

Books on Cardiac Surgery and Extracorporeal Circulation

“History is neither more nor less than biography on a large scale.”

Alphonse de Lamartine (1790-1869) French author, poet, historian, and statesman

1950s

Dripps RD (Ed.) *The Physiology of Induced Hypothermia; Proceedings of a Symposium held 28-29 October 1955.* Washington, DC: Publication 451, National Academy of Sciences—National Research Council, 1956. [There are multi-authored chapters grouped in five major parts: General Physiochemical and Physiologic Considerations of Hypothermia; Effects of Hypothermia on Specific Systems; Myocardial Irritability and Hypothermia; Clinical Application of Induced Hypothermia; and Techniques of Inducing Hypothermia. Transcripts of discussions from attendees are included.]

Burton AC, Edholm OG. *Man in a Cold Environment; Physiological and Pathological Effects of Exposure to Low Temperatures.* London: Edward Arnold Publishers Ltd., 1955. [This text was written in scientific prose by two professors from the University of Western Ontario, Canada. While readily admitting that much of the wartime work on hypothermia was lost or buried in military reports, the authors source this controversial material and make much of it the basis for this publication. The first two chapters highlight man’s strife to maintain a thermal steady state (homeothermy). Chapter 11, entitled “Hypothermia and Resuscitation”, is a most fascinating read for any medical practitioner. First, it discusses hypothermia as a proposed treatment modality for both neoplasms and schizophrenia. Second, it touches on the horrific experiments performed at Dachau by the Nazis on prisoners of war. References are abundant, including publications cited by young cardiac surgeons Drs. W.G. Bigelow and H.B. Shumacker.]

Bailey CP. *Surgery of the Heart.* Philadelphia: Lea & Febiger, 1955. [This is a beautiful and robust textbook that reviews surgical approaches for both congenital and acquired heart diseases. Full chapters are dedicated to hypothermia and the heart-lung machine. The first chapter written by Dr. Robert S. Litwak on the development of cardiac surgery is particularly noteworthy.]

Allen JG (Ed.) *Extracorporeal Circulation.* Springfield, IL: Charles C. Thomas, 1958. [This compendium was the result of a meeting held in Chicago in September 1957 sponsored by the US Public Health Service. Besides publication of formal presentations supplemented with multiple photographs, drawings, tables, and graphs, transcripts of discussions were

published. Major sections include Pumps and Oxygenators; The Physiology of Perfusion; The Effect of Perfusion on Organs; and The Heart. Participants included pioneering cardiac surgeons and physiologists from recognized US and international centers.]

Engel L. *The Operation; A Minute-by-Minute Account of a Heart Operation—and the Story of Medicine and Surgery that Led Up to It*. New York: McGraw-Hill Book Co., 1958. [While this book dates from the late 1950s, the journalist-author recounts in compelling detail a congenital cardiac operation performed at the University of Minnesota by early cardiac surgeons and their team and provides background on the development of extracorporeal circulation that evolved from the Lillehei cross-circulation experience.]

Gollan F. *Physiology of Cardiac Surgery, Hypothermia, Extracorporeal Circulation and Extracorporeal Cooling*. Springfield, IL: Charles C. Thomas, 1959. [This monograph was based on a lecture given to the Wayne County Medical Society. The three main chapters are: Hibernation and Induced Hypothermia; Extracorporeal Circulation; and Extracorporeal Cooling. There are many figures and a photograph of the Clark-Gollan “microbubble oxygenator with internal thermoregulator.” There are 168 citations in the Bibliography.]