fire department doesn't have ambulances as part of its fleet, so private, for-profit ambulance services assist with patient care and transport. Since 80 percent of a fire department's call volume is medical illness or traumatic injury, most firefighters these days have the dual responsibilities of fighting fire and working as EMTs or paramedics. Despite the complexity of scope of practice, EMS still seemed like the perfect career to me. I enjoy meeting people, hearing their stories, and helping them in a time of need. I also find the human body and medicine immensely interesting. And few jobs in the health care industry are as dynamic as prehospital care. I also loved the team aspect of EMS working with a crew, the ER staff, and doctors, all toward the common goal of good patient care. And, last, there was just something about holding a radio and saying, Copy that! that made me supremely happy. Maybe the radio brought back the innocent walkie-talkie days of my youth. Maybe it meant I was finally realizing my boyhood dream of hopping aboard a fire engine. Or maybe it just symbolized what I've come to hold most sacred in life: people helping people. I had learned a lot about EMS in the two years since that fateful night in the ER in 2007, but I was hungry for more. This left me with one option that filled me with both wild excitement and trepidation: paramedic school. The jump from being an EMT to a paramedic is the equivalent of transitioning from high school baseball to playing in the majors. While basic treatments must always precede advanced life support interventions and a great EMT can, at times, be more effective than a poor paramedic, the paramedic's scope of practice is simply way beyond an EMT's. A paramedic is the senior medical authority on every emergency scene and has the ultimate decision on patient assessment, treatment, transportation, and hospital destination. Paramedics also make the initial determination about whether to work up a cardiac arrest patient on scene, or determine the patient deceased in the field. In fact, paramedics are held in such high regard by many emergency departments across the country that many doctors now instruct paramedics not to transport a patient in cardiac arrest to the hospital unless they get a pulse back—the message being that if a paramedic can't kick-start a patient's heart in the field, then an emergency room physician won't be able to do it, either. Every paramedic starts off with at least six months of field experience as an EMT and a valid American Heart Association CPR card. Also required is a driver's license; a high school diploma (at least); and passing a medical physical, an oral interview, and a written entrance exam to paramedic school, a 1,230-plus-hour intense blend of boot camp and medical school. Completion of college-level English, math, anatomy, and physiology courses certainly help, as do classes in medical terminology, ECG (electrocardiogram) interpretation, and pharmacology. And while not an official prerequisite, it's also probably best for everyone if you don't get too freaked out by the sight of severed limbs, protruding bones, bullet holes, blood, vomit, feces, urine, scabies, lice, or bed bugs and if you can keep it together when a patient stares you in the eye and says, Please don't let me die. Over the course of a paramedic's career, he or she will at various points contend with grueling twenty-four-hour shifts, being rookies at a fire station, and learning new treatment protocols and medications, as well as responding to all the urgent calls. And yet none of these experiences matches the stress of paramedic school, where a student must endure all these elements at once—often for the first time and for months on end. Paramedic school is divided into three distinct segments. The first part begins with 540 hours of instruction on anatomy and physiology, pathophysiology (the study of disease), and pharmacology, as well as high-stress practical skills tests and emergency scenarios. Next, paramedic students work with patients during grueling tours of duty in local hospitals and trauma centers. During clinical rotations, paramedic students start IVs, give injections, practice intubation, assist with birth, and get a unique, behind-the-scenes look at some of the nation's busiest emergency rooms, labor and delivery wards, operating rooms, and intensive care units. The hours are long and the pace relentless, but both the classroom and the clinical rotations pale in comparison to the last and most difficult part of paramedic school: the field internship. During the field internship, paramedic students work twenty to thirty twenty-four-hour shifts with a local fire department or

private ambulance service and struggle to make the difficult and often traumatizing transition from the classroom to being street-smart medics. The field internship is where paramedic students discover that while treatment protocols are written in black and white, the job is often a hazy shade of gray. During internship, you not only have to contend with long shifts and being an outsider at a fire station, but also running calls while being graded by two paramedic preceptors. When I asked one graduate what field internship was like, he replied, Just get kicked in the nuts; it feels about the same. I heard a lot of horror stories about paramedic school about panic poops before written tests, sleepless nights on the eve of skills exams, long hours of clinical rotations, and post-traumatic bouts of crying during field internship. And of course, there were countless stories of students failing out. Paramedic school was notorious for straining relationships, or ending them all together. Several people told me paramedic school felt like a college finals week that lasted for nine straight months. Others when asked gave me only a sorry slap on the back and a smile that seemed to say, You'll see... Despite these warnings, I was still intent on going to paramedic school. While most graduates said they'd never want to endure it twice, they were also quick to admit the experience was one of the best times of their lives. As I began my research, I looked for a paramedic school with a national reputation. That way, if I applied for jobs out of my region after graduation, my school would have name recognition with employers. I also wanted an institution with a renowned faculty who had time-in-the-trenches experience as paramedics and a school whose graduates had a high success rate on the National Registry Paramedic Exam and were hired quickly after graduation. Lastly, I wanted a paramedic school where my field internship took place in a high-call, urban environment. I wasn't seeking out stabbings, shootings, suicides, car accidents, or the like from a sensationalist point of view; my goal, like a pilot who practices landing his plane in all conditions, was to learn how to run every type of call so that I could become the best paramedic possible. I discovered many good programs across the country, but the UCLA Paramedic Education Program was my top choice. Originally called the Daniel Freeman Paramedic Program (and still widely known by the name), it was one of the first three paramedic programs in the country, along with one run jointly by the Miami Fire Department and the University of Miami, and Seattle's renowned Medic One program. It was the first in the nation to be nationally accredited and has maintained both a national and international reputation for producing an elite group of professional, critical-thinking medics over the past forty years. Historically, 90 percent of UCLA's paramedic students passed the National Registry qualifying exam the first time and 95 percent were hired within six months of graduation. I liked, too, that UCLA's Paramedic Education Program didn't exist in isolation, but was part of UCLA's Center for Prehospital Care, a division of the David Geffen School of Medicine that specialized in EMS education, research, and taught over twelve thousand students a year, including members of the FBI, DEA, State Department, U.S. Air Force, U.S. Coast Guard, and fire department personnel from across L.A. County, LAFD, Pasadena, Burbank, Long Beach, Ventura, Santa Monica, Manhattan Beach, and Compton, among others. I was also impressed that all of the faculty and skills instructors at UCLA were themselves paramedics with years of experience, and that they went above and beyond the national curriculum by certifying students in pediatric advanced life support (PALS), advanced cardiac life support (ACLS), and prehospital trauma life support (PHTLS). With nearly ten million people representing 140 different nationalities and speaking 224 different languages all squeezed into 4,752 square miles, I figured even the slowest day in L.A. was busier than the busiest in many parts of the country. The Los Angeles Fire Department ran over 830 medical and trauma calls a day, virtually ensuring that I'd respond to almost every kind of call. And as an added bonus, if I attended UCLA, I'd be near my family, who had relocated to southern California. I submitted my application with two letters of recommendation in the spring of 2010 and visited the school in June to take the EMT qualifying exam. Everything about the school felt right: the building and its location, as well as the faculty and prospective students I met. Graduation pictures from almost a half century of classes lined the main hallway and, the moment I saw them, I felt a kind of ownership and pride, and I decided I'd do whatever it took to get my picture on that wall. With that thought driving me, I aced my exam and interview and, by January 2011, found myself headed south on the 405 Freeway early one morning to take my spot in Class 36. The first part of the drive went smoothly but, as I crossed into the city limits of L.A., my enthusiasm halted with the traffic. Smog blotted out the sun and covered the horizon in an eerie, orange glow. Blown tires and trash littered the highway, and gang graffiti tagged the street signs. Los Angeles no longer felt like the fabled City of Angels, but more like what rapper Dr. Dre declared the home of drive-bys and AK-matics, swap meets, sticky green and bad traffic all hovering on the brink of chaos: a gigantic game of Jenga, built by the teetering blocks of race, socioeconomic status, and gang affiliation. Having grown up in a small town in New Hampshire, a place where you didn't lock your front door, I was about to experience a whole new side of life. As I exited onto Manchester Avenue, heading east toward the paramedic campus in Inglewood, the responsibility suddenly seemed overwhelming and I felt short of breath. In just a few short months, someone in an emergency would call 911 and the fire station I was interning with would respond. No one would arrive before us. No one would arrive with us. Or after us. We would be it. There were no other paramedics warming up like relief pitchers in an EMS bullpen somewhere in case we had a bad day. If we couldn't save the patient's life, it wouldn't be saved, and someone would lose a spouse, a mother, a father, a sibling, a friend... or a child. I tried to psych myself up, as you might in the locker room before a big game. My brain began a quick list of bullet points to calm my nerves and assure me of success: Captain of high school basketball team? Check. Deans List in college? Check. Success in the high-

stakes real estate world? Check. Guided a twenty-four-day, 216-mile trek through the Himalayas on two separate occasions? Check. Published a book? Check. And I spent nearly every waking moment of the last few years pursuing emergency medicine. Big, bold, underlined check. By the time I pulled into the lot outside the paramedic school, my worries had disappeared. I told myself I would finish paramedic school. And I would not only pass, but I would prevail. I would graduate at the top of my class and be elected valedictorian. I had the maturity. I had the education and I had the experience. Above all, I had the will. I had no idea.

One | Classroom

Next to creating a life, the finest thing a man can do is save one. Abraham Lincoln

To know even one life has breathed easier because you have lived this is to have succeeded. Ralph W. Emerson

January Day One

The UCLA Paramedic Education Program is located on the grounds of the Daniel Freeman Hospital in Inglewood, eleven miles south of UCLA's main campus in the Westwood neighborhood. The Daniel Freeman Hospital itself was closed in 2007 and now serves as a location for television shows and movies shooting medical scenes. The paramedic school occupies the Walter S. Graf Center, a large single-story building on a quiet street of residential homes and a private high school, nestled between the hospital and a helicopter pad a veritable embodiment of how the profession isn't solely focused on patient care or transportation, but inhabits the dynamic space in between. I pulled into the parking lot on my first day, already crowded with cars and pickup trucks, many bearing red fire helmet stickers in their back windows. I also noticed two dented vehicles with cracked windshields, which appeared to be abandoned. One car was an old white Toyota. The other was a black Chevrolet Monte Carlo, missing letters. I wondered if they'd been left behind by former students who'd crashed and burned out of paramedic school; or maybe they'd been donated by California Highway Patrol for use in extrication scenarios. Either way, I didn't park close, opting for an open space on the other side of the lot. I grabbed my backpack and followed a procession of students V-lining to the door as if the building was a city bus about to leave without us. Despite what I'd considered my early arrival, the main classroom was jammed. Two columns of long gray tables stretched from the front of the large classroom to the back. Students sat in blue chairs in pairs of two or three at each table. A large dry erase board hung on the front wall, across which Welcome, Class 36 had been written in black marker. There was also a podium with a desktop computer and a skeleton model standing in the corner. The skeleton seemed to have a mocking grin, as if he knew something we new students didn't. I found a seat in back and took stock of my forty other classmates. Almost all guys, except one woman with shoulder-length brown hair who was seated up front. At thirty-six years old, I figured myself likely the oldest student here, by a pretty wide margin. The youngest student I pegged as the kid sitting across from me on the left side of the classroom. With hints of acne dotting his face, he looked as if he'd just traded in his tuxedo from high school prom and caught the first bus to paramedic school. In addition to the woman and the kid, there were eight guys who had clearly been sponsored by their respective fire departments. They all wore black boots, navy blue station uniforms, and shiny badges. The sponsored firefighters would have paramedic school paid for by their departments while earning their regular salaries. Not a bad gig. The rest of us private students wore various manifestations of the school dress code of long pants, close-toed shoes, and collared shirts. And I noticed that everyone was sitting in exactly the same position with both feet planted firmly on the ground. Spines straight. Hands folded in our laps and a notebook and pen at ready on the desk. It felt like West Point. I half expected a drill sergeant to storm in the room and yell, Hey, plebe, what's the adult dose of epinephrine in a cardiac arrest?... Wrong!... A hundred push-ups now!

At eight a.m., the side door at the front of the classroom opened and Heather Davis appeared. Ms. Davis was we were to refer to her was program director for the paramedic school. Good morning and welcome to paramedic school, she said with a beaming smile. I hope you are all as excited as we are to get started. A registered paramedic with a masters degree in science, Ms. Davis worked in EMS for nearly twenty years in such areas as disaster response, critical incident management, and tactical EMS. Prior to UCLA, she served as education program director for the Los Angeles County Fire Department, where she handled the primary EMT and continuing education programs for over three thousand EMTs and paramedics. She'd been widely published, was a frequent speaker at EMS conferences around the nation, and had recently been named California's EMS Educator of the Year in 2010. Ms. Davis began with a brief introduction about the philosophy and mission of the program. We want to carry forward the mission of Daniel Freeman Hospital by providing quality health care with compassion that is inspired by ethical, moral, and human concern for the dignity for each person, she said. And we want to make a local, national, and international contribution to the field of emergency medicine. From there, Ms. Davis spoke about all the good we'd do as paramedics, helping people in their time of need and saving lives. It was really inspiring stuff, and brought to mind what another paramedic who'd spoken at our earlier orientation had said: Your patients will be hovering between life and death, and you are going to be the angels that stand in the gap between. Next, we went around the room and introduced ourselves. Five of the sponsored firefighters were from Los Angeles County Fire Department, three from Santa Monica Fire Department, plus another firefighter from Corona Fire Department, who was paying his own way. The ratio of sponsored firefighters to private students at UCLA varied with every class. In some classes, there were less than five private spots available. Other times such as our Class 36 private students made up the majority. All of us, of course, had EMT experience (a prerequisite), but even outside of EMS, the students in Class 36 boasted an impressive mix of accomplishments: Among us were ex-Marines, musicians, two former Division 1 soccer players, and a former professional water polo player who'd nearly qualified for the Olympics. One guy, named

Patel, had graduated from baking school prior to becoming an EMT, and I learned the young kid sitting across from me was nineteen and named OBrien. Hed be giving morphine to patients before he could legally drink.Its great having you all here, Ms. Davis continued, and I hope youre ready for an incredible journey.She handed out our syllabus for the next four months. The syllabus was eleven by seventeen inches, more akin to poster size than a piece of paper, with double-sided printing. The sheer amount of material was jaw-dropping, like four years of med school squeezed into four months.As Ms. Davis reviewed the course schedule and syllabus, I quickly realized that class in paramedic school was not going to resemble the laid-back lifestyle Id enjoyed in college. Wed have class from eight a.m. to five p.m. Monday, Tuesday, Thursday, and Friday. There were no lectures scheduled on Wednesdays, but the school would be open for optional study sessions and skills practice. It was clear by the way Ms. Davis said the word optional, however, that our only option would be to attend.Wed spend January learning anatomy and physiology (A P) and patient assessment. Wed study topical anatomy, the organ systems, bones, major vessels of the body, and, most important, how these systems worked together... or didnt.After A P, wed plunge into the Airway Academy, where wed learn how to manage a patients airway and breathing with skills such as endotracheal and nasal intubation (inserting a breathing tube into a patients windpipe via their mouth or nose) and performing a needle decompression (piercing the chest wall with a needle to relieve the tension built up by a collapsed lung). Following this, medical math would challenge us with long equations, and wed have exams covering pharmacology, trauma, cardiology, medical emergencies, obstetric emergencies, geriatric patient care, and pediatric patient care.Over the next four months, wed endure daily quizzes, lengthy reading assignments each night, online assignments, and monster block exams that detonated like bombs every few weeks. Wed also run emergency scenarios and high-stress skills tests, which one former graduate described as the only thing that can reduce a grown man to a puddle of nausea, vomiting, and diarrhea.Which leads me to my next point, Ms. Davis continued. How you can be terminated from the program.The room fell silent.