



## **Confessions of a Real-Life Forensic Pathologist**

**Something was lodged in her windpipe.** As I probed with my gloved fingers, I discovered that it was a piece of gum. Normally, this wouldn't be odd, except that I found it in a cadaver I was dissecting as a first-year medical student. Cadavers are preserved hulls of bodies, donated remains. Doctors-to-be become acquainted with them in anatomy classes. To us, they aren't people. We learn to depersonalize our cadavers, to think of them as structures and tissues, not as human beings. And in med school, they're used to teach us anatomy, not how to find the cause of death. Cadavers don't usually give up clues. That's not their job.

But when this one died, she was chewing gum. This made me curious. How did she get to this point? Where did she come from? How did she die? I started asking if anyone could get me some history on my cadaver. The body, it turned out, was of a nun who died suddenly of cardiac arrest while chewing gum.

And so began my fascination with how people die.

I might as well take a moment here to introduce myself. I'm a medical

examiner, the only type of doctor whose patients are dead. “Dr. G” is the nickname I was given by my team of autopsy technicians in Bexar County, Texas, where I served as medical examiner for ten years. My Italian last name, Garavaglia, is hard to pronounce correctly, since the second “g” is silent, like it is in “lasagna.” My technicians shortened it to “Dr. G,” and it stuck.

Like that “g,” my patients are silent. They can’t tell me how they died, so I have to find out. Their bodies store secrets and have stories to tell. Sometimes there aren’t many details, maybe not even firm answers. But usually there are clues about how people lived, what diseases and injuries they had, and how they died. Those clues get discovered through an autopsy, a thorough, methodical examination of a body. The results can help solve crimes, settle lawsuits, and give families needed information about their loved ones. Often it is tricky work, like solving a puzzle.

During an autopsy, I make notes and take photographs. I do an internal examination organ by organ. I slice them into neat pieces with a carving knife, looking for irregularities. I’ve been told, “I could use you when I butcher a deer.” But when I cut, I’m looking for answers. During the autopsy, I may make microscopic slides and take fluid samples for the toxicology laboratory. This is the methodology for finding out how someone died.

## Preventing Premature Death

I obviously have no problems with autopsies, although I hope to wait a long time before one is conducted on me. I learn something from every one of them, and what I have discovered is that many deaths don’t need to happen. Yes, everyone eventually dies. You can’t prevent that, but you can avoid life’s inevitable toe tag from arriving *prematurely*. And you can do it with the simplest lifesaving acts, whether it’s strapping on a seat belt correctly, making subtle changes to your diet, or following your doctor’s orders. That’s not all, either. There are other actions you might not be aware of that can save your life. For example, did you know that open or partially open car windows increase the risk of more severe injuries in an accident? There are many lessons that can be

learned from the dead—lessons that can help us, the living, take better care of ourselves. I wrote this book to show you how to avoid an early trip to the morgue.

I see ways to prevent premature death, just like other doctors see ways to prevent illness, and I'll share them with you on every page of this book. Through what I've seen and experienced, I will give you a new understanding of your health and the consequences of the everyday decisions you make, so you can take better care of yourself and everyone around you. Sure, your body may have a few dings and dents, but this body of yours has many more miles to go, too. I've organized the book around topics to bring you better health, such as losing weight, overcoming addiction, avoiding accidents, and surviving a hospital stay. Clearly, some accidents are unavoidable and some sudden natural deaths are inevitable, but the simple measures outlined here will give you an edge.

The dead and their autopsies have been great teachers for me, but not until I started taping my television show, *Dr. G: Medical Examiner*, did I realize that others could also be moved to action by my stories from the morgue. Many times, a televised case will generate letters and comments from viewers who finally make the concrete connection between their behaviors and their health. They see the evidence of the harmful things we do to our bodies: lungs mottled with black streaks due to smoking, organs dangerously enlarged by obesity, arteries choked off by plaque, and once brown, healthy livers turned yellow and fatty from alcohol abuse. The body tells the tale of how someone lived, how they died, and how that death might have been prevented.

A lot of people argue that when death comes, "it's your time to die." I don't believe the difference between life and death always turns on timing. Sure, some people just have bad luck and develop an illness or suffer an accident that is totally unavoidable, but a lot of us make our own bad luck. Life is a series of choices. And these choices, plus genetics and luck, determine our fate. You can control what you eat, you can control how fast you drive, you can control whether or not you abuse drugs—you control the choices you make. Making the right choices can offer a chance at a much longer and healthier life.

I remember doing an autopsy on an old man found facedown in the dirt

next to his back porch with contused and bloody hands. (You'll read more about this case in chapter 9.) At first, it looked like this man was possibly the victim of foul play. But the autopsy and scene investigation revealed a man suffering from dementia who became confused after retrieving his mail. He tore his screen door, cut his hands, slipped, and fell.

What could anyone learn about healthy choices from the death of this man who had the misfortune of having Alzheimer's, as of today an unpreventable disease? When performing this seemingly routine autopsy, I took the opportunity to show my producer how our Western diet, with its lack of fiber, had ravaged this man's colon by causing diverticulitis—small pouches in the wall of the colon had become inflamed. The appearance of that colon had a profound effect on my producer when I explained the reason for these changes was lack of fiber and exercise, causing the stool to move slowly through the bowel and creating increased pressure in the bowel lumen. Suddenly the light went on. My producer understood why his own doctor had been telling him to increase his fiber intake and exercise. Prior to seeing that bowel, it was empty advice, but combined with that visual, it motivated him to change.

Through my work with the dead, I've often seen untreated illnesses that get horribly out of control and cause premature and unexpected death. I still get comments about a case that aired on the *Dr. G* show in which an overweight middle-aged man, who lived alone and never bothered with a checkup, one day lumbered up the stairs to his second-floor apartment, groceries in hand, and when he went in, he sat down and died. The autopsy showed long-standing changes in his heart and kidneys and a large new bleed inside his brain, all caused by high blood pressure, an easily treated disease of which he was unaware. People tell me that that story motivated them to take their antihypertensive pills each day and get their blood pressure tested regularly, because they finally understood that high blood pressure is a silent killer.

Just as I tell students when I lecture on drugs and alcohol, I may not be an expert on *why* you decide to take drugs, or *how* to treat drug addiction, but I'm an expert on how drugs and alcohol cause you to end up in my morgue. If you

choose to use drugs and abuse alcohol, you need to be aware of how they can and do kill. Similarly, not watching your weight, not taking time to exercise, and eating junk food are choices you consciously make, and you should know the ultimate consequences of these decisions and how they might result in a quicker-than-expected trip to see me.

## My Life in Forensics

The world of death and grieving families is probably not the life my parents would have imagined for me, but I love it. I love putting the pieces together, being able to use creative thought, and solving the mystery of death. When people ask me how I ended up in this line of work, I tell them about Dr. George Gantner, a prominent forensic pathologist and one of the founders of the specialty. I took a course from him in medical school and was riveted by what he did. His lectures, punctuated by all sorts of autopsy photos, were intriguing. When I chatted with him, I became even more fascinated with the work.

Dr. Gantner shaped my decision to become a forensic pathologist, but it was my high school chemistry teacher who inspired me to become a doctor. He told me I was capable of success in medicine, a field I found fascinating but had not previously considered. So I shelved my original plans to teach home economics. In thinking about a future career, I decided the two most-needed professions in society were farming and medicine. If the world starts falling apart, we need farmers to feed us and doctors to fix us. Since every plant I touched died, I said, Okay, I'll be a doctor.

As a young med student, I thought medicine was a noble profession, and I still do. But I got disillusioned as an intern and realized it might not suit my personality. I loved the workings of the human body, and I loved coming up with diagnoses. But dealing with patients' complaints day in and day out—so many complaints that were related to how they were living their lives—wore on me. At the time, I worked in a clinic where I treated people mostly for lifestyle-related conditions due to smoking, not exercising, being overweight, or alcohol

consumption. Even though I'd prescribe medication and other treatments to help them, they'd return to the clinic month after month with the same complaints, and many weren't even taking their medicine. It frustrated me. I decided I couldn't keep that up for a lifetime.

As I investigated the field of forensic pathology, I worried that I wouldn't be contributing to society and that I'd be wasting my medical education. I came to realize, though, that you can do good in the world through forensics. Maybe you couldn't do anything for the individual you were examining, but you could help family members and society as a whole. Some families can't complete the grieving process with unanswered questions. Often I have family members say, "It can't be a suicide," for example. No one wants to believe a loved one would take his or her own life. Once I was called to autopsy an apparent suicide victim whose parents were very religious and believed that suicide was a sin. After doing the autopsy, I discovered that the deceased had died a natural death, from a brain aneurysm. The family was deeply grateful for that answer. On another occasion, a young man was brought to my morgue, and everyone thought he had died of a drug overdose. But his mother insisted that he did not do drugs. We repeated the toxicology tests and found that his mother was right. There was no evidence of drug use. Knowing how a family member died brings closure and comfort even if the answer is not what the loved ones want to hear. Though the information does not bring back a loved one, it does help the grieving process, and this is the healing I can give.

## Forensic Pathology 101

My line of work is known as forensic pathology. It's the field of medicine concerned with how people die and ultimately determining the cause and manner of death. "Cause of death" refers to the action or condition that results in death and can include such things as suffocation, drowning, heart attack or stroke, gunshot wound, or a blow to the head or other body part. In contrast, "manner of death" refers to whether the death is the result of natural or unknown causes, homicide, suicide, or an accident.

It's hard for me to generalize about what I look for when deciphering a death, since every case is a mystery, but I do look at each one as though foul play could have happened and try to rule it out. A gunshot wound, for example, can be a suicide, a homicide, or an accident. With a gunshot, I'd ask, "Is it a weird angle? Is it a contact wound?" What the person left behind can tell me what happened; I'll see if the autopsy findings can confirm or deny what's been alleged. For example, a wife may say her husband had been despondent for weeks and finally got a gun and killed himself. I'd look at the wound to determine if it's a contact wound, which most suicides are, or whether it is the result of a gun fired from ten feet away. I've handled cases where everybody bought the story from the "grieving widow" until it was proven there was no way the husband could have pulled the trigger himself.

## I'm Not a Coroner

There are two types of death investigation systems in the United States: coroner systems and medical examiner systems. At present, twelve states have coroner systems, nineteen have state medical examiner systems, three states have county or regional M.E. offices with no coroner offices, and sixteen have a mixture of medical examiner and coroner systems. It's a real patchwork.

I've often been asked if I'm a coroner. I explain that, no, I'm not a coroner, I'm also not a mortician, and I don't drive a hearse. Coroners are elected officials, and they usually aren't forensic pathologists. A coroner's training can range from absolutely none to full training in forensic pathology. A coroner could be a funeral home director, a tow-truck driver, or a CEO. In some states, anyone who runs for coroner and is elected gets the job. I've dealt with sheriffs who were coroners. I believe this is a conflict of interest. What would happen if someone died while in the sheriff's custody? The sheriff certainly wouldn't want suspicion cast on his department. What would be the public perception if he ruled the death as natural, regardless of whether his ruling was correct?

In making rulings, coroners don't have to consult physicians for advice, but

they have to hire physicians to do autopsies. Even then, someone who is unfamiliar with signs of violence, for example, might confuse gunshot entrance and exit wounds or be unable to tell whether brain trauma was caused by a blow or a fall.

A coroner need not rule in agreement with autopsy findings. I have worked with coroners who are completely unqualified to rule on cause and manner of death. In some egregious cases, coroners have rejected forensic pathologists' findings of homicide and instead labeled deaths as "accidental," perhaps letting a few people get away with murder.

In fighting crime or deciphering a death, the most important clues are often furnished by the autopsy—which is why the best death investigation systems have an independent, well-trained forensic pathologist to investigate and certify deaths. Citizens deserve an honest voice, someone with no dog in the fight and who isn't subject to pressure, political or otherwise. As a medical examiner, I'm not beholden to the state attorney, law enforcement, or the hospital, because sometimes my decisions may have to go against any of them.

The coroner system, the older of the two death investigation systems, started with good intentions. The term "coroner" dates all the way back to the twelfth century A.D., to England. Back then, the sheriffs, who were the dominant law officers representing the Crown, were charged with collecting legal fines and taxes from the people and delivering them to the king. Instead, they extorted, embezzled, and basically did anything they could to keep the money for themselves. Once the king realized this, he set up a checks-and-balances system by appointing a coroner, or a keeper of the pleas of the Crown, to record everything that happened in the towns and cities throughout the country.

In those days, there were huge fines associated with death. (For example, say your ox cart rolled over my son. The sheriffs would confiscate your ox and cart and some of your possessions as payback, and a cut of that would go to the king.) So one of the coroner's most important functions became the recording of death and everything relating to it—the circumstances; the cause; the what, where, when, and why. This is pretty similar to my job today.



Massachusetts was the first state to institute a medical examiner system, in 1877, when lay coroners were replaced by physicians who were empowered to determine cause and manner of death. Until 1940, the Massachusetts medical examiner did not have the right to order autopsies. But the law was eventually changed, allowing autopsies at the discretion of the medical examiner.

The first modern medical examiner system was established in New York City in 1918, when the city adopted a law that abolished the coroner system. A physician with experience in pathology was appointed chief medical examiner and could perform autopsies without family consent. Medical examiner systems don't always run smoothly. New York City's system was crippled in the 1980s by the enactment of a law that allowed families to stop autopsies in cases in which the manner of death didn't appear to be homicide. That's a problem, since you can't always recognize a homicide until you do an autopsy. Thankfully, that law has been modified.

## Inside My Morgue

Often I'm asked how I deal with the loss of human life and with loved ones. I grew up as the only daughter of an Italian butcher from St. Louis, Missouri. Death has never really bothered me. I see it as a natural part of life. I was brought up Catholic, with a set of clear moral values. Although I was taught that there's a heaven and a hell, I didn't put much thought into what happens to us after we die. But I don't believe that we go through this world just to end up on a slab. You can look at the faces of the dead and you know something is missing. It's the soul, and it has departed from the body.

I've been a medical examiner for most of my adult life—one of about five hundred in the United States. Every year, my jurisdiction—District Nine of Orange County, Florida—performs more than eleven hundred painstaking autopsies, looking for the often-hidden signs of wounds, disease, or trauma.

Some people believe that forensic pathologists deal only with homicide victims or that the majority of our cases involve crime. The truth is that in my office, as in

most medical examiners' offices in the United States, only around 10 percent of the cases are homicides. About 40 percent of the deaths that come through my office are from premature natural disease; 40 percent are accidents; and 10 percent are suicides. Based on those statistics, it's striking to me how many of the deaths I deal with are premature and could have been avoided with better lifestyle choices, preventive care, or commonsense caution.

The tools we use in the morgue are not the stuff of high-tech medicine like you'd see in a hospital, since our job isn't to bring people back to life. It's to solve the mystery of what happened to them. We use a lot of familiar household-type objects: carving knives, knife sharpeners, hedge clippers, and sponges with scouring pads on one side, in addition to our normal tools of the trade like scalpels and bone saws. I've even used superglue (about \$2.69 at the drugstore) to bring the edges of a wound back together so I could see its characteristics more clearly. We have a large walk-in refrigerator in the morgue, too, like the kind you see in restaurants. We use it to slow down decomposition. The back shelves of our cooler are for our "long-term residents," the unidentified bodies we hold while their identities are being investigated.

Present during an autopsy are the medical examiners, who are all doctors, and our technicians, who assist us. From time to time, others drop by, like detectives working a case. I don't usually allow people to observe an autopsy unless there is good reason. The people I work on didn't ask to be there and probably wouldn't appreciate an audience.

Once, my son Alex, four years old at the time, accidentally wandered into the autopsy suite while I was performing an autopsy. He saw the skull and brain resting on the sink. I was horrified but quickly composed myself and vowed not to make a big deal of it. I explained what I was doing in matter-of-fact language, so he could see that it was my job. He watched for a moment, then asked, "Can I leave?"

For the next few days, I watched for repercussions like nightmares, but Alex seemed fine. Then I heard what he was saying at nursery school when kids asked him what his mom did for a living. He'd tell them, "She cuts off people's heads."

After doing an autopsy, I retreat to my desk, which is badly in need of a bulldozer, and dictate a report. It's transcribed by medical transcriptionists and will be read by many people. This is detail work essential to my job, but scarcely the stuff of drama. I sign a death certificate and make sure the body gets to the right place. I share my findings with the family members, who are understandably eager to know how their loved one passed.

What I do is interesting to people, and that's why TV shows depicting this work are so popular. Forensic stories are always fascinating, whether they're real or created in drama. For me, it's always the real stories that are most interesting. Fiction rarely holds my interest because I feel that the stories or the cases I work on every day are more interesting. Sometimes you can't make up the things that happen because nobody would believe them.

My show, *Dr. G: Medical Examiner*, deals with the real stories, but we use dramatizations to re-create them. When they show a dead body, it's an actor, out of respect to the families. Even if the families give permission, it's very hard to see a dead loved one on the screen. Being sensitive to the families is part of my job.

As a forensic pathologist, I see a lot of things that most people don't—deaths that shouldn't have happened, deaths that are senseless tragedies, and more. It isn't always the traumatic or the dramatic that kills us, but the small lapses in attention and judgment made in an instant or imperceptibly over time that can do us in. I've come to appreciate that how we choose to live plays a vital role in our health and well-being. Surprisingly, being surrounded by death has taught me how to live a healthier, happier life, and I've changed my own behaviors as a result of what I see every day. I don't have all the answers and don't treat the living, but I have great insights into how not to die.

If there's one thing that working in a room of the prematurely dead has taught me, it is that life is precious, and you never know when it's going to be taken away. I'll never take for granted that I'm alive and healthy, and I plan on staying that way as long as I can. And I want to help you do the same.