The road to becoming a doctor is long and full of pressure. After graduating from college, one must complete four years of medical school and then one year of a supervised internship at a hospital. Those who specialize next embark on at least three years of training as a hospital resident. Interns and residents work long hours and gain as much experience as possible. As you read this selection, compare the pressures that you feel with the young doctor’s pressure to perform.

The patient, or better, victim, of my first major surgical venture was a man I’ll call Mr. Polansky. He was fat, he weighed one hundred and ninety pounds and was five feet eight inches tall. He spoke only broken English. He had had a sore abdomen with all the classical signs and symptoms of appendicitis¹ for twenty-four hours before he came to Bellevue.²

After two months of my internship, though I had yet to do anything that could be decently called an “operation,” I had had what I thought was a fair amount of operating time. I’d watched the assistant residents work, I’d tied knots, cut sutures³ and even, in order to remove a skin lesion,⁴ made an occasional incision.⁵ Frankly, I didn’t think that surgery was going to be too damn difficult. I figured I was ready, and I was chomping at the bit to go, so when Mr. Polansky arrived I greeted him like a long-lost friend. He was overwhelmed at the interest I showed in his case. He probably couldn’t understand why a doctor should be so fascinated by a case of appendicitis; wasn’t it a common disease? It was just as well that he didn’t realize my interest in him was so personal. He might have been frightened, and with good reason.

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1. appendicitis (ap-pén’dī-sit’is): an illness in which the appendix—a small, wormlike extension of the intestine—becomes inflamed. If an inflamed appendix is not removed, it can burst and cause a fatal infection.
2. Bellevue (bēl’vyōō): Bellevue Hospital, in New York City.
3. sutures (sū’tarz): stitches closing a wound.
4. lesion (lē’shan): a wound, an injury, or an infected or diseased patch of skin.
5. incision (in-sīzh’an): a surgical cut.
At any rate, I set some sort of record in preparing Mr. Polansky for surgery. He had arrived on the ward at four o’clock. By six I had examined him, checked his blood and urine, taken his chest x-ray and had him ready for the operating room.

George Walters, the senior resident on call that night, was to “assist” me during the operation. George was older than the rest of us. I was twenty-five at this time and he was thirty-two. He had taken his surgical training in Europe and was spending one year as a senior resident in an American hospital to establish eligibility for the American College of Surgeons. He had had more experience than the other residents and it took a lot to disturb his equanimity in the operating room. As it turned out, this made him the ideal assistant for me.

It was ten o’clock when we wheeled Mr. Polansky to the operating room. At Bellevue, at night, only two operating rooms were kept open—there were six or more going all day—so we had to wait our turn. In the time I had to myself before the operation I had reread the section on appendectomy in the *Atlas of Operative Technique* in our surgical library, and had spent half an hour tying knots on the bedpost in my room. I was, I felt, “ready.”

I delivered Mr. Polansky to the operating room and started an intravenous going in his arm. Then I left him to the care of the anesthetist. I had ordered a sedative prior to surgery, so Mr. Polansky was drowsy. The anesthetist, after checking his chart, soon had him sleeping.

Once he was asleep I scrubbed the enormous expanse of Mr. Polansky’s abdomen for ten minutes. Then, while George placed the sterile drapes, I scrubbed my own hands for another five, mentally reviewing each step of the operation as I did so. Donning gown and gloves I took my place on the right side of the operating-room table. The nurse handed me the scalpel. I was ready to begin.

Suddenly my entire attitude changed. A split second earlier I had been supremely confident; now, with the knife finally in my hand, I stared down at Mr. Polansky’s abdomen and for the life of me could not decide where to make the incision. The “landmarks” had disappeared. There was too much belly.

George waited a few seconds, then looked up at me and said, “Go ahead.”

“What?” I asked.

“Make the incision,” said George.

“Where?” I asked.

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6. intravenous (*in*’trə-ˈve-nəs): a drug or other substance administered into a vein through a needle and tubing.

7. anesthetist (*a-nés-thə-tɪst*: a person trained to administer anesthetics, drugs that make a person insensitive to pain.

8. sedative (*sed-*ˈə-tiv*: a drug with a calming effect.

9. scalpel (*skəl’pəl*: a surgical knife.
“Where?”
“Yes,” I answered, “where?”
“Why, here, of course,” said George and drew an imaginary line on the abdomen with his fingers.
I took the scalpel and followed where he had directed. I barely scratched Mr. Polansky.
“Press a little harder,” George directed. I did.
The blade went through the skin to a depth of perhaps one sixteenth of an inch.
“Deeper,” said George.
There are five layers of tissue in the abdominal wall: skin, fat, fascia (a tough membranous tissue), muscle and peritoneum (the smooth, glistening, transparent inner lining of the abdomen). I cut down into the fat. Another sixteenth of an inch.
“Bill,” said George, looking up at me, “this patient is big. There’s at least three inches of fat to get through before we even reach the fascia. At the rate you’re going, we won’t be into the abdomen for another four hours. For God’s sake, will you cut?”
I made up my mind not to be hesitant. I pressed down hard on the knife, and suddenly we were not only through the fat but through the fascia as well.
“Not that hard,” George shouted, grabbing my right wrist with his left hand while with his other hand he plunged a gauze pack into the wound to stop the bleeding. “Start clamping,” he told me.
The nurse handed us hemostats10 and we applied them to the numerous vessels I had so hastily opened. “All right,” George said, “start tying.”

10. hemostats (he′mə-stät′z’): clamppike surgical instruments used to pinch blood vessels and shut off bleeding.
I took the ligature material\textsuperscript{11} from the nurse and began to tie off the vessels. Or rather, I tried to tie off the vessels, because suddenly my knot-tying proficiency had melted away. The casual dexterity I had displayed on the bedpost a short hour ago was nowhere in evidence. My fingers, greasy with fat, simply would not perform. My ties slipped off the vessels, the sutures snapped in my fingers, at one point I even managed to tie the end of my rubber glove into the wound. It was, to put it bluntly, a performance in fumbling that would have made Robert Benchley\textsuperscript{12} blush.

At one point I even managed to tie the end of my rubber glove into the wound.

Here I must give my first paean\textsuperscript{13} of praise to George. His patience during the entire performance was nothing short of miraculous. The temptation to pick up the catgut and do the tying himself must have been strong. He could have tied off all the vessels in two minutes. It took me twenty.

Finally we were ready to proceed. “Now,” George directed, “split the muscle. But gently, please.”

I reverted to my earlier tack. Fiber by fiber I spread the muscle which was the last layer but one that kept us from the inside of the abdomen. Each time I separated the fibers and withdrew my clamp, the fibers rolled together again. After five minutes I was no nearer the appendix than I had been at the start.

George could stand it no longer. But he was apparently afraid to suggest I take a more aggressive approach, fearing I would stick the clamp into, or possibly through, the entire abdomen. Instead he suggested that he help me by spreading the muscle in one direction while I spread it in the other. I made my usual infinitesimal attack on the muscle. In one fell swoop George spread the rest.

“Very well done,” he complimented me. “Now let’s get in.”

We each took a clamp and picked up the tissue-paper-thin peritoneum. After two or three hesitant attacks with the scalpel I finally opened it. We were in the abdomen.

“How,” said George, “put your fingers in, feel the cecum [the portion of the bowel to which the appendix is attached] and bring it into the wound.”

I stuck my right hand into the abdomen. I felt around—but what was I feeling? I had no idea. It had always looked so simple when the senior resident did it. Open the abdomen, reach inside, pull up the appendix. Nothing to it. But apparently there was.

Everything felt the same to me. The small intestine, the large intestine, the cecum—how did one tell them apart without seeing them? I grabbed something and pulled it into the wound. Small intestine. No good. Put it back. I grabbed again. This time it was the sigmoid colon.\textsuperscript{14} Put it back. On my third try I had the small intestine again.

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\textsuperscript{11} ligature (lig'\-a-chôr') material: the thread used to make surgical stitches; it may be made of catgut or other material.

\textsuperscript{12} Robert Benchley: an American critic and humorist who made short films in which he played the role of a bumbling person.

\textsuperscript{13} paean (pe'an): a song of praise or thanks.

\textsuperscript{14} sigmoid colon (sig'moid' kô'lan): the part of the colon (which is a section of the large intestine) that is shaped like the letter s.
I stuck my right hand into the abdomen. I felt around—but what was I feeling? I had no idea.

"The appendix must be in an abnormal position," I said to George. "I can't seem to find it."
"Mind if I try?" he asked.
"Not at all," I answered. "I wish you would."
Two of his fingers disappeared into the wound. Five seconds later they emerged, cecum between them, with the appendix flopping from it.
"Stuck down a little," he said kindly. "That's probably why you didn't feel it. It's a hot one," he added. "Let's get at it."

The nurse handed me the hemostats, and one by one I applied them to the mesentery of the appendix—the veil of tissue in which the blood vessels run. With George holding the veil between his fingers I had no trouble; I took the ligatures and tied the vessels without a single error. My confidence was coming back.

"Now," George directed, "put in your purse string." (The cecum is a portion of the bowel which has the shape of half a hemisphere. The appendix projects from its surface like a finger. In an appendectomy the routine procedure is to tie the appendix at its base and cut it off a little beyond the tie. Then the remaining stump is inverted into the cecum and kept there by tying the purse-string stitch. This was the stitch I was now going to sew.)

It went horribly. The wall of the cecum is not very thick—perhaps one eighth of an inch. The suture must be placed deeply enough in the wall so that it won't cut through when tied, but not so deep as to pass all the way through the wall. My sutures were alternately too superficial or too deep, but eventually I got the job done.

"All right," said George, "let's get the appendix out of here. Tie off the base."
I did.

"Now cut off the appendix."
At least in this, the definitive act of the operation, I would be decisive. I took the knife and with one quick slash cut through the appendix—too close to the ligature.

"Oh oh, watch it," said George. "That tie is going to slip."
It did. The appendiceal stump lay there, open. I felt faint.

"Don't panic," said George. "We've still got the purse string. I'll push the stump in—you pull up the stitch and tie. That will take care of it."
I picked up the two ends of the suture and put in the first stitch. George shoved the open stump into the cecum. It disappeared as I snugged my tie. Beautiful.

"Two more knots," said George. "Just to be safe."
I tied the first knot and breathed a sigh of relief. The appendiceal stump remained out of sight. On the third knot—for the sake of security—I pulled a little tighter. The stitch broke; the open stump popped up; the cecum disappeared into the abdomen. I broke out in a cold sweat and my knees started to crumble.

Even George momentarily lost his composure. "Bill," he said, grasping desperately for the bowel, "what did you have to do that for?" The low point of the operation had been reached.

By the time we had retrieved the cecum, Mr. Polansky's peritoneal cavity had been contaminated. My self-confidence was shattered. And still George let me continue.

15. peritoneal (pər′tə-nē′əl) cavity had been contaminated: part of the inside of the abdomen had become infected.
True, he all but held my hand as we retired and resutured, but the instruments were in my hand. The closure\textsuperscript{16} was anticlimactic. Once I had the peritoneum sutured, things went reasonably smoothly. Two hours after we began, the operation was over. “Nice job,” George said, doing his best to sound sincere.

“Thanks,” I answered, lamely.

The scrub nurse laughed.

Mr. Polansky recovered, I am happy to report, though not without a long and complicated convalescence. His bowel refused to function normally for two weeks and he became enormously distended. He was referred to at our nightly conferences as “Dr. Nolen’s pregnant man.” Each time the reference was made, it elicited a shudder from me.

During his convalescence I spent every spare moment I could at Mr. Polansky’s bedside. My feelings of guilt and responsibility were overwhelming. If he had died I think I would have given up surgery for good.

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16. closure (\texttt{\textasciitilde klo\textasciitilde zhar}): the closing up of an opening; here, making sutures to close a surgical incision.

**LITERARY LINK**

_Surgeons must be very careful_  
**Emily Dickinson**

Surgeons must be very careful  
When they take the knife!  
Underneath their fine incisions  
Stirs the Culprit—Life!

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**William A. Nolen**

1928–1986

_Other Works_

_A Surgeon’s World_  
_Healing: A Doctor in Search of a Miracle_  
_A Surgeon’s Book of Hope_

**From Scalpel to Pen**

William A. Nolen gained national attention in the early 1970s after the publication of his book _The Making of a Surgeon_, from which “The First Appendectomy” is taken. In it he wrote frankly of his experiences as an intern and resident in the 1950s at Bellevue Hospital and of the tremendous pressures doctors work against. One reviewer felt the book was “remarkable for its wit and honesty.” Although he acknowledged that some doctors felt he had betrayed the profession, Nolen countered that he didn’t “see why there has to be so much mystery to medicine.”

**On the Other Side of the Knife**

Nolen became a general surgeon in Minnesota in 1960 and eventually wrote eight books, claiming that writing made him a better doctor by helping him understand the patient’s perspective. By 1975 he gained that perspective firsthand, when his own struggle with heart disease led to his having heart bypass surgery.

**Under the Knife**

In an article written for _Esquire_ magazine around that time, he wrote, “I . . . have high blood pressure. My father died at 58 of ‘heart trouble. . . . [T]he possibility of heart attack threatens my horizon.” Following further bypass surgery in 1986, Dr. Nolen died in Minneapolis, ironically at age 58.

**LaserLinks: Visual Vocabulary**

Historical Connection

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