

Clarence DeMar and the Medical Mythology of the Marathon

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Clarence DeMar, unquestionably, is one of the most outstanding marathon runners of all-time. Between 1911 and 1930 he won the Boston Marathon a record seven times, placed second three times, and garnered third place twice. The Boston printer and teacher also represented the United States in the Olympic Games marathon three times, capturing the bronze medal in 1924. DeMar, who ranks as the oldest champion of the Boston Marathon, winning in 1930 at the age of 41, finished his last marathon in 1954 at the age of 66. Before dying of cancer in 1958, he contested over 1,000 distance races.

For the historian of medicine and sport, DeMar offers a brilliant foil to examine the change and continuity concerning medical opinion towards marathon running in the twentieth-century. When he began racing the marathon in 1910, medical thought was divided as to whether marathon running would result in the pathological enlargement of the heart, leading to either sudden death, or progressive heart disease. By the 1920's, when DeMar enjoyed his greatest marathon running success, physicians generally agreed that the enlargement of the heart resulting from marathon running was not pathological, and that it was probably a necessary prerequisite for successful marathon running. Some doctors even speculated that the most successful marathon runners were born with large hearts. DeMar, who participated in clinical examinations of marathon runners that contributed to this change in medical thought, also participated in the landmark experimental studies of physical training conducted by the Harvard Fatigue Laboratory, which demonstrated the stark physiological contrasts between physically active and sedentary men and the advantage of regular exercise in maintaining physical fitness during middle age.

A postmortem cardiac examination of DeMar revealed that his heart, while enlarged, was normal, and although there was evidence of slight coronary disease, the coronary arteries were two to three times usual diameter. Paul Dudley White, the leading medical proponent of exercise during the mid-twentieth-century, published the results of the DeMar autopsy to show that a lifetime of vigorous exercise did not injure the heart. However, he did not attribute the extraordinary size of DeMar's arteries entirely to marathon running, as he considered genetic endowment to be equally important. Physicians captured by the zeal of the 1970's marathon running boom, however, maintained that marathon running provided immunity to heart disease. DeMar became embroiled in this debate, only when critics pointed to his autopsy report as providing the initial support for the contention that marathon runners were immune to coronary disease, while in truth, the report said nothing about that, nor even ventured to imply it.