

## **James L. Holly, M.D.**

### **The Visionary Founder of the Joslin Diabetes Center:**

#### **SETMA's Pride and Promise**

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**Your Life Your Health**

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The Civil War had been over for only four years and two months when the future founder of Joslin Diabetes Center was born in Oxford, Massachusetts. He would change the lives of millions of patients with diabetes. When Elliott P. Joslin was born, medical education and practice were still primitive. Patent medicines and proprietary medical schools still prospered. When Dr. Joslin opened his diabetes clinic in his home in 1898, the publication of the revolutionary Abraham Flexner report on medical education was still twelve years away. The discovery of insulin was still twenty-five years away.

In this context, the visionary work of Dr. Joslin can be appreciated. He was the first physician to choose the area of diabetes as his specialty. Shown below in a portrait made just one year after he opened a general practice clinic in his home in Brookline, Massachusetts, Dr. Joslin's resolution and drive are seen in his face.



As resolute as he was, his kindness and gentleness were also seen as in this picture taken shortly before his death in 1962, at the age of 92.



As SETMA prepares to celebrate its new affiliate status with Joslin Diabetes Center, which is itself an affiliate of Harvard Medical School, we are deeply aware of the debt that all of us who care for patients who have diabetes owe to the founder of the Joslin Clinic. As we embark upon this new endeavor, we remember that Dr. Joslin's visionary status within the medical community was not always recognized during his life time. In fact, many of his greatest contributions to the care of patients with diabetes were not validated and were not generally accepted until after his death.

### **Team Approach (The Following information is taken from Joslin's website)**

One distinctive characteristic of Dr. Joslin's approach to the treatment of diabetes involved his belief in the "troika," the Russian word meaning threesome. EPJ, as he was often called, created a three-horse chariot to reflect his philosophy of living with diabetes. The three-horse motif symbolized insulin, diet and exercise, which are needed to achieve "victory" over diabetes. Five years after designing the "troika," in 1953, he incorporated the figure into the signage for the Diabetes Foundation, Inc.



## **When He Started**

Dr. Joslin's success is remarkable because when he started his clinic and for the next twenty five years, patients with type 1 diabetes (those unable to make insulin) died. Typically, they died within four months. The only way to extend their life was to place them on a starvation diet and then they often died of malnutrition in less than two years.

When insulin became available as therapy in 1922, Joslin's corps of nurses became the forerunners of certified diabetes educators, providing instruction in diet, exercise, foot care and insulin dosing, and established camps for children with diabetes throughout New England.

## **Multi-disciplinary Approach**

Dr. Joslin always adopted a multi-disciplinary approach, working with nurses in education, surgeons and podiatrists for limb salvage and foot care, pathologists for descriptions of complications and obstetricians for assessment of fetal risk in diabetic pregnancy. The first hospital blood glucose monitoring system for pre-meal testing was developed under his direction in 1940, and was the forerunner of modern home-monitoring systems.

Dr. Joslin was also the first to name diabetes as a serious public health issue. Just after WWII, he expressed concern to the Surgeon General of the U.S. Public Health Service that diabetes was an epidemic and challenged the government to do a study in the town of his birthplace, Oxford, Massachusetts. The study was started in 1946 and carried out over the next 20 years. The results would later confirm Joslin's fear that the incidence of diabetes in the United States was approaching epidemic proportions. He has been named as being, along with Frederick Madison Allen, one of the two leading diabetologists from the period between 1910 and 1920.

In 1952, Joslin's group practice became officially known as the Joslin Clinic. In 1956, the office was moved to its current location at One Joslin Place in Boston. Joslin Clinic was the world's first diabetes care facility and today maintains its place as the largest diabetes clinic in the world.

Dr. Joslin was adamant in his position that good glucose control, achieved through a restricted carbohydrate diet, exercise, and frequent testing and insulin adjustment, would prevent complications. This was debated for decades by other endocrinologists and scientists, and the American Diabetes Association was divided on this subject from its inception. Joslin's approach wasn't validated until 30 years after his death, when in 1993, a 10-year study, "The Diabetes Control and Complications Trial Report" was published in the prestigious *New England Journal of Medicine*. This study demonstrated that the onset of diabetes complications was delayed by tight glucose control, something Joslin had argued decades prior.

To honor Dr. Joslin's foresight, buttons were produced for Joslin Clinic patients and staff that read "I Told You So."



For our November 30<sup>th</sup> celebration, SETMA has had 1,000 of these buttons made. They will be given to the first 1,000 people who attend the celebration.

### ***Massachusetts Humanities***

The Massachusetts Foundation for the Humanities (Mass Humanities) launched the *Mass Moments* project—an electronic almanac of Massachusetts history—on January 1, 2005. The 366 “Mass-Moments” stories include the following details of Dr. Joslin’s life and career:

“...In 1893, a student at Harvard Medical School made the first entry in a ledger he would keep for the rest of his long career. Elliott Joslin examined a frail young Irish girl, who was suffering from diabetes. Long before he became one of the world's leading authorities on diabetes, he understood the importance of careful documentation. Keen observation of his patients helped him develop a novel approach to the treatment of diabetes. He prescribed a strict diet that regulated blood sugar levels and helped patients manage their own care. The introduction of insulin in 1921 confirmed the effectiveness of Joslin's approach. Elliott Joslin saw 15 patients a day until a week before his death in 1962, at age 92.

“Unlike many other men who made Boston a center of medical innovation, Elliott Joslin was born in Massachusetts — in the town of Oxford, 40 miles west of Boston. The son of a wealthy shoe manufacturer, Elliott was an unusually focused, driven young man. He attended Yale College, graduated at the top of his Harvard Medical School class, and served an internship at Massachusetts General Hospital. After additional study in Europe, he returned to Boston in 1898 and opened a private office in the house his father had bought in the Back Bay.

“Although Joslin had been interested in diabetes since medical school, he began his career as a general practitioner. Physicians who specialized in one particular disease were still rare in American medicine, and it would be almost 20 years before Elliott Joslin emerged as one of the most influential people in the study and treatment of diabetes.

“Mary Higgins's case sparked his interest and convinced him of the need to chart in detail the course of a patient's illness. Joslin began keeping a diabetic ledger in 1893; Mary Higgins was the first entry in the first volume. He documented every patient he treated for the next 70 years. Eventually, his ledgers filled 80 volumes and became the central registry for diabetes in the United States, the first system for recording patient diabetes data outside of Europe.

“The eighth patient described in his ledger had special significance for Elliott Joslin: it was his mother, Sara Proctor Joslin, diagnosed with diabetes in 1900. The disease was considered uniformly fatal, but Sara Joslin lived an astonishing 13 years after her diagnosis. She followed her son's instructions to eat a low-carbohydrate, high-fat diet.

“In his 1916 textbook, *The Treatment of Diabetes Mellitus*, Joslin described the disease and the unconventional treatment program he had developed. It emphasized careful control of blood sugar levels, regulated by "scientific" menu plans like the one he had prescribed for his mother. While Joslin's regimen was unrelenting — one girl remembered being forbidden regular cake and having to settle for one made of soda-biscuit even on her 16<sup>th</sup> birthday — the benefits were clear. His patients lived longer, and he quickly gained a reputation as the leading clinician in the country for the treatment of diabetes. His textbook, now in its 14<sup>th</sup> edition, is still the standard work on diabetes.

“The book included a section, ‘Aids in the Practical Management of Diabetic Cases,’ reflecting Joslin's commitment to giving patients the knowledge they would need to help manage their own disease and treatment. While a widely-accepted idea today, teaching the afflicted and their families how to administer personal treatment plans was a radical approach in 1916. Once a patient returned home from the hospital, he or she was assisted by ‘wandering diabetes nurses,’ another of Dr. Joslin's innovations.

“Elliott Joslin was one of six North American physicians appointed to the committee, organized in the early 1920s, to conduct the first clinical trials of insulin. This gave him access to insulin and a chance to observe its effectiveness. Growing numbers of patients sought him out. In a typical year before insulin, he recorded 200 new cases in his ledger; after insulin became available, the number jumped to nearly 800.

“In 1934 a building was opened on the New England Deaconess Hospital site to house research laboratories for Dr. Joslin and colleagues. With a hand-picked team of physicians to assist him, Joslin was able to expand and institutionalize what had been a solo practice for over 20 years. “

Joslin and his colleagues continued to look for ways to improve the treatment of diabetes. He understood the importance of giving hope and encouragement to patients and developed the custom, still followed at the Joslin Diabetes Center, of presenting medals to diabetics who brought their disease under control. ‘If a diabetic with his disease can live longer than his neighbor of the same age without it,’ Dr. Joslin once said, ‘I consider that he has attained a distinction, and should be recognized as outstanding.’

“Joslin was known for his showmanship as well as his medical proficiency. Once he was scheduled to lecture on obesity. When the time came, the podium was empty. After a few moments, the back door of the auditorium opened and the Joslin entered carrying two large buckets of water. He laboriously made his way to the stage, set down the pails, and gave this brief lecture: ‘This,’ he told the stunned audience, ‘is what the obese person does every day and every night of his life.’

“In 1952 Dr. Joslin's clinic at the Deaconess formally adopted the name that many had used informally for years: The Joslin Clinic. In 1968 the Diabetes Foundation, founded in 1953, was rechristened the Joslin Diabetes Foundation in recognition of Elliott Joslin's incalculable contribution to the study and treatment of the disease. Since 1981, the foundation has been known as the Joslin Diabetes Center.”

## **SETMA and Joslin**

Dr. Joslin's story and his work bring a sobriety to SETMA, as we undertake the responsibility of being an affiliate of his Foundation. While we are honored to have our name associated with Joslin's; we are also humbled by the gravity of that association. It is our resolution to add the capacity of an engaged and committed multi-specialty group as a new dimension to the Joslin model of diabetes care. It is our commitment to bring the power of our “process automation” and of our “outcomes auditing” to the ideas and ideals of diabetes care as designed and developed by Dr. Joslin and his successors.

As we look to the future, we are challenged by the knowledge and the memory of the past. It is our hope that the Joslin Diabetes Center Affiliate at Southeast Texas Medical Associates will be a credit to the memory of Dr. Joslin and to the institution which he founded. We are confident it will be a benefit to those we serve.