In 1635, at the founding of Connecticut, there were no physicians in the state. The native Americans had their shamans, and the first colonists relied on their most educated men, the ministers of the churches. The era of the cleric-physician endured through colonial times. These individuals, with their degrees in divinity, their intellects, their libraries, and the respect of their followers, tended to the medical needs of their communities.1

Jared Eliot (1685-1763), the last of the cleric-physicians in Connecticut, was a multitalented man, with interests in botany, iron-making, and agriculture. Born in Guilford, Conn, he graduated from Yale College, Killingworth, Conn, in 1706. The college rector, Abraham Pierson, who was also the pastor of the church in Killingworth, recommended that Eliot succeed him as pastor. He served in that role, preaching every Sunday, from 1707 until his death in 1763, while also practicing medicine. He fulfilled requests for consultation throughout the state and in Newport, RI, and Boston, Mass.2

In 1739, he was the first of the Connecticut physicians to take on the issue of regulating medical practice. He chaired a meeting at New Haven aimed at forming a state medical society that would be granted the power to examine and approve individuals as qualified to practice medicine. The state legislature resisted this as a selfish proprietary move on the part of the physicians.

COLONIAL CONNECTICUT

Most medical philosophy at the time was the product of French influence. Bleeding, purging, and puking were “standard of care,” and the scarificator, the lancet, and the amputation knife made up a large part of the surgical armamentarium. Basically, the foundations of surgical practice were familiarity with anatomy, the courage to intervene in desperate situations, the resilience of the human organism, and prayer.

Of interest in this regard is the 1761 account of Joseph Perkins (1727-1794), of Norwich, Conn, describing surgery for an incarcerated umbilical hernia on his patient, Abiel Stark:

Immediate recourse to the operation for strangulated hernia was deemed indispensable; on exposing the intestine it was found phlegmated [gangrenous], and the case apparently hopeless. Under this impression Dr. P. resolved on the expedient of attempting to effect an artificial introsusception [intussusception]. This he accomplished by introducing the diseased part of the intestine into the sound [undiseased part], and finished the operation in the usual way. About the seventh day after the operation the patient evacuated the diseased part of the intestine, measuring eight inches, having small pieces of the mesentery attached to it. Mr. Stark enjoyed tolerable health for nine years after the operation and died of a palsy.3(pp421-422)

Among physicians in Connecticut, the belief persisted that medicine should be organized on a state level to have some control over the entry of “quacks” and charlatans into practice. Credit for approaching the issue of a colony-wide medical organization in earnest goes to the physicians of New London County, who first began meeting as a county society in 1763. Their efforts to obtain a charter for a state society from the Connecticut General Assembly were rebuffed. The same fate befell the physicians in Litchfield County and in New Haven County, both groups failing to convince the state legislature of its merit, even citing the example of New Jersey, where a state medical society was founded in 1766. It would be 1792 before the Connecticut State Medical Society was granted a charter by the state’s general assembly.
To increase credibility with the state legislature, and to enhance medical knowledge, the New Haven County Medical Society, in 1788, published the first volume of medical transactions in the United States, entitled *Cases and Observations*. It contained 26 case reports by 10 physicians. A couple of them are of interest to surgeons:

Ebenezer Beardsley (1746-1791), who served as a surgeon's mate in the American Revolution, described a patient with bowel obstruction, proven at autopsy to be from intussusception. His brother, Hezekiah Beardsley (1748-1790), succumbed, as did Ebenezer, to tuberculosis, both in their fifth decade of life. His report became a classic, because it was the first recorded US patient with hypertrophic pyloric stenosis. His clear and accurate description, albeit without the notation of a palpable tumor and visible peristalsis, led William Osler to republish the case in the *Archives of Pediatrics* in 1903. Beardsley had treated the patient in Southington, Conn, for 3 years, until her death at age 5 years. At autopsy, he found all the characteristic anatomy. Scattered cases were described in Europe during the next 100 years, until Hirschprung in 1888 introduced surgical treatment, posterior gastrojejunostomy. The patient survived and healed.6

**EARLY 19TH CENTURY, A MEDICAL SCHOOL IS FOUNDED**

In 1800, Mason Fitch Cogswell (1761-1830), of Hartford, was the most noted physician in central Connecticut, widely admired by patients and colleagues. He graduated from Yale College in 1780. He began his practice in Hartford in 1789, and by the turn of the century was acclaimed for his surgical skill, especially in extraction of cataracts and with amputations. In 1803, he was the first surgeon in the United States to ligate the carotid artery, in the course of removing a scarious tumor from the neck.

With his courage, skill, and dexterity, as well as his sizable library, Cogswell had many students of medicine apprenticed to him. When his daughter, Alice, was rendered deaf by an attack of spotted fever (meningitis) during an epidemic in 1806-1807, he sent Thomas Gallaudet to France to bring back the methods in practice there to educate the deaf. This led to the founding, in 1817, of the American Asylum at Hartford for Education and Instruction of Deaf and Dumb Persons, the first such institution in the United States.7,9

Also active at the turn of the 19th century was discussion about establishing a medical institution at Yale College. A committee in 1800 proposed the following:

That no candidate for the practice of Physic or Surgery in this State shall be admitted to examination until he shall have attained the age of twenty one, is of good reputation, and shall have had a Collegiate Education, and shall have studied at least two years with some respectable Physician or Surgeon; or if he has not had such preparatory education, shall have studied at least three years with such practitioner; and shall not be licensed to practice unless found qualified.6,10

Ten years later, in 1810, under the leadership of Yale President Timothy Dwight, an act of incorporation of the Medical Institution of Yale College was passed by the state legislature. There would be 4 professorships: Benjamin Silliman in chemistry, Eneas Munson in materia medica, Jonathan Knight in anatomy and physiology, and a professor of surgery and obstetrics. Cogswell was approached to fill the surgical chair, but he was reluctant to leave his situation in Hartford. He and others learned that Nathan Smith, the founder of the medical school at Dartmouth, Hanover, NH, in 1797, might be attracted to the new medical school in New Haven. Smith accepted and became the first professor of surgery at Yale, resigning his Dartmouth position in July 1813.

Although Smith was permitted by the Yale trustees to return to Dartmouth from time to time to lecture in surgery, and to help in the founding of the medical schools at Bowdoin, in Brunswick, Me, and at the University of Vermont, in Burlington, in the early 1820s, he remained a Yale professor of surgery from 1813 until his death in 1829, and is buried in the Grove Street Cemetery in New Haven. He was more than an inspiration and a medical role model to his many students. All 4 of his sons became physicians and 7 grandsons followed suit, as did 5 great-grandsons.10

About Smith, the surgeon who resides in the New England Surgical Society's (NESS) pantheon of heroes, we can learn from the eulogy by his surgical colleague, Jonathan Knight, who was later to occupy the chair of surgery at Yale:

His first object was to save his patients, if possible, from the necessity of an operation; and when this could no longer be avoided, to enter upon its performance, without reluctance or hesitation. In his operations, he was calm, collected and cautious.

He manifested no desire to gain the reputation of a rapid operator, a reputation, so ardently, and it is to be feared, so unfortunately sought for by many surgeons of the present day. He who commences an important operation with his eye upon the minute hand of a watch, starts in a race against time, in which the life of his patient is the stake, and often the forfeit. Neither did he make any display, in the course of his operations, to gain the applause of his bystanders. Hence there was no formidable array of instruments; no ostentatious preparation, so well calculated to excite the wonder of the ignorant, and to strike dread into the mind of the patient. Every thing necessary was prepared, while all useless parade was avoided.10,16,66

Smith's influence as a surgeon spread from northern New England, during his Dartmouth years, to Connecticut, Rhode Island, Massachusetts, and New York, during his Yale years. He performed lithotomy for bladder stones, amputations for compound fracture, extirpation of the breast for cancer, and trepanning for head injury, as well as surgery for hydrocele, reduction of fractures, groin hernia, cataract, and fistula in ano.

Amid all of this, he designed instruments to retrieve foreign bodies from the esophagus, splinting and
traction techniques for fractures, improvements in suturing materials and techniques, methods for removal of sequestra in osteomyelitis, surgical instruments to repair cleft lip and cleft palate, and other contributions to the surgical armamentarium of his day. It is appropriate that the NESS has established an award in the name of this all–New England surgeon.

THE FIRST HOSPITALS

In 1826, with New Haven's population at about 10000, a group of 10 men, including Smith, secured from the state legislature a charter for the General Hospital Society of Connecticut. As they viewed the city and its environs, especially its capacity to handle epidemics of smallpox and yellow fever, they saw the need for a hospital. Their efforts led to the opening in 1833 of a hospital, later known as New Haven Hospital, the first general acute-care hospital in Connecticut and the sixth in the nation.11

The next to be founded was Hartford Hospital, chartered in 1854 and opening its doors on August 1, 1860. When a national survey of hospitals was conducted in 1873, there were just these 2 general hospitals in Connecticut and 173 in the United States. Thirty-six years later, in 1909, a similar survey revealed 4359 hospitals nationally.

BEAUMONT AND WELLS

It is appropriate to briefly highlight the 19th-century contributions of a surgeon who was a Connecticut export. William Beaumont (1785-1853) was born in Lebanon, Conn, and at the age of 22 years, he left the family farm and settled in the region of Lake Champlain, where he found work as a schoolteacher. In his off-hours, he studied medicine as an apprentice. At the outbreak of the War of 1812, he applied for a medical position in the US Army. On June 6, 1822, at Fort Mackinac in the Michigan Territory, he was called to see a French Canadian fur trapper, Alexis St Martin, who had been seriously wounded in the left chest and upper abdomen by the accidental discharge of a musket. He described the wound:

The wound was received just under the left breast and supposed at the time to be mortal. A large portion of the side was blown off, the ribs fractured, and openings made into the cavities of the chest and abdomen through which protruded portions of the lung and stomach, much lacerated and burnt, exhibiting altogether an appalling and hopeless case. The diaphragm was lacerated and a perforation made directly into the cavity of the stomach through which food was escaping.12(ppix-x)

Miraculously, the patient survived, and Beaumont spent months of daily visits, dressing and debriding the wound and supporting him. He took St Martin into his home and devised a plug for the permanent gastric fistula wound and supporting him. He took St Martin into his home and devised a plug for the permanent gastric fistula so that the patient could retain his food. In 1825, Beaumont began performing experiments through the access afforded by the fistula and, in 1833, published Experiments and Observations on the Gastric Juice and the Physiology of Digestion,13 which was to prompt William Osler to later label him "the Pioneer American Physiologist."

If Connecticut can claim some credit for giving a start to Beaumont, then it should not be surprising that locals have spent more than 150 years lamenting the unhappy fate of the Hartford dentist Horace Wells (1815-1848). Wells studied dentistry as an apprentice in Boston and then opened his practice in Hartford in 1836. He was successful and attracted students, among them William T. G. Morton, with whom he later shared an office in Boston. In December 1844, while attending a "laughing gas" demonstration in Hartford, Wells observed that a young man who had just inhaled the gas injured his leg while jumping around but appeared to experience no pain.

After confirming this with the victim, Wells supposed that the gas, nitrous oxide, might be suitable to obliterate the pain of a tooth extraction. The next day, in his Hartford office, he had an associate extract one of his own teeth under the effect of the gas, and his hope for freedom from pain was realized. He was markedly disappointed when his effort to demonstrate the value of nitrous oxide at the Massachusetts General Hospital, in Boston, in early 1845 was marred by a groan from the patient during the procedure. When Morton, his former student and colleague, succeeded in proving the value of another gas, sulfuric ether, at the same site in October 1846, and especially when Morton tried to gain proprietary control of ether as an anesthetic, Wells was crushed. He was unable to continue his practice, became addicted to chloroform, and died a suicide in "The Tombs" (jail) in New York City in January 1848, at the age of 33 years.13

Following Morton's original "Ether Day" demonstration of 1846, the use of this general anesthetic quickly spread throughout the world. This was 20 years before Joseph Lister's first work with antisepsis, and 50 years before asepsis as a concept and as a surgical practice was universally adopted. Francis Moore, in his address before the Halsted Society in 1982, credited Edward Churchill with coining the phrase "the black period"14 of surgery for this era between the advent of painless surgery and the arrival later in the century of safe aseptic surgery. The era was black because of the gloomy prospects for success, and black because of the gangrenous aseptic surgery. The era was black because of the gloomy prospects for success, and black because of the gangrenous aseptic surgery. The era was black because of the gloomy prospects for success, and black because of the gangrenous aseptic surgery. The era was black because of the gloomy prospects for success, and black because of the gangrenous aseptic surgery.

CIVIL WAR

In a dimension beyond eschar and gloom, the blackest of the black period was the medical experience of soldiers and surgeons in the Civil War. With the leaders of both sides of the contest expecting hostilities to end in a few months, both armies were ill-prepared for the protracted and bloody 4-year war. If the armies were ill-prepared, the medical preparation for the handling of diseases and wounds was essentially nil. With total enlistments for the 2 armies estimated to have been about 3 million men, the death toll reached 617000, or 20%. Diseases, such as typhoid, malaria, acute and chronic diarrhea, and dysentery, caused twice as many deaths as battle wounds.14

The Union army had no military hospitals when the war started. Field hospitals were set up, but, in general, the sick and wounded who required more than immediate care were transported to civilian hospitals, preferably in their home states. In Connecticut, there were only 2, the General Hospital of Connecticut in New Haven, in operation since 1833, and Hartford Hospital, which...
had just opened a year before the war. Under a special
lease arrangement with the US War Department, the New
Haven hospital was converted totally to the care of mili-
tary personnel and was renamed the Knight Hospital in
honor of Jonathan Knight, professor of surgery at Yale.
During the war years, the Knight Hospital provided care
to 25,340 soldiers in a facility that, with the addition of
tents and temporary pavilions, reached a bed capacity of
1500. Hartford Hospital, although not taken over com-
pletely for the military, received compensation for each
soldier admitted, and this dollar flow may well have been
the economic salvation of the hospital in its infancy.

Some of the Connecticut physicians who served in the
war with the title of “surgeon” or “assistant-surgeon”
received experience that launched them into surgical ca-
reers. Two whose war experiences advanced their surgical
careers in Hartford were John O’Flaherty and Nathan
Mayer (1838-1912). They were among the 5 physicians
who approached Bishop Tierney in 1895 to help found a
second hospital in Hartford, which would be accessible
to the Catholic and Jewish physicians and their patients.
The outcome of their effort was the opening of St Francis
Hospital in 1897, in a building acquired from the Hartford
diocese through Bishop Tierney.

Mayer’s story is fascinating and reflects an extraor-
dinary man. Born the son of a rabbi in Bavaria, he came
to the United States (Hartford) at age 10 years. He gradu-
ated from Cincinnati Medical College, in Ohio, in 1837,
and spent nearly 3 years studying in Europe, including
Munich, Germany; Vienna, Austria; Prague, Czechoslo-
vakia; and Paris, France, where, at the outbreak of the
Civil War, he wrote of the 2 vehement camps of Ameri-
cans displaying their loyalties in public in that city. He
enlisted in the US Army, serving at South Mountain, An-
tietam, and Fredericksburg, Va.15 He contracted yellow
fever in 1864, which was fatal to 50% of his assistants. A
few excerpts from his vivid recollections capture the tenor
of the war and his literary flair (N. Mayer, unpublished
data, 1905):

At Fredericksburg I did my first operation. Seven miles away a picket in the woods had been shot by bushwhackers. . . . With an orderly to guide and carry my surgical knapsacks I went there, an ambulance following, as far as there was a road. The poor youth had a completely shattered arm and elbow. I operated on the spot [amputating] at the lower third of the humerus; the orderly as-
isted. I gave chloroform, got things ready and did as any of you
would have done. It was a fair operation, but the flaps proved too
short. I mounted the boy on my horse, the orderly carried his gun
and his and my belongings and we treaded the woods for a couple
of miles till we were able to reach the ambulance. All the interest
of this was heightened by the knowledge that other bushwhack-
ers might be around and pick us off during the work. The water
for the operation we brought from the Rappahannock, 2 miles
away, in several canteens. I heard later that in a Washington hos-
ital they took some more of the bone.

Describing the battle of Antietam, on September 17,
1863, where more than 2000 Union men died and 9400
were wounded, Mayer wrote:

All the wounded came in exalted in spirit, full of patriotic fire,
anxious for the battle, the defeat of the rebels, and complaining
hardly of their own injuries. . . . Whether the whiskey which
was given to a wounded man at once—and needed in the col-
lapse of serious gunshot wounds, contributed to this exalta-
tion, I know not. But I have still in my mind some badly wounded
boys that fiercely demanded the fate of the battle before they
cared about themselves, and the beautiful resignation with which
others awaited their certain death. This is not romance. I saw
it and it is realism.

Mayer was a writer and poet, always ready with a poeti-

c grace note for celebrations. He was the drama and mus-
critic for the Hartford Times for 40 years.

The ultimate Connecticut-Yankee surgeon of the mid-19th century, at least by heritage, was Dr Pinckney W. Ellsworth (1814-1896), of Hartford. His father was
governor; his grandfather, Oliver Ellsworth, was the third
chief justice of the United States; and his maternal grand-
father was Noah Webster. He graduated from Yale in 1836
and from the Columbia University College of Physi-
cians and Surgeons, New York City, in 1839. He then studied
in Europe. Armed with these credentials, he thrived as a surgeon. In his first 10 years, he performed 170 op-
erations, including amputations, arterial ligations, resec-
tions of tumors (breast and head and neck), burn con-
tractures, and cataract, and claimed to be the first in Con-
necticut to operate successfully for strabismus.

Dr Ellsworth delivered the address to the graduat-
ing class of the Medical Institution of Yale College in 1854,
which included the following sage advice on collegiality
among physicians:

A desire should always actuate you to consult the feelings of
your associates. Professional reputation is a delicate thing; it
may be marred by a breath. Never in counsel permit a patient
to feel that you distrust the judgment of his regular attendant;
and to avoid the necessity of this has arisen the practice, uni-
versally adopted, of consulting apart from the patient and his
friends.16 (p170)

ANTISEPSIS TO ASEPSIS

The years between the end of the Civil War and the turn of
the 20th century were the formative years for surgery
in America and in Connecticut. Lister’s work on anti-
sepsis and asepsis was brought to practical fruition, de-
spite the resistance of the nonbelievers, rendering sur-
gical intervention truly safe and ending the black period.
Lister introduced antiseptic surgery in the summer of
1867, illustrating its application particularly for com-
 pound fracture. But, it would be another 25 years before
American surgeons, including Connecticut surgeons,
would be united in acceptance of antisepsis, and, by then,
the concept had advanced to asepsis.

Why such resistance? First, American surgeons chose
to minimize the meticulous attention to cleanliness of
hands, instruments, and skin, which were essential elements
in Lister’s antisepsis. While Lister viewed Louis Pasteur’s work on a germ theory of infection to consti-
tute the scientific foundation for his practical approach
to surgery and wound care, the Americans were not yet
on board in accepting the germ theory.17,18

With the discoveries by Robert Koch of the an-
thrax bacillus in 1876 and the tubercle bacillus in 1882,
the validity of the germ theory became established. List-
er’s landmark work was acknowledged as the pivotal his-
tory turning point for surgery in the world. Even as the debate continued at the annual meetings of the American Surgical Association in the early 1880s, antisepsis was in, and asepsis was soon to follow.

In Connecticut, William H. Carmalt (1836-1929) assumed the chair of surgery at Yale in 1881. He had attended the College of Physicians and Surgeons and received his medical degree in 1861. He went to Europe for 4 years of study at the German-speaking medical centers. In 1876, he established a practice in ophthalmology in New Haven. His appointment as a lecturer at the Medical Institution of Yale College was the start of his 56 years as a key figure in the affairs of the school.

Beginning in 1884, his publications reflected his strong advocacy of Lister’s principles. As asepsis replaced antisepsis in the 1890s, and as surgery on the gastrointestinal tract began in earnest, he successfully resected a carcinoma of the cecum, using the suturing techniques described by William Halsted. Carmalt reported on 41 cases of appendicitis in 1894, including the first case of appendectomy for early acute appendicitis in Connecticut, performed by him in 1892.

Carmalt stepped down as professor at Yale in 1907, by which time he had accumulated many leadership honors, serving as president of the New Haven Hospital, New Haven County Medical Association, Connecticut State Medical Society, and American Surgical Association, as well as holding honorary membership in the NESS. A professorship of surgery at Yale was named in his honor in 1922.

THE GROWTH OF SURGERY AND HOSPITALS

By the 1890s, it was apparent that the rigorous requirements of asepsis in the surgical theater would demand more hospitals. With the arrival of tens of thousands of immigrants in Connecticut, many of them starting at the lower rungs of the socioeconomic ladder, and even among the well-to-do, surgery in a patient’s home would soon be an anachronism. In the larger cities and towns of Connecticut, physicians, surgeons, and town leaders engaged in public appeals for the building of hospitals in their communities. Often, these hospitals had their beginnings in large Victorian homes, donated by affluent families. Between 1884, when New Haven Hospital and Hartford Hospital were the only public hospitals in the state, and 1909, the following 20 institutions were opened in their respective towns:

- Bridgeport Hospital (1884)
- Danbury Hospital (1885)
- Waterbury Hospital (1890)
- Memorial Hospital–New London (1892)
- Meriden Hospital (1892)
- William W. Backus Hospital–Norwich (1893)
- Norwalk Hospital (1893)
- St Francis Hospital–Hartford (1893)
- Day Kimball Hospital–Putnam (1895)
- Stamford Hospital (1896)
- New Britain General Hospital (1898)
- The Home for Incurables (Crippled Children)–Newington (1898)
- St Vincent’s Hospital–Bridgeport (1903)
- Middlesex Hospital–Middletown (1904)
- Greenwich Hospital (1906)
- Hospital of Saint Raphael–New Haven (1908)
- St Joseph’s Hospital–Willimantic (1908)
- Sharon Hospital (1909)
- St Mary’s Hospital–Waterbury (1909)
- Griffin Hospital–Derby (1909)

Many of the earliest surgeons in these hospitals were general practitioners, whose practices evolved to a surgical emphasis, although they did not possess residency training in surgery as we know it. Harmon Howe’s report on laparotomy at Hartford Hospital for the year ending September 30, 1896, captures a glimpse of the spectrum of abdominal surgery in Connecticut hospitals at the turn of the century. There were 76 operations during the year, more than half for appendicitis. The others involved hernia, fecal fistula, tubercular peritonitis, sarcoma of the omentum, psoas abscess, ovarian cysts, hysterectomies, peritoneal adhesions, intestinal obstruction, and exploratory laparotomy. Overall, there were 15 deaths, for a mortality of 20%.

In the hospitals that opened at the time of the Spanish-American War, the wards were soon overflowing with ailing soldiers, for again there were not enough military hospital facilities to handle them. Most were ill, rather than injured, suffering from malaria, yellow fever, dysentery, and typhoid. An interesting vignette on this account is found in the centennial booklet of the New Britain General Hospital. In 1946, Jacob Fritz, aged 67 years, was admitted to the hospital as patient 151957. In 1898, as a 19-year-old soldier in the Spanish-American War, he had been admitted as patient 1 to this new hospital.

We find some fascinating surgical personalities among the founders of the hospitals. In the small town of Sharon, which provided a summer haven for many of New York’s prominent surgeons, Jerome Stuart Chaffee, a surgical veteran of the Spanish-American War, was the moving force behind the founding of Sharon Hospital in 1909. Chaffee was protective of staff privileges at the hospital, so as to discourage the vacationing New York surgeons from becoming itinerant operators there. But, in 1918, he was not above basking in some reflected glory for his hospital, by inviting the famed cancer surgeon, and seasonal Sharon resident, William Bradford Coley, to make a guest appearance at Sharon Hospital to perform a cancer operation.

VERDI, MURPHY, AND CUSHING

Another physician with a career of considerable achievement was William Verdi (1872-1957), of New Haven. If the old aphorism is correct, then the Hospital of Saint Raphael is the lengthened shadow of this one man. Born Guglielmo Francesco Verdi, in Italy, he came to New Haven at the age of 2 years. After graduating from Yale medical school in 1894, he spent a year abroad studying at the German centers, returning to New Haven to open a practice. It is clear that in New Haven at the time, as in Hartford, access to the city’s only hospital was not easy for the Catholic and Jewish physicians. These physicians, led by Verdi, and with the support of the Catholic Church and a group of dedicated nuns, established Saint

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Raphael’s, with groundbreaking in 1907. It was destined to become a strong center of excellence in education, clinical care, and clinical research.

Of Verdi, Sherwin Nuland wrote: “He was equally at home in all parts of the body; he was a thoracic surgeon, a neurosurgeon, and abdominal, urological, gynecologic and head and neck surgeon; it has been said that by the mid-1940s the only operation no one had ever seen him do was a tonsillectomy.” Without an undergraduate degree, like his distant New Haven predecessor Smith, he, too, was awarded an honorary master of arts degree by Yale, in 1914.

In the years before the outbreak of World War I, surgery for appendicitis dominated the general surgeon’s practice in Connecticut. Gastric resection was performed for cancer, but the complications of peptic ulcer disease were treated primarily with bypassing operations until the mid-1930s. The most frequently performed bypass procedure for peptic ulcer was the gastrojejunostomy, in its various configurations.

The Murphy button (1893) was used extensively by Connecticut surgeons early in the century for intestinal anastomosis and for gallbladder-to-intestine bypass of the biliary tract. It consisted of 2 circular metal rings, one was placed in each end of the open viscus, secured in place with a purse-string suture, and the 2 elements united, holding the serosal surfaces in apposition. With healing of the anastomosis, the entire button was passed. The current end-to-end circular stapling devices are designed on the same principle. The button was used by Connecticut surgeons until about 1935.

A comment on surgical education in the state might appropriately begin with another famous surgical import to Connecticut, Harvey Cushing. Cushing’s Connecticut connection began when he matriculated at Yale College with the class of 1891. He went to Harvard Medical School, in Boston, secured his medical degree in 1895, and served a year as “house pupil” (intern) at the Massachusetts General Hospital there. He then went to Baltimore, Md, as a resident in William S. Halsted’s seminal surgical residency at Johns Hopkins Hospital.

By the turn of the century, Cushing’s brilliance brought offers of professorships, which he turned down. Then, in 1906, with Carmalt at age 70 years, came a letter from President Arthur T. Hadley of Yale, inviting Cushing to come to New Haven to discuss the professorship in surgery. This was much more difficult to turn down, for he had cultivated many medical and nonmedical friendships in New Haven and had visited there many times since his graduation in 1891, but decline it he did.

The much-quoted statement in his letter of reply to Hadley served as a catalyst for change in the relationship between New Haven Hospital and the Medical Institution of Yale College:

So far as I could see during my brief visit, the one pressing need of the School is a hospital with a continuous service for those occupying the clinical Chairs. Without a hospital in which they have clinical and teaching privileges the year round, clinical professors are as destitute of opportunities for instruction and investigation as a chemist or a physicist would be without a laboratory. And without such a hospital, a medical school can hardly expect to develop.

Coexisting in some degree of town-gown tension, the medical school that had wooed him in 1906 and the hospital in which he might have been surgeon-in-chief had been founded and subsequently grown as separate entities, neither beholden to the other for faculty appointments or medical staff privileges. Progress quickened toward a formal agreement aligning New Haven Hospital with the medical school, which was consummated in 1913. The year 1917 marked the first time that a professor was named surgeon-in-chief of the hospital.

There were few formal surgical residency programs until the graduates of Halsted’s program established them. One of Halsted’s graduates, John W. Churchman, became a professor of surgery at Yale before World War I. And Joseph M. Flint, who had succeeded Carmalt, were Connecticut’s founding members of the NESS in 1916. The society brought together academic and community surgeons to explore the frontiers of surgery in scholarly, challenging, but congenial dialogue—a pursuit that has continued to the present day.

HARVEY AND OTTENHEIMER

When the American Board of Surgery was founded in Philadelphia, Pa, in 1937, many of Connecticut’s surgeons who satisfied the requirements in years of training and performance in practice became certified in the Founders Group. In 1947, as he stepped down from the Carmalt chair in surgery he had occupied since 1924, Samuel C. Harvey (1886-1953) gathered a small group to organize the Connecticut Society of American Board Surgeons. This statewide society, bringing together the best of the surgical practitioners and scholars, was the first of its kind in the country. Harvey set a tone. A Connecticut native, he had graduated from Yale medical school in 1911. He was a fellow in pathology at Columbia and then a surgical resident at the Brigham and Women’s Hospital, in Boston. After service in France during World War I, he returned to complete his training at Yale. He joined the faculty in 1920, rising to the chair 4 years later. He was one of the first to recognize the special needs of cancer patients, establishing an oncology section in the Yale medical-surgical faculty. With Sam Harvey’s retirement, Gustaf E. Lindskog became professor and chair of surgery, and he, too, was responsible for launching the surgical careers of many in this society.

The first president of the Connecticut Society of American Board Surgeons, in 1948, was the beloved Edward J. Ottenheimer (1898-1963), of Willimantic. Another Connecticut native, Ottenheimer received his medical degree at the University of Virginia, Charlottesville. He established a surgical practice and within 3 years was chief of surgery at St Joseph’s Hospital. When St Joseph’s was closed, with the building of Windham Community Hospital in 1933, Ottenheimer became chief of surgery there, a position he held until his retirement in 1961.

His relentless pursuit of surgical excellence, his unselfish character, and his kind outgoing personality brought him legions of friends and many honors. His lasting legacy was the recruitment into practice with him of outstanding young surgeons, such as James Major and William Whalen. This legacy of leader-nurturing leader, and surgeon-nurturing surgeon, was written in life by
many surgeons in cities and towns of Connecticut throughout the 20th century: Bill Weadon in Bridgeport, Bliss Clark in New Britain, Bill German in New Haven, Albert Hermann in Waterbury, Bill Stahl in Danbury, and Phil McLellan in Hartford, all born at about the turn of the century. All are credited with building excellence in the surgical staffs of their hospitals. In Putnam, Seldon B. Overlock (1860-1934) devoted his professional life to the development of the Day Kimball Hospital and to the acquisition of capable surgeons for its staff. He was the first Connecticut surgeon to hold office in the NESS, as vice president in 1922.

CONNECTICUT PRESIDENTS OF NESS

In 1931, the first Connecticut president of the NESS was elected. Alfred M. Rowley (1874-1941), of Hartford, had earned his medical degree from the University of Vermont. Joining the staff of Hartford Hospital in 1900, he played a pivotal role in charting the course of the department of surgery there. He established the first surgical journal club in 1920. He was chief surgeon with the Yale Mobile Unit in France during World War I and was cited for meritorious service by General John Pershing. Not to be outdone, his wife, Carlotta Munoz Rowley, a nurse anesthetist, was awarded the Croix de Guerre with palm.

The next Connecticut presidency was in 1936. Daniel C. Patterson (1882-1946), of Bridgeport, was born in Canada and graduated from the University of Maryland, Baltimore, in 1906. He was a founding member of the American Association for the Surgery of Trauma.

Then, in 1945, came President James Raglan Miller (1886-1971), of Hartford. Miller was, in his day, the premier gynecologic surgeon in central Connecticut. He had obtained his medical degree at Johns Hopkins, under the tutelage of 3 of the “4 Physicians,” Halsted, William Welch, and, especially, Howard Kelly. He trained there and abroad in the German centers.

At this time, general surgery in the state was still centered around appendicitis, ulcer disease, and cancer of the bowel and breast. In thyroid surgery, the era of the large multinodular goiter was fading. More than two thirds of bowel and breast. In thyroid surgery, the era of the large multinodular goiter was fading. More than two thirds of the thyroid operations were performed for hyperthyroidism—without benefit of the thiourea drugs or the thyroid operations were performed for hyperthyroid-multinodular goiter was fading. More than two thirds of bowel and breast. In thyroid surgery, the era of the large multinodular goiter was fading. More than two thirds of bowel and breast.

The postwar presidents of the NESS from Connecticut began with Ashley Oughton (1895-1956), in 1954. He had trained under Cushing at Brigham and Women’s Hospital and served at Bellevue Hospital (New York City) before joining the surgical faculty at Yale. His surgical work and scholarly interests were in vascular surgery and cancer. “Scotty,” as he was called, served in the Pacific theater during World War II under General Douglas MacArthur. He chaired the Manhattan Project (New York City) division that studied the medical aspects of the atomic bomb casualties, from which a landmark volume was published in 1956. He died tragically in an airplane crash in Colombia, while on a mission sponsored by the Rockefeller Foundation.

In 1960, Welles A. Standish (1899-1998), of Hartford, served as NESS president. He began his postgraduate training in internal medicine at Yale, before embarking on a surgical residency at Barnes Hospital in St Louis, Mo. He led the surgical staff at Hartford Hospital for many years. He was calm, dignified, and superbly efficient in surgical dissection, making the difficult look easy, and was a most reassuring communicator with patients and surgeons in training.

In 1965, Francis A. Sutherland (1902- ), of Torrington, was president. He graduated from Harvard Medical School in 1926 and trained in surgery in New York City. Sutherland was chief of surgery at Charlotte Hungerford Hospital, Torrington, Conn, for 15 years.

The NESS president in 1968 was Mark A. Hayes (1914-1999), of New Haven, who was a distinguished general surgeon on the Yale faculty for nearly 30 years. He was always sought out to take on the difficult cases, because of his command of surgical anatomy and his interest in surgical physiology and metabolism.

In 1980, John F. Reed (1914-1992), of Hartford, served as president. He spent the first and last years of his life hard by the Atlantic Ocean in Rockport, Mass. He had been a scholar-athlete at Bowdoin College and graduated from Cornell University medical school, New York City, in 1941. After service in the US Navy during World War II, he became the first resident in the newly established surgical training program at Hartford Hospital. Reed’s kindliness, his sense of humor, his unselfish support of residents and patients, and his innate diagnostic ability endeared him to all.

In 1984, William W. L. Glenn (1914- ), of New Haven, was named president of the society. He is the revered elder statesman of the Connecticut membership to the NESS. A graduate of Jefferson Medical College, Philadelphia, Pa, he came to Yale in 1948 under the new chair, Lindskog, to lead the division of cardiothoracic surgery, then in its infancy. Within a year, he was engaged in the earliest experiments on the mechanical support of the circulation with William Sewell’s pump. He is a gifted educator and researcher, with contributions to the surgical armamentarium on radio frequency pacing of the heart and the diaphragm, applications of skeletal muscle conditioning to augment myocardial function, and many other innovations.

In Hartford, during the same postwar era, 2 surgeons from humble beginnings displayed prodigious surgical skills at their career peaks at Hartford Hospital. Both had the honor of serving as vice president of the NESS. Ludwig “Joe” Pytrek (1913-1989) was a scholar-athlete at Dartmouth and received his medical degree at Rush
Medical College, Chicago, Ill. After training with Richard Cattell and Frank Lahey, he returned to his home city to become the exemplar of excellence and the talk of the hospital for his indomitable capacity for surgical “work,” especially in the areas of thyroid, parathyroid, and biliary tract surgery. Nestor “Bill” Wawro (1914-1978) was trained at Yale-New Haven Hospital and at Memorial Hospital in New York City. Combining this latter experience with his gifts as a surgical anatomist, he became the first surgical oncologist in Hartford, operating with courage and skill and teaching the care of patients with cancer to a generation of surgical residents.

The panorama of the history of medicine and surgery in Connecticut would not be complete without focusing on the founding of the state’s second medical school and the 2 presidents of the NESS whose careers combined to give that institution its surgical identity.

## A SECOND MEDICAL SCHOOL FOR CONNECTICUT

It was in 1944 that Governor Raymond E. Baldwin first proposed the founding of a medical school under the auspices of the state university. In 1945, a committee of physicians in Hartford County studied the issue but concluded that there was “no convincing evidence that the establishment of a second medical school is advisable at this time.” This was despite the fact that, while 100 physicians were educated in the state each year, 300 were entering practice. By 1961, the Connecticut General Assembly had been convinced and passed Special Act 328, authorizing a bond issue to establish the University of Connecticut medical and dental schools. After much vying for position by the 2 major hospitals in Hartford, and much political infighting, the site in Farmington was selected. The first class of medical students was admitted in 1968, graduating in 1972, the year of the opening of the John Dempsey Hospital, in Farmington.

James Foster, NESS president in 1989, left his directorship of surgery at Hartford Hospital in 1978 to become the third professor and chair at the University of Connecticut. He had trained at Barnes Hospital and worked under another famed surgeon-humanitarian, J. Englebert Dunphy, in Portland, Ore, before coming to Hartford as the first full-time chief of surgery in 1966. He, like Cushing at the turn of the century, saw the importance of a strong clinical base for the surgical educator and fought for a strong relationship between Hartford Hospital and the new medical school.

Jim Foster was succeeded in the position at Hartford Hospital, and later at the university, by Peter Deckers, who came to Hartford at the peak of his career as a surgical oncologist and a dynamic, inspiring surgical educator. It was he who led the coalescence of the 3 surgical training programs in greater Hartford into a single residency under the aegis of the University of Connecticut School of Medicine in 1992. He, too, was rewarded with the presidency of the NESS, in 1999.

These are surgeons of Connecticut. Without doubt, many have been left out who contributed greatly to the founding and growth of the state’s hospitals, and to the excellent care of so many surgical patients, as well as to the distinguished history of the NESS. Their omission from this 300-year tour is without prejudice and does not diminish in the slightest their contributions.

I acknowledge, with thanks, the patient assistance of Lois Eves of the Connecticut Surgical Group, PC, Hartford, in the preparation of the manuscript. The cooperation of the community relations staffs of all of Connecticut’s hospitals in forwarding histories of their respective institutions is also gratefully acknowledged.


Corresponding author: H. David Crombie, MD, Connecticut Surgical Group, PC, 85 Seymour St, Suite 503, Hartford, CT 06106.

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