

Those advances have helped to construct a more ideal prostheses, ensuring that these fixed and removable prosthesis are managed so as to preserve the integrity of all remaining teeth and soft and hard tissue of the oral facial structure.

The History of Prosthodontics and Maxillofacial Prosthesis in Lancaster County

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I was asked to write a short summary of the history of the specialty of Prosthodontics in Lancaster County. Let me begin by outlining my training and involvement in Lancaster.

My director, Dr. H.K. Cooper, Sr., always said that he was the only Orthodontist from Philadelphia to Pittsburgh for many years. I can say that I was, for many years, the only fully certified Prosthodontist from Philadelphia to Pittsburgh.

A brief history of my education, coming to Lancaster to complete my specialty training, and of the sponsorship of the University of Pennsylvania at the Lancaster Cleft Palate Clinic.

I was accepted as a graduate student by the Graduate School of Medicine of the University of Pennsylvania in 1950. I graduated in June, 1949 from Tehran, Iran's Medical School with a degree of MDD. Being the first in my class, I was given a scholarship to come to the USA for further training in maxillofacial surgery. I arrived in the USA in December, 1949. I studied English at the school funded by the US State Department in Washington, D.C. In August, 1950 I left Washington, D.C. for Philadelphia to attend the University of Pennsylvania. It was founded for the purpose of training physicians who had completed their medical training in the USA or abroad. The curriculum of this training involved the advanced study of all basic sciences of medicine and some hospital training.

After two years of intensive study, I was assigned to finish my training and continue my research in maxillofacial malformations at the Lancaster Cleft Palate Clinic under the directorship of Dr. H.K. Cooper, Sr. and Robert S. Ivy, a chief of plastic surgery at the University of Pennsylvania.

In 1954, I completed my residency program at the Lancaster Cleft Palate Clinic and submitted my thesis on the "effect of parental aging in giving birth to a child with oral facial malformations." My thesis was approved and I received a Master's of Science degree in 1954 from the University of Pennsylvania. After completion of my graduate training, I decided to enroll in the undergraduate training in dentistry. After two years of study, I received my DDS degree from the same university.

After graduation, I was called upon to fulfill my military obligation. After several months of waiting in Washington, D.C., the Korean War was at its final phases. I was told that there was no need for my military obligation. I was dismissed and given completion for my military service without enrolling.

In November, 1956, I received a phone call from Dr. H.K. Cooper, Sr. that the Lancaster Cleft Palate Clinic had received a grant from NIDR in the treatment of patients with cleft palates. Dr. Cooper asked me if I would be interested in returning to the Clinic to direct this project. I accepted this offer and started my employment at the Lancaster Cleft Palate Clinic in March, 1957. This research project was completed in 1959. Dr. David Coursin, Dr. Robert Millard, and I decided to submit a grant proposal to NIH for "multidisciplinary management of cleft palate patients with long-term follow up." This multimillion dollar grant was approved. We began our research in 1960, and it continued for almost 20 years. Our longitudinal research on the effects of surgery, oral facial growth, and patient behavior is the best in the world. We have published several books and many scientific articles as a result of our research efforts. Dr. David Coursin, a pediatrician in Lancaster, was the initial research director. After his leaving, Dr. W. Krogman was appointed to direct the research project.

My position as Director of the Medical and Dental Services at the Lancaster Cleft Palate Clinic continued for 53 years. Over the years, the Clinic has gone through lots of changes and directorships. We are presently part of Lancaster General Hospital and affiliated with Hershey

Medical Center and several other health institutions.

Funded by NIH, we have had 20 years of graduate training in conjunction with the University of Pennsylvania in cleft lip and palate and other oral facial malformations. Many outstanding individuals graduated from our program and have received PhDs from the University of Pennsylvania for their work. For over 30 years, our approved ADA residency program continued and we have graduated many outstanding dentists from this program.

Presently the Clinic is greatly benefiting from the directorship of Dr. Ross E. Long, Jr., grandson of our founder, Dr. H.K. Cooper, Sr. I finally retired from the Lancaster Cleft Palate Clinic in March, 2010. Over years the Clinic has given me great opportunities to write books. I wrote over 100 scientific articles and have presented over 400 scientific papers before medical, surgical, dental, speech and hearing associations. I am presently a consultant to several institutions and colleges. I have received numerous awards for my research and clinical efforts in the management of patients with oral facial malformations. In my professional career, I have had the opportunity to chair in some of the various associated committees, have been the president of several associations, and am currently the Professor of Surgery at Pennsylvania State University's Hershey Medical Center.

The First Orthodontist in Lancaster County

Honors Award Presented to Herbert K. Cooper, D.D.S, D.Sc, L.H.D., F.A.C.D.

The first Honors Award of this Association was granted to Robert H. Ivy, M.D., D.D.S., Sc.D., Professor Emeritus of the University of Pennsylvania on May 10, 1963, in Washington, D.C. It is significant that the recipient of our second award is Dr. Ivy's friend and colleague of long standing. Dr. Herbert Cooper, a representative of the dental profession, has been a pioneer and champion of the group or team effort in the management of oro-facial and communicative disorders, a basic philosophy essential to the existence of the American Cleft Palate Association.

Herbert Kurtz Cooper was born on January 2, 1897, in Brownstown, Pennsylvania, a predominantly Pennsylvania Dutch settlement. He attended the West Earl High School, the Franklin and Marshall Academy, and the Franklin and Marshall College. He enrolled in the dental school of the University of Pennsylvania and was awarded his degree in 1919. In 1925, he graduated from the Dewey School of Orthodontia. Dr. Cooper then established his practice in Lancaster, Pennsylvania, which was a stop on the old Conestoga Wagon Trail from Philadelphia to Pittsburgh.

On November 30, 1930, Dr. Herbert Cooper was appointed consultant to the Pennsylvania State Hospital for Crippled Children at Elizabethtown, Pennsylvania. This Lancaster County hospital is oriented in orthopedics surgery and serves as part of the graduate training program in orthopedics of the Jefferson Medical College of Philadelphia, Pennsylvania. This appointment served as the beginning of a prodigious task composing a man and his life's work with all the frustrations of a new philosophy. In 1930, he asked the question "Why can't the treatment of maxillo-facial deformities be carried out as any other branch of orthopedics?" He then postulated that there is a field of endeavor existing that may be identified as dento-facial orthopedics, more recently referred to as maxillary orthopedics. The treatment of the oro-facial deformities and communicative disorders was at the time a matter of individual specialty practiced by the surgeon, the dentist, and the speech therapist, each working quite independently. Dr. Cooper believed that an integrated team approach in the management of these handicapped individuals might lead to an efficient use of the skills of the disciplines interested in these patients. Many of these handicapped individuals could not, or would not avail themselves of the long, expensive programs in habilitation carried out by the specialists working independently.

In 1936, while examining school children at the request of Genevieve Diller, a speech therapist in the Lancaster City schools, Dr. Cooper found two patients with untreated clefts of the palate. In order to offer some service to these patients, he sought help by communicating with and visiting Dr. Jack Fitzgibbons of Holyoke, Massachusetts. These two patients, and other children, with facial deformities requiring dental attention, together with a multi-disciplinary philosophy already founded, led to the establishment in 1938 of the first integrated

clinic in Lancaster, Pennsylvania. The personnel in that first clinic consisted of Dr. Cooper, Genevieve Diller, M.Ed., a speech therapist, and Pete Gross, a laboratory technician. Harold Westlake, Ph.D, then with the Pennsylvania Department of Health, attended the Clinic once a week to assist in the speech program. Within a short time, Paul Bomberger, D.D.S., assisted the group by taking care of the patient's general dental needs. The Clinic continued to grow and S. June Smith, D.Ed., psychologist, was then added to the team. The late George Dorrance, M.D., visited the Clinic and offered some assistance in the surgical program. Most of the needs in reparative surgery were eventually satisfied by Drs. Ivy and Curtis. In 1942, and for four years after thereafter, the Lancaster Rotary Club sponsored the Clinic as a Club project. In 1946, the Clinic became incorporated with Dr. Herbert Cooper as founder and director. He had thus created one of the first integrated centers for the treatment of oro-facial deformities and combative disorders in the United States. This philosophy has since permeated Pennsylvania and the nation. Dr. Robert H. Ivy, a pioneer in plastic surgery, has so stated and credited Dr. Cooper in his 1961 article on 'Plan for the Care of Children with Cleft Lip and Palate'.

After the integration of these interested specialists, it soon became evident that there was not always unanimity of opinion. The question Dr. Cooper then raised was "Who is to agree, if doctors disagree?" The answer seemed to be in part, at least, in research. Believing research to be complementary to the clinical effort, Dr. Cooper purchased the first Phillips Image Intensifier five-inch tube. Manufacturers' Serial No. 1. This was the origin of the research and development of the cine-radiographic equipment for use as a guide in the treatment of cleft palate patients. Today, the use of diagnostic x-ray equipment is widespread among the professions. It might also be noted that Dr. Cooper developed one of the first practical electronic speech aids for laryngectomized patients, and this served as a stimulus for the development of other devices to aid these individuals.

Dr. Cooper's determined effort and dedication to a philosophy has finally brought together a cooperative effort of the staff of the Lancaster Cleft Palate Clinic, the Department of Biology of the Franklin and Marshall College, Biometricians in the Department of Mathematics of Millersville State College, and the Research Center at St. Joseph Hospital in Lancaster, all dedicated to research and service in the field of oro-facial deformities and communicative disorders. Only an individual with dedication to a purpose could fulfill such a goal. His pioneering efforts in establishing the multi-disciplinary approach to cleft palate habilitation has been an influence throughout the country as evidenced by the numerous group clinics in the United States dedicated to this purpose. We here today subscribe to and foster that philosophy.

Dr. Cooper is a Diplomate of the American Board of Orthodontics, a member of the American Cleft Palate Association, The American College of Dentists, the International College of Dentists, the New York Academy of Dentistry, the American Academy of Dental Medicine and other national and local dental societies.

In 1950, he was granted the Benjamin Rush Award of the Pennsylvania Medical Society and the Alumni Award of Merit of the University of Pennsylvania. The following year, the Elks Club cited him for 'Meritorious Service to the Community,' and in 1954, he was honored at Elizabethtown College for 'Outstanding Achievement and Service to Mankind'. In 1956, he was granted the Henry Spenadel Award by the First District Dental Society of New York, another award by Sertoma International and one by B'Nai B'rith for meritorious service. He holds the Honorary Doctor of Science Degree from Franklin and Marshall College (1950) and the University of Pennsylvania (1953), and a Doctor of Human Letters from Moravian College (1955). All of these Honors are in recognition of his service to man, particularly handicapped individuals.

Although no longer engaged in clinical practice, he holds the title of Professor of Cleft Palate Therapy at the University of Pennsylvania, Founder and Director of the Lancaster Cleft Palate Clinic, Director of the Dental Department of the Milton Hershey School, Hershey, Pennsylvania, and a member of the Advisory Board of the Department of Health of the Commonwealth of Pennsylvania. He is the Chief Dental Consultant to the Department of Medicine and Surgery, U.S. Veterans Administration in Washington, a Dental Consultant to Valley Forge Army Hospital, Phoenixville, Pennsylvania, and Walter Reed Army Hospital, Washington D.C., as well as a lecturer to Walter Reed Army Institute of Research, Division of Dentistry.

He is a member of the staff of the Lancaster General Hospital, a member of the Board of Directors of the Pennsylvania Society for Crippled Children and Adults, and the present State Chairman of their Easter Seal appeal. He is Chairman of the Board of Linden Hall

Seminary, and a member of the Council on Dental Health of the American Dental Association. All of these represent distinguished appointments.

Dr. Cooper's determination of purpose might be illustrated with a personal note. A number of years ago, while attending a dance in the Maple Grove Ballroom in Lancaster County, his attention was directed towards a tall and stately blond. He did not know her name but confided to a friend that that was the girl he was going to marry. Later that evening, he met the young lady and to her surprise, made the same remark. On June 2, 1920, that same blond, Mercedes Miller, became Mrs. Herbert K. Cooper. Without her assistance, he could not have fulfilled his dreams. During their marriage, she had to witness the sale of their farm and their collection of horses and surrey to help finance the Clinic which Dr. Cooper had established. The Coopers have three children, of which one son is a physician, one a dentist and a daughter married to a dentist.

Dr. Cooper, on behalf of the American Cleft Palate Associate, it gives me great pleasure to present this Honors Award, in recognition of your many contributions to cleft palate patients and your dedication to a philosophy that is essential to the existence of this Association.

Lancaster Cleft Palate Clinic's Mission and History

The Lancaster Cleft Palate Clinic is a not-for-profit organization dedicated to improving the quality of life of infants, children and adults with craniofacial conditions resulting from birth defects, trauma and disease.

Established in 1938, the nonprofit Lancaster Cleft Palate Clinic is the oldest clinic in the world devoted to the comprehensive care of children born with cleft lips and palates and other craniofacial anomalies regardless of their ability to pay. It was founded by the orthodontist Dr. Herbert K. Cooper on the first floor of his home at 24 North Lime Street. At the time the Clinic offered out of town cleft patients a 6 weeks residency program. Several cleft patients stayed in apartments, supervised by a house mother, and received speech therapy, prosthesis fabrication, and social education.

For 75 years we have provided for the special healthcare needs of Pennsylvania's infants and children who may be uninsured, under-insured or otherwise under served. Today, we are the only facility in the United States to offer comprehensive cleft care outside the auspices of a major hospital system.

Lancaster Cleft Palate Clinic Today

Our signature multidisciplinary, single-facility approach-the first of its kind, was conceived by Dr. Cooper, who was the grandfather of our current Executive Director, Dr. Ross F. Long Jr. It brings all of our specialists-plastic surgeon, orthodontist, pediatrician, otolaryngologist, maxillofacial prosthodontist, speech therapist, audiologist, feeding specialist, psychologist, and social worker, among others- together to see each patient on the same day and collectively discuss their care both chair-side and in team conference settings.

We also provide educational observation and participatory experience in each of these specialties to medical and dental students, as well as to residents and visiting medical and dental professionals who are interested in learning more about cleft and craniofacial care.

While the largest proportion our patients comes from within the state of Pennsylvania, patients in need come from all across the U.S. and around the world seeking our services. Our current patient pool includes patients from twenty-five different states and a half a dozen foreign countries. We are currently treating more than two thousand patients with cleft lip and palate and other acquired anomalies and an additional three thousand patients receiving more limited medical/dental care and special therapies.

History of Oral and Maxillofacial Surgery in Lancaster County

Oral Surgery began as a Specialty in Dentistry in the late 1940's with Irvin Uhler. He was trained at Temple Dental School and took special courses in Michigan. He served in the Navy. Howard S. Eckhart joined Irvin Uhler in 1953. They practiced together until 1960 when Dr.

Eckhart started his own practice at 616 N. Lime Street. He was trained at Penn Dental School.

Also, Dr. Phillip Jacobus started another practice in 1955 as the first Oral Surgeon to have attended one of the first Oral Surgery Residencies in the United States. The program was a two year program.

Dr. Uhler had several associates before Dr. Lynn Dolan joined his practice in the mid 1970's.

Dr. Fredrick Chairsell joined with Dr. Jacobus in the 1970's and they practiced together until 1988.

Dr. Dave Shulman came to Ephrata in the late 1970's where Dr. Steven Waugh joined him briefly before leaving and joining Dr. Lynn Dolan and Dr. Irvin Uhler in 1978, when Dr. Uhler soon retired. Dr. Dave Shulman practiced by himself before selling his practice to Dr. Steven Sudbrink and retiring in 1998. Dr. Sudbrink had several associates briefly from 2005 to 2008. Dr. Vakkus then joined the practice and is now a partner.

Dr. Thomas Yingling joined Dr. Dolan and Dr. Waugh briefly in 1982 for one year. He left them and then returned to open his own practice in 1986.

Dr. Michael Eckhart joined his father in 1995 and in 1988 Conestoga Oral and Maxillofacial Surgery began with the merging of Drs. Howard Eckhart, Philip Jacobus, Fredrick Chairsell and Michael Eckhart. One year later, Dr. Thomas Yingling also joined Conestoga Oral Surgery. Dr. Gary Seldomridge then joined the practice in 1991 as Dr. Jacobus retired the end of 1990. Dr. Howard Eckhart retired in 1991.

Dr. Eric Katch started a solo practice in 1995. He had several associates before Dr. Maxwell Adams joined him in 2005. They are known as Campus Oral Surgery.

Dr. Dolan retired in 1997 and Dr. Waugh joined Conestoga Oral Surgery along with Andrew Heise also that same year. Dr. Daniel Henrichsen joined Conestoga Oral Surgery in 2005.

Dr. Frederick Chairsell retired from Conestoga Oral Surgery in 2008. That same year Dr. Brandon Iverson joined Conestoga Oral Surgery. Dr. Steven Waugh retired in July 2012.

Oral Surgery began to accomplish extractions and removal of wisdom teeth and pre-prosthetic surgery prior to dentures. Trauma and treatment of fractures and lacerations were also a big part of Oral Surgery. Oral Surgery was also providing sedation and general anesthesia in the offices. Orthognathic surgery started in the late 1970's. Dental implant treatment began in the late 1980's. Oral surgery in Lancaster has continued to be on the leading edge of diagnostic and surgical advancements within the specialty.

A BRIEF HISTORY OF ENDODONTICS (ROOT CANAL)

Endodontics treatment is the official term for a root canal procedure, in which an Endodontist (or a root canal treatment specialist) removes damaged tissue from the root canals inside of teeth. The word comes from the Greek, endo, meaning inside and odono, meaning tooth. When tooth pulp, which contains sensitive nerves, arterioles, venules, lymphatic tissue, and fibrous tissue, becomes damaged, an endodontic specialist steps in to rescue the tooth.

The Roots of Root Canal

Endodontic treatment dates all the way back to the second or third century B.C. In 1985, archeologists discovered evidence of early root canal surgery in Israel's Negev Desert. After examining the jaw of a 2000 year old deceased Nabataen soldier, Joseph Zias, of Israel's National Department of Antiquities and Museums, unearthed a one-tenth of an inch bronze wire, which had been embedded in the nerve cavity of one of the skull's teeth. The location of the wire was in the exact spot of infection, where modern root canal treatment would be targeted. Apparently, the wire was used to reduce infected tooth pulp, as the soldier suffered from three abscesses and a cyst.

As ancient Jews show no records of having practiced dentistry, archeologists believe the treatment must have been practiced by a Roman