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Surgical History

Alton Ochsner, MD (1896–1981): Surgical Pioneer and Legacy Linking Smoking and Disease

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Edward William Alton Ochsner kept a plain, metal card file in which he recorded close to 50 years worth of medical experiences, research, and insights. The most populated topics were filed as “Cancer, Lung” and “Cancer, Bronchogenic.” These reflected his areas of greatest interest, for which he would go on to produce groundbreaking work. Of his many lifetime accomplishments, he is perhaps best known for being the first to report a link between cigarette smoking and lung cancer. This was just one of the many ways in which Ochsner worked to effect social change. The establishment of the Ochsner Health System in New Orleans was born from this similar passion. Ochsner went on to become one of the giants of his generation as a result of this tireless work as a leader, educator, and mentor.

Born on May 4, 1896 in a modest home at Kimball, South Dakota, Ochsner (Fig. 1) was the only son of seven children. An intelligent young man with both poise and discipline, he paved his own path of success. Ochsner excelled in academics from an early age. He graduated from the University of South Dakota in 1918 and subsequently pursued a career in medicine. At that time, his cousin, Albert John Ochsner (AJ Ochsner hereafter) was a prominent Chicago surgeon who strongly influenced Alton Ochsner’s medical course and surgical training. His cousin recommended that Ochsner matriculate at the Washington University School of Medicine in St. Louis. Heeding his cousin’s advice, Ochsner received his MD degree in 1920, followed by one year of training in internal medicine at the Barnes Hospital.

Ochsner then began his surgical residency training under his cousin, AJ Ochsner, who played a large role in shaping his mentee’s work ethic and professional life as a young surgeon. During his surgical training, AJ Ochsner arranged for Alton to spend time in Europe receiving arguably the world’s most advanced surgical training under the tutorship of Professor Paul Clairmont in Zurich and Professor Victor Schmieden in Frankfurt. During his time there, Ochsner introduced to his European colleagues the concept of blood transfusions and widely became a resource to others learning in Europe. It was during these two years that Ochsner met and married Isabel Kathryn Lockwood. Together they had four children, three of which were sons who grew up to be surgeons as their father.

Ochsner’s deep interest in education and research brought him to the University of Wisconsin in 1926, where he became a member of the faculty. Ochsner was just 30-years old when an extraordinary professional opportunity presented itself. The renowned and idolized chairman of surgery at Tulane University School of Medicine, Rudolph Matas, was readying for retirement. At that time, the leadership at Tulane advocated appointing a new chair from outside their network who could dedicate all their time to the department. In a controversial and unprecedented turn of events, Alton Ochsner at the young age of 31 was offered the position as chairman of the Department of Surgery at Tulane School of Medicine. Ochsner accepted this position and went on to establish a premier academic surgical training program at New Orlean’s Charity Hospital from which he built his lasting legacy.

As chairman, Ochsner founded his surgical department based on both teaching and research that focused on the education of residents and medical students alike. It was in the amphitheater of Charity Hospital that Ochsner’s famous “bull pen” took place. This event consisted of the intense cross-examination of a fourth year medical student on making and defending a particular diagnosis while hundreds of students and faculty watched. Ochsner’s idea was to induce psychological stress and force students to perform well under these circumstances, as he felt it was an inevitable part of the medical profession and was a necessary skill as a physician.
In the 1930s, while at Tulane University, Ochsner invited student Michael DeBakey to work in his laboratory. This began a lasting mentored friendship. Ochsner encouraged DeBakey to pursue a surgical career after noting his student’s intellect, technical skills, and ingenuity. Dr. DeBakey even served as a babysitter for Ochsner’s four children.1

It was in 1936 that Ochsner and DeBakey debuted their seminal work. They were the first to speculate about a causal relationship between tobacco and lung cancer.3 In 1939, in a paper published in Surgery, Gynecology and Obstetrics, entitled “Primary Pulmonary Malignancy”, he and Dr. Michael DeBakey reported their findings.

In our opinion the increase in smoking with the universal custom of inhaling is probably a responsible factor, as the inhaled smoke, constantly repeated over a long period of time, undoubtedly is a source of chronic irritation to the bronchial mucosa.

As the first to document the link between cancer and tobacco, Ochsner was a pioneer in the war against smoking throughout the remainder of his career, working tirelessly to expose what he believed to be the health hazards of tobacco.5 He was criticized by his peers for this controversial idea but decades later it would prove to be one of his greatest contributions.1 DeBakey and Ochsner remained extremely close throughout the remainder of their careers. DeBakey went on to train the next generation of surgeons, including Ochsner’s sons, and create his own legacy as one of the premier surgeons of his time.1
One of Ochsner’s most lasting legacies today is the Ochsner Clinic in New Orleans. Ochsner outlined his vision for the new hospital model to a patient’s husband who so happened to be the chairman of the board of Hibernia National Bank. His vision was to found a private institution where patients could receive high-quality care concentrated in a single center—a new system for delivering health care in the Gulf South that he could not achieve within the academic setting. The vision was so clear that Ochsner and his colleagues, Guy Alvin Caldwell, Edgar Burns, Francis E LeJeune, and Curtis Tyrone were loaned the funds from the bank to found the Ochsner Clinic on January 2, 1942.

Due to Ochsner’s leadership within the partnership, the hospital was given his namesake. This was the flagship of the Ochsner Health System that is well known today. Decades later, his presence in New Orleans is still unmatched as the Ochsner Health Care system has evolved into the largest private not-for-profit healthcare system in the region, encompassing eight hospitals and more than 38 neighborhood health centers.

In his lifetime Ochsner held many leadership positions, including serving as the president of the American Cancer Society and the American College of Surgeons. His legacy that remains is one of not only just an educator and innovative surgeon but also a humanist. He received the Distinguished Service Award of the American Medical Association for exceptional contributions to medicine in 1967. In his 1952 presidential address to the American College of Surgeons, he said:

> While working for the ‘benefit of humanity,’ let us not forget that our work is also for the ‘benefit of the patients,’ the individual men and women who seek us out in their hours of trial and who need compassion and understanding as well as scientific care.

Through the decades, Ochsner documented various surgical milestones in the course of his career, served on 13 editorial boards, published six books and contributed to 24 more, and published over 500 manuscripts. He predicted the course of surgical teaching and the multi-disciplinary practice of health care in his publications. He contributed to the evolution of specialization by pioneering surgical approaches to carcinoma of the lung and esophagus, mediastinal tumors, and peripheral vascular disease. These techniques provided groundwork for the creation of the subfields of thoracic and vascular surgery. He predicted surgical specialization to be the course of medicine such that group practice would prove to be invaluable.

Retiring at the age of 70 as required by clinic rules, Ochsner performed seven operations on his last day as a clinic surgeon. Ochsner made extraordinary contributions to surgery and the field of medicine as a whole. However, he frequently said that he would like to be remembered most for his work as an educator and mentor. He died in 1981 at the age of 85.

REFERENCES