

Histoire de la chirurgie cardiaque



Erwan Flécher

Festival des Sciences, Rennes, 8 octobre 2014

La Préhistoire

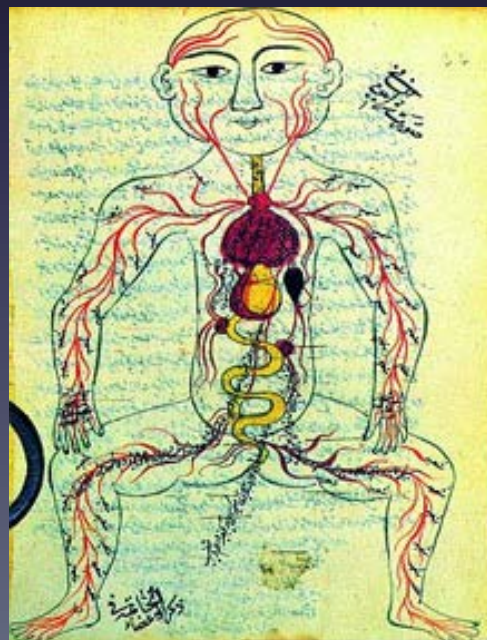
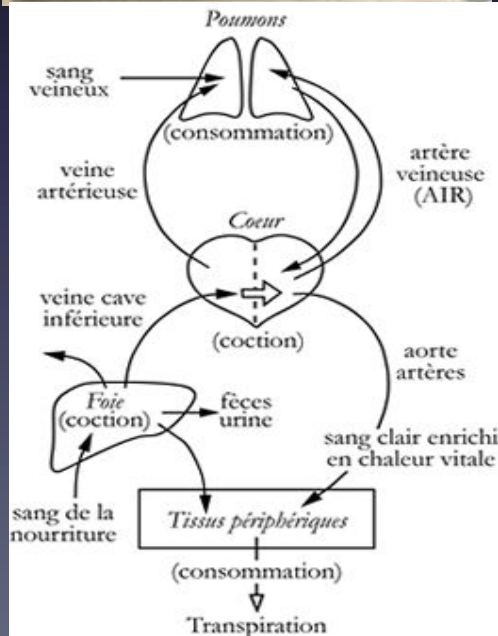
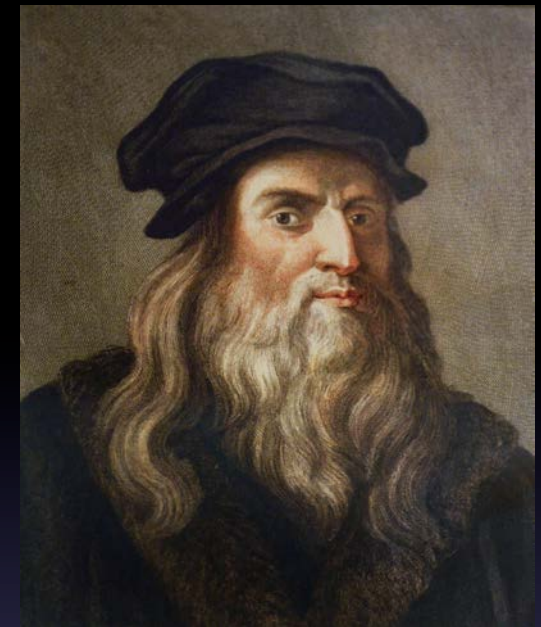
Galien (131-201)



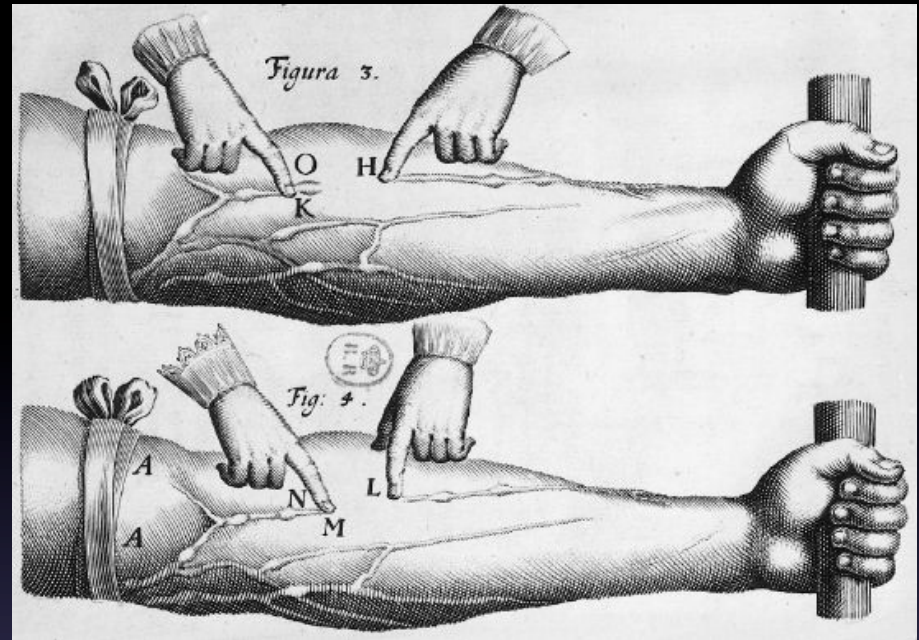
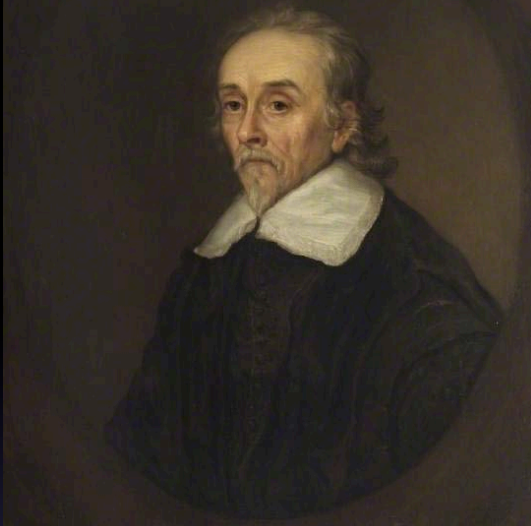
Ibn Al Nafis (1210-1288)



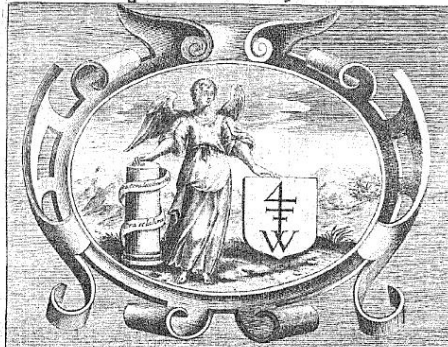
Léonard De Vinci (1452-1519)



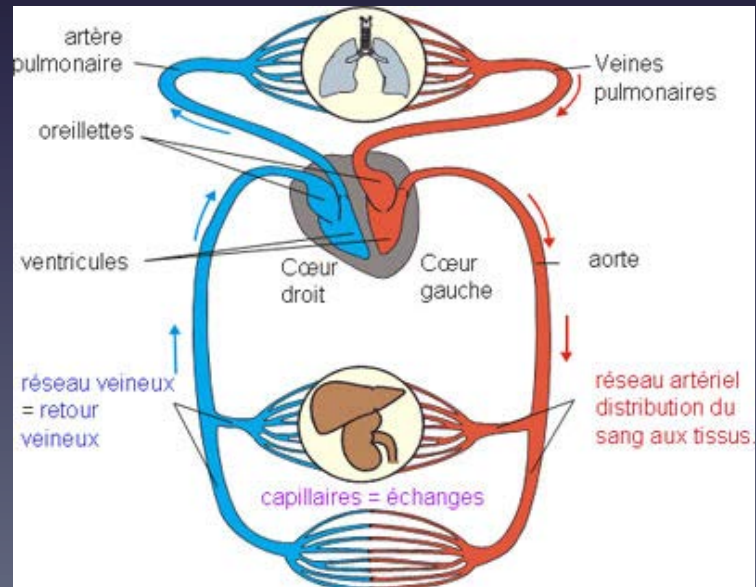
William Harvey (1578-1657)



EXERCITATIO
ANATOMICA DE
MOTU CORDIS ET SAN-
GVINIS IN ANIMALI-
BVS,
GVILIELMI HARVEI ANGLI,
Medici Regii, & Professoris Anatomiae in Col-
legio Medicorum Londinensi.

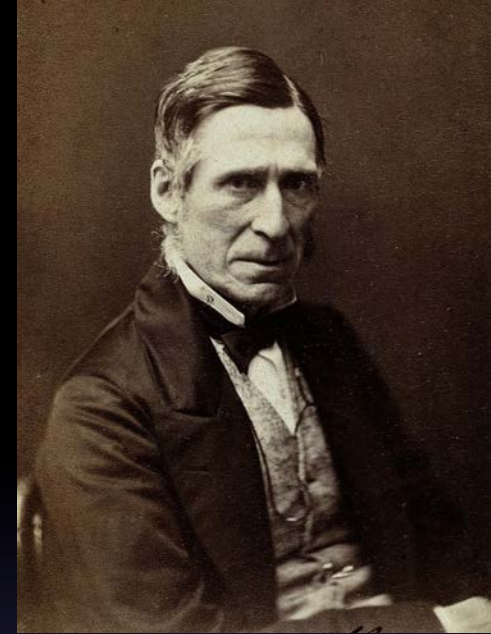


FRANCOFVRTI,
Sumptibus GVILIELMI FITZERI.
ANNO M. DC. XXVIII.





Et puis...plus rien



« un chirurgien qui cherche à suturer les plaies du cœur mérite de perdre la considération de ces confrères »

Théodore Billroth, 1880.

« la chirurgie du cœur représente la limite offerte par la nature à toutes les chirurgies. Aucune nouvelle méthode ni aucune découverte ne pourra dépasser les difficultés naturelles concernant une plaie du cœur »

James Paget, Surgery of the chest, 1897.

La chirurgie cardiaque « extra-cardiaque »

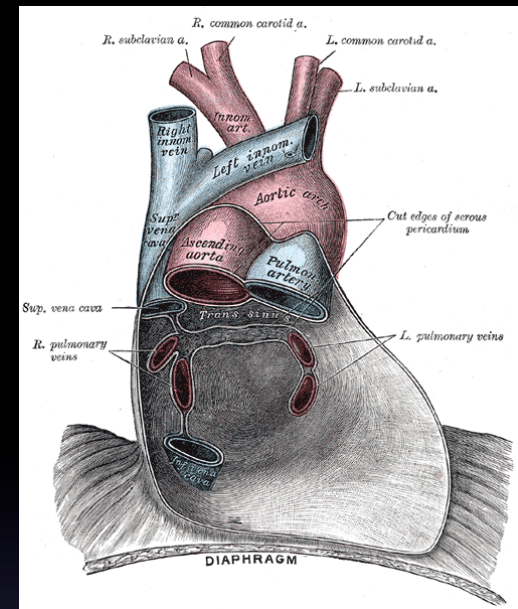
Chirurgie péricardique



Dominique Jean Larrey (1766-1842)

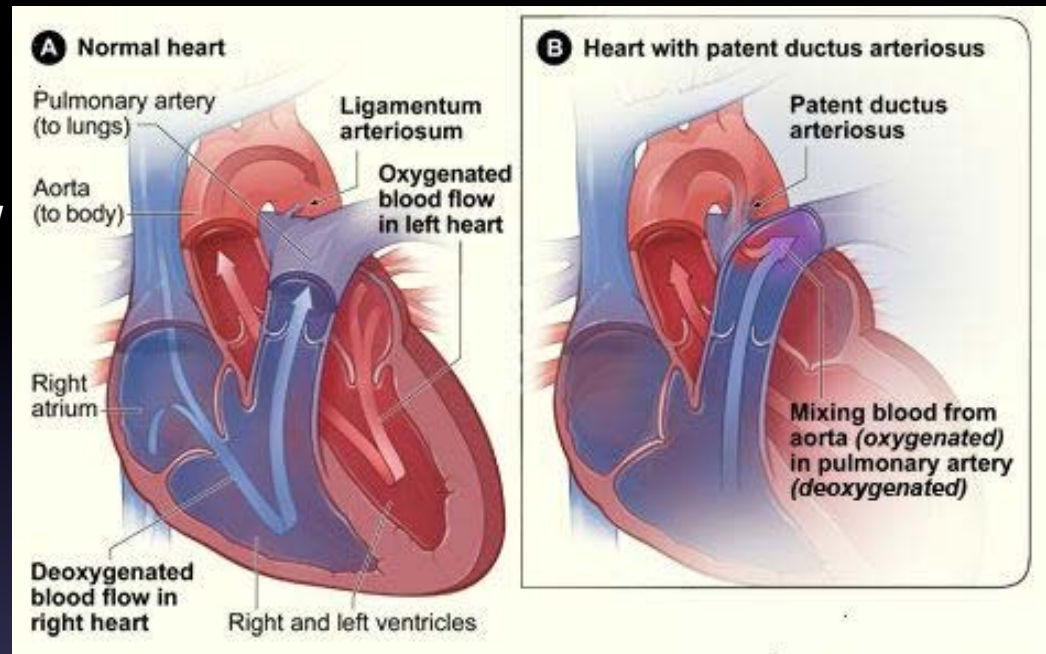


Ludwig Rehn
(1849-1930)



Chirurgie des gros vaisseaux: canal artériel

John Munro: 1907, cadavre
John Strieder: 1937, échec
Robert Gross (1905-1989): 26 août 1938,
Succès



Patient of Dr. Robert E. Gross
Lorraine Sweeney. The beginning of heart surgery



Lorraine Sweeney being shown details of the operation Dr. Gross performed on her in 1938 for a patent ductus arteriosus

Chirurgie des gros vaisseaux: Coarctation de l'aorte



OUR SURGICAL HERITAGE

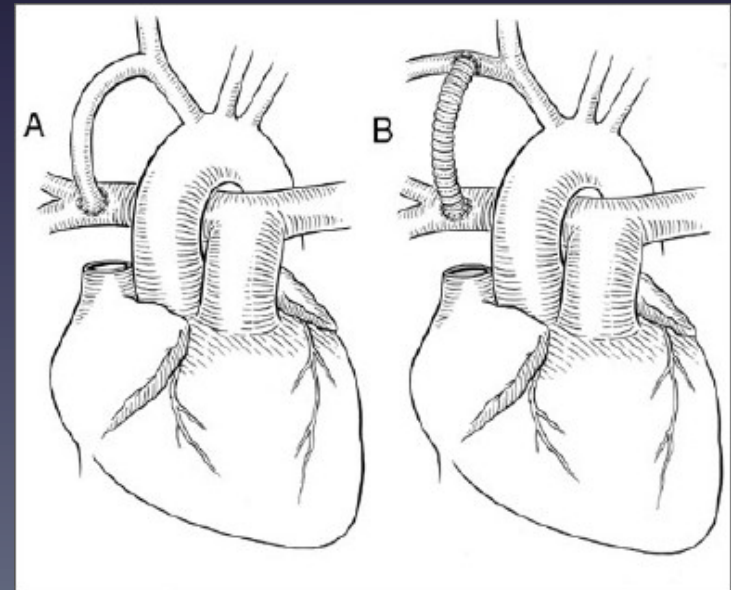
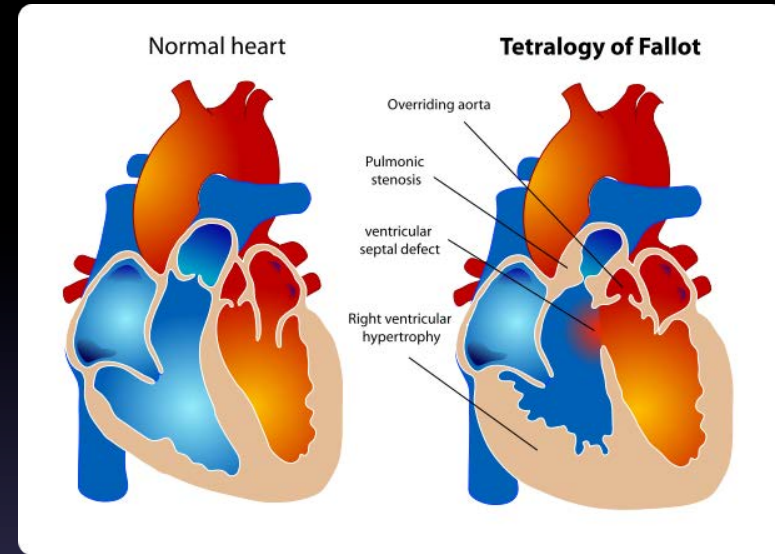
Clarence Crafoord: A Giant in Cardiothoracic Surgery, the First to Repair Aortic Coarctation

John-Peder Escobar Kvitting, MD, PhD, and Christian L. Olin, MD, PhD

Department of Cardiothoracic Surgery, Linköping University Hospital, Linköping, Sweden



L'opération des bébés bleus



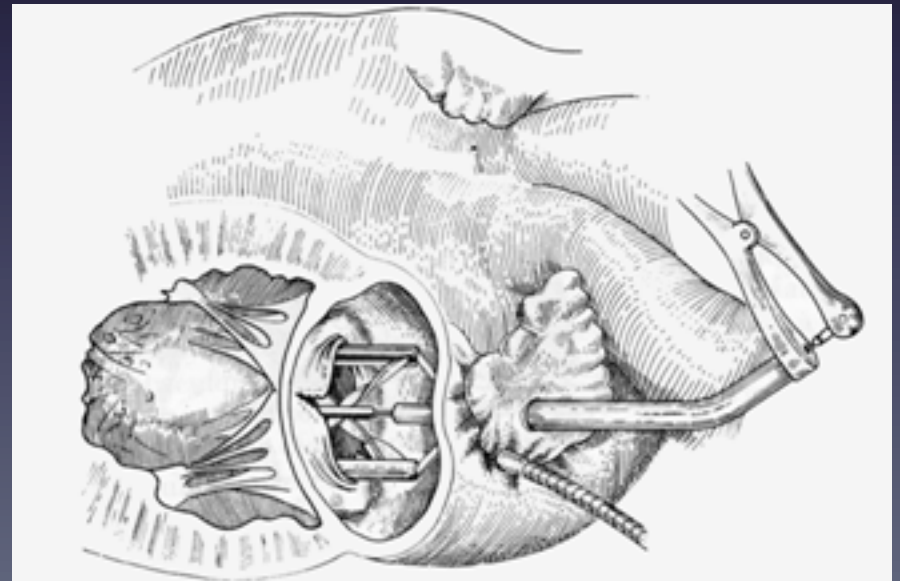
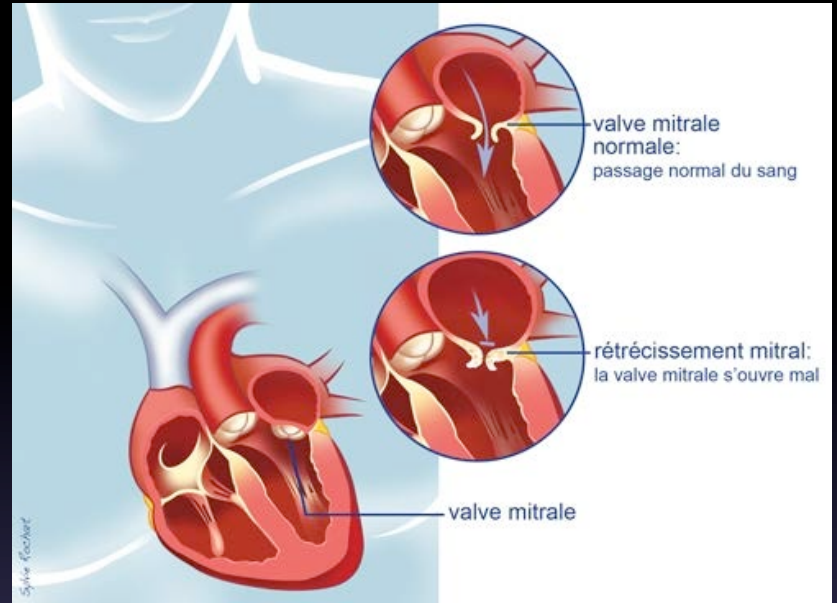
Helen Taussig
(1898-1986)
Alfred Blalock
(1899-1969)
Visite Broussais 1947:
influence Dubost

La chirurgie à cœur fermé

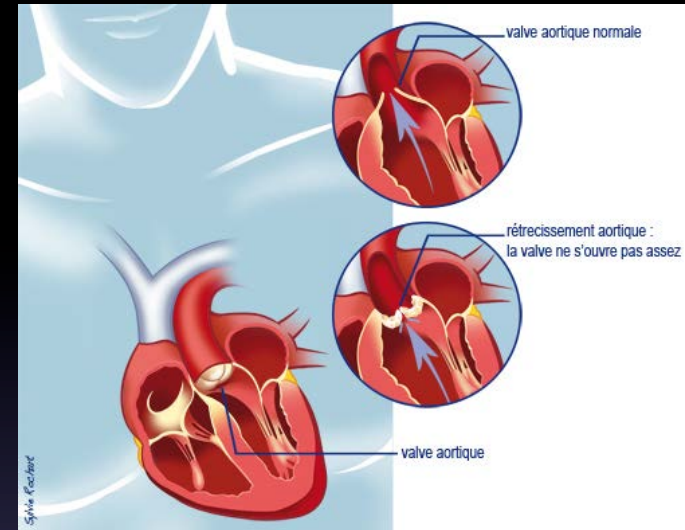


Commissurotomie mitrale

Elliot Cuttler, Boston, 1923
Henry Souttar, 1925
Charles Bailey, Philadelphie, 1948
D. Harken, Boston, 1948



Sténoses pulmonaire et aortique



Théodore Tuffier, 1912
Russel Brock, 1948

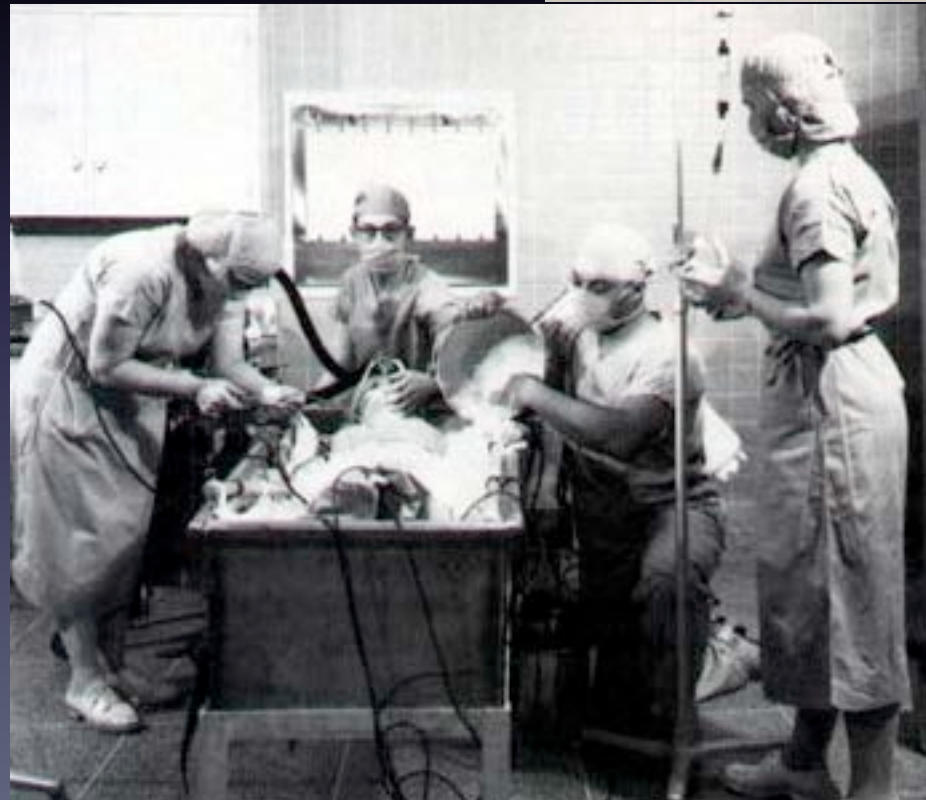
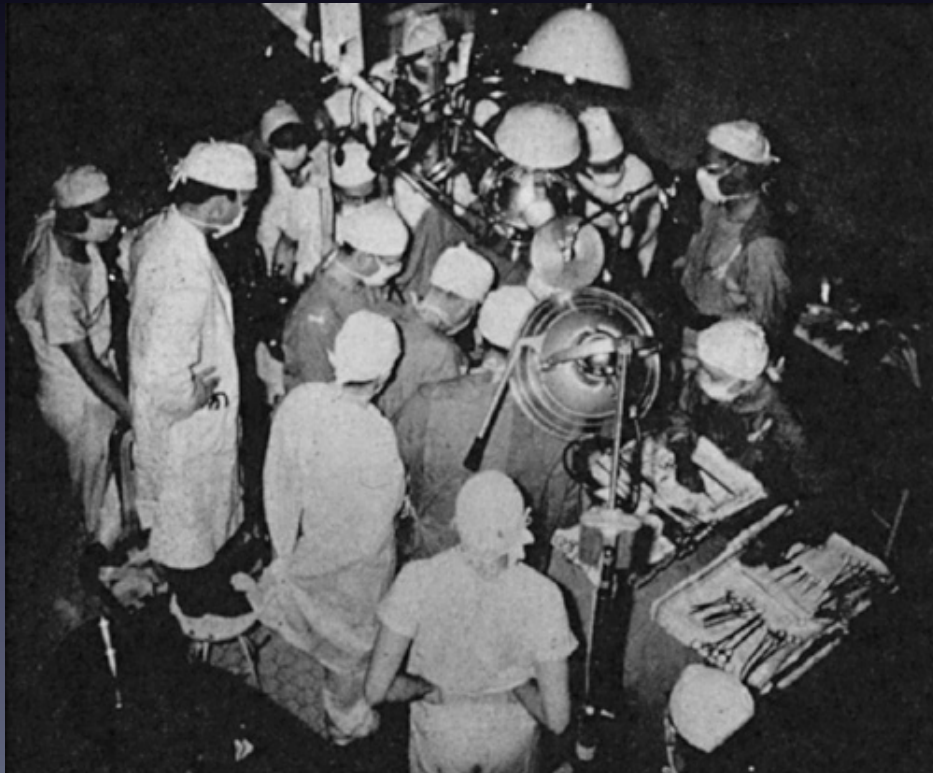
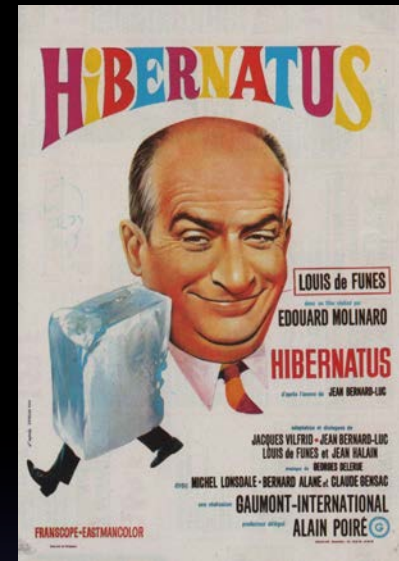
La chirurgie à cœur ouvert



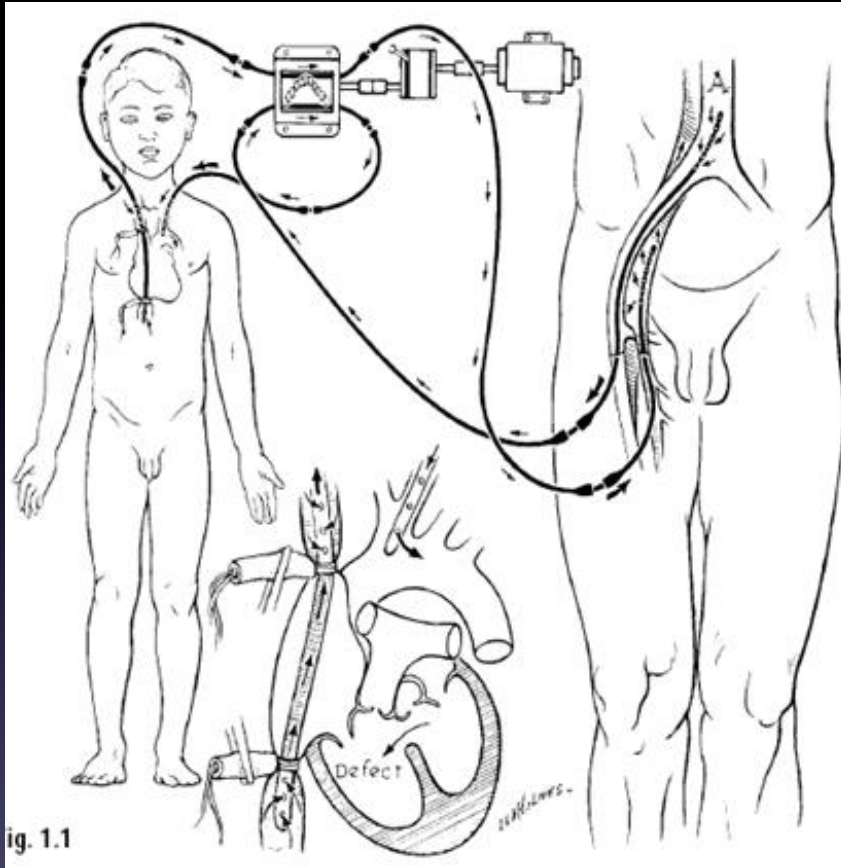
Chirurgie en hypothermie

« One night I awoke with a simple solution to the problem: cool the entire body, reduce oxygen requirements, interrupt the circulation and open the heart » *Wilfred Bigelow*

John Lewis, septembre 1952, Minneapolis.



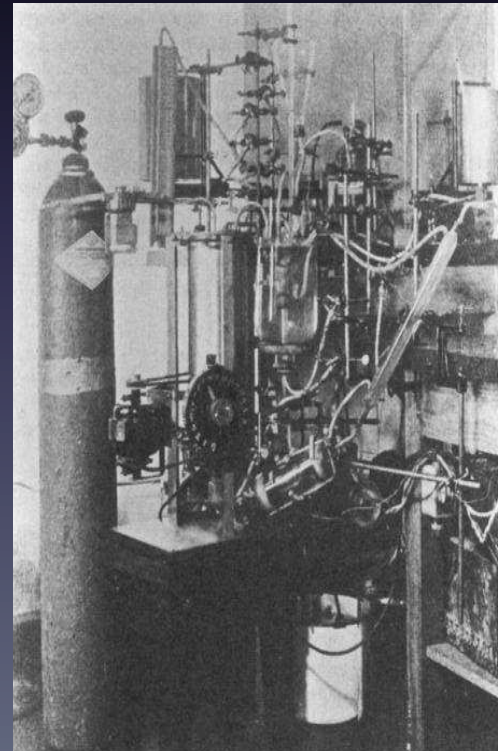
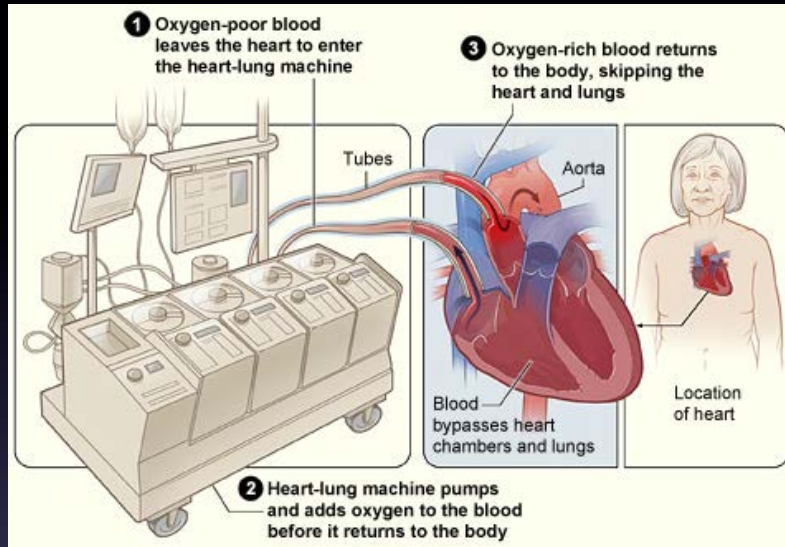
Circulation croisée



26 mars 1954: Walton Lillehei, Minnéapolis
Circulation placentaire
Ethique, mortalité possible de 200%!

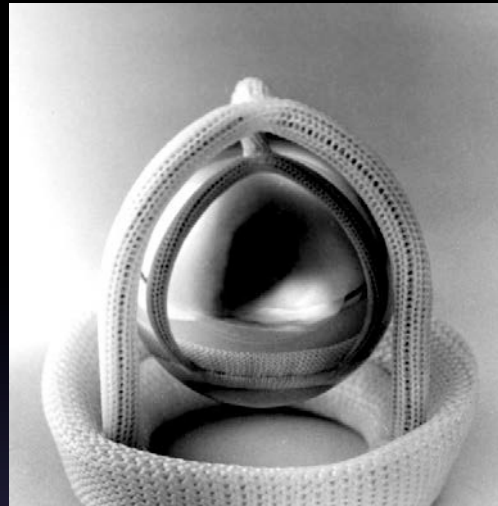


La circulation extra-corporelle



John Gibbon, 1953

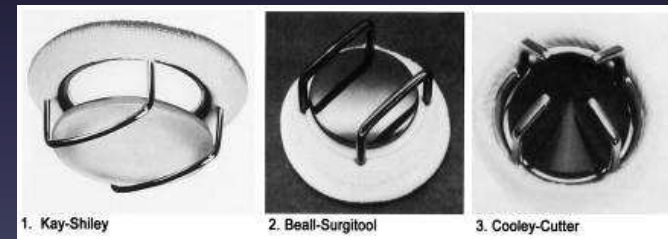
La chirurgie valvulaire (1)



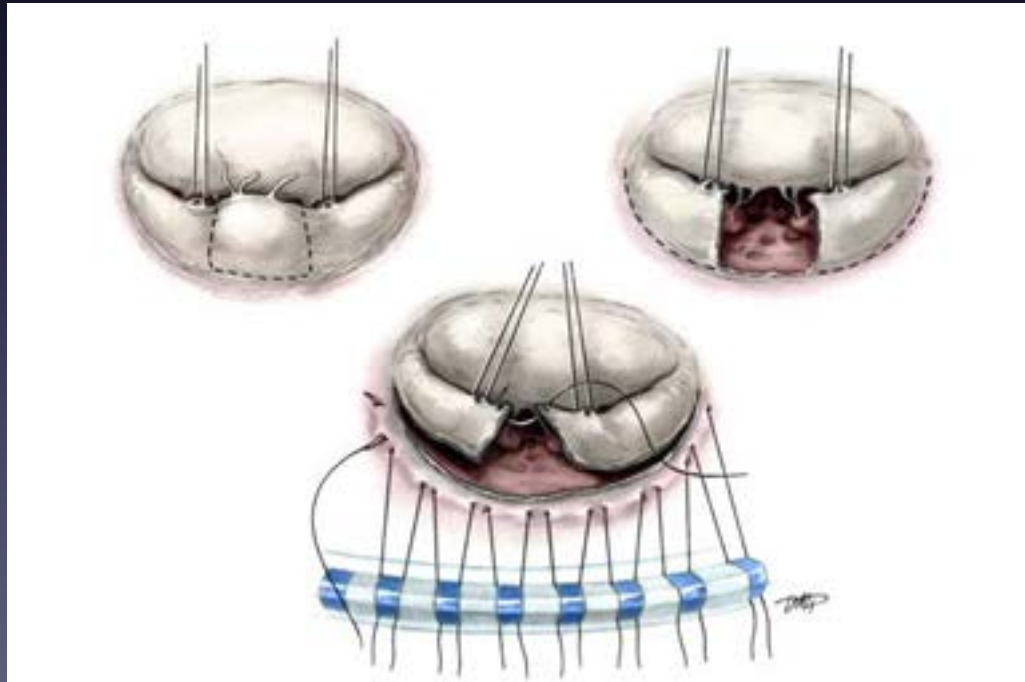
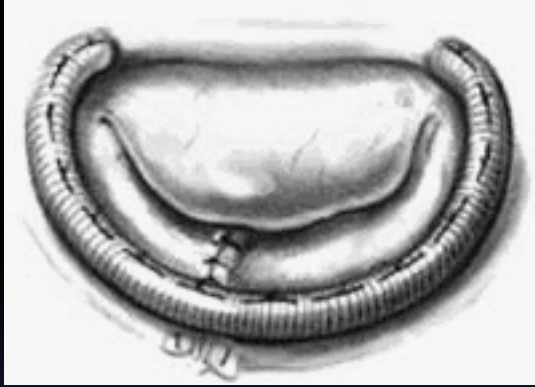
Charles Hugnagel
(1917-1989)



Albert Starr, 1962

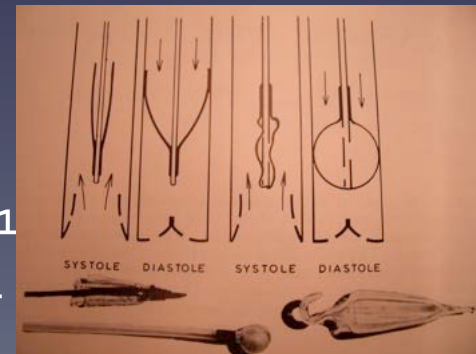
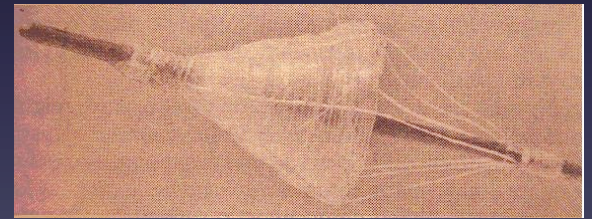


La chirurgie valvulaire (2)

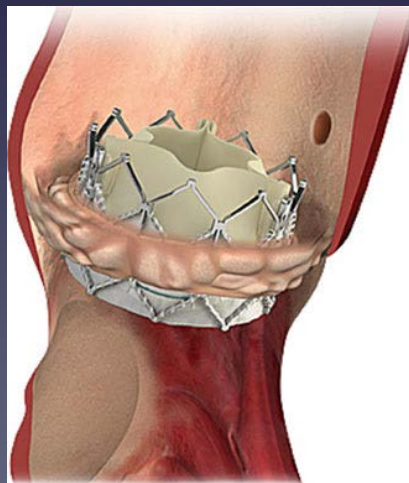
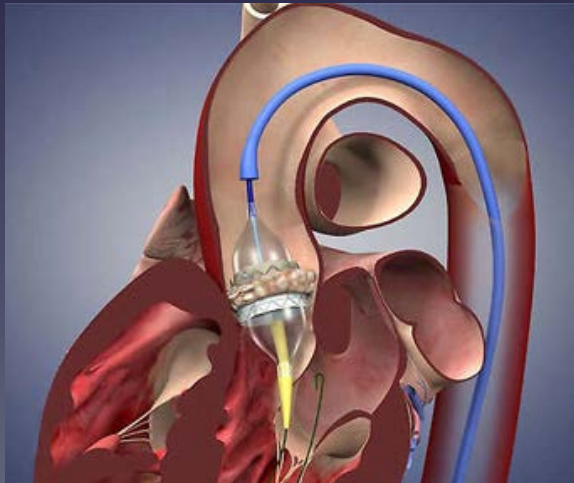


Binet, Ross, Duran
Carpentier 1967, 1968, 1983

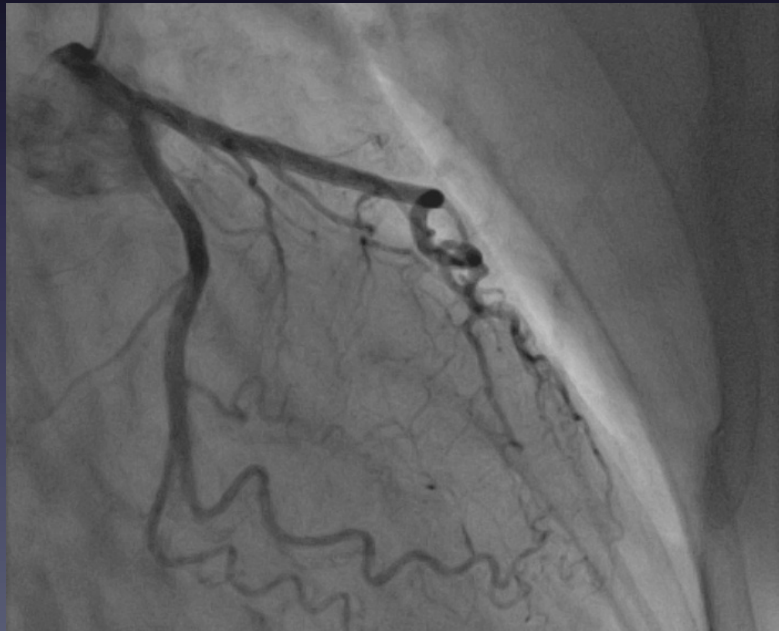
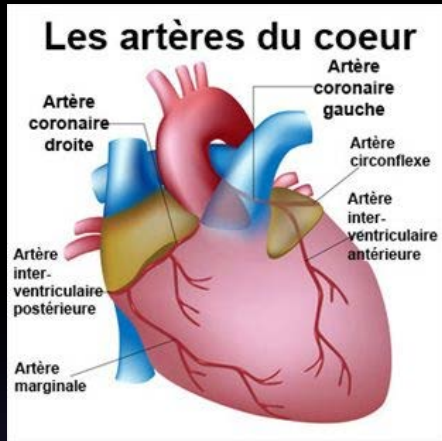
La chirurgie valvulaire (3)



Davies, 1965,
Moulopoulos, 1971
Alain Cribier, 2002



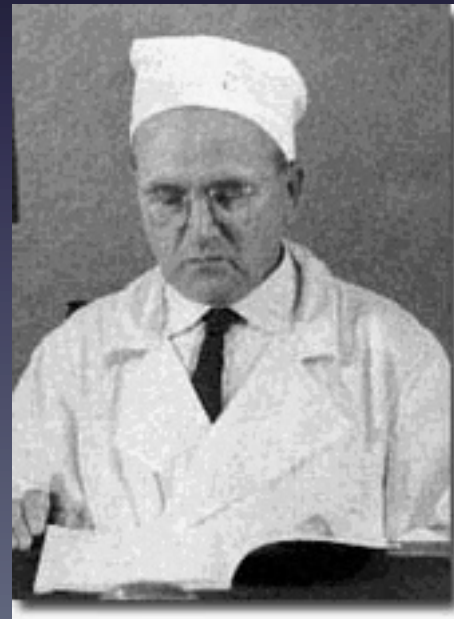
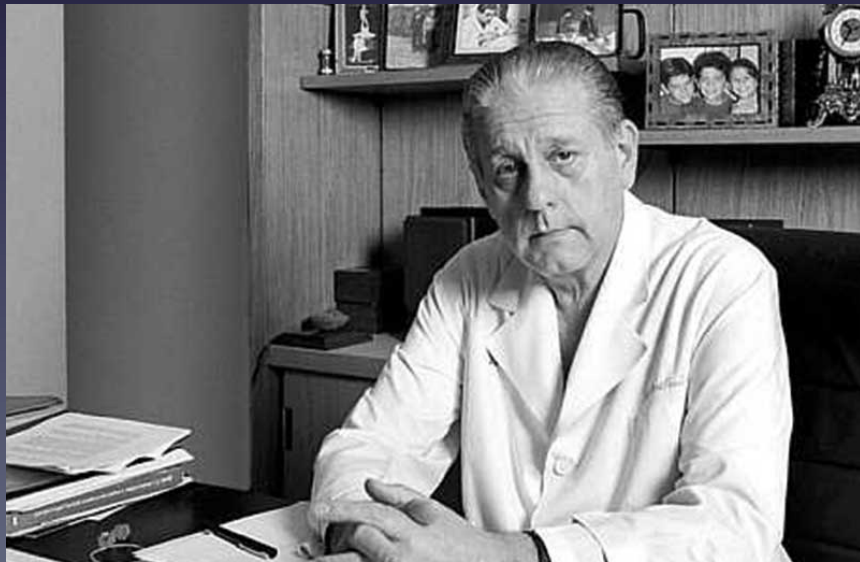
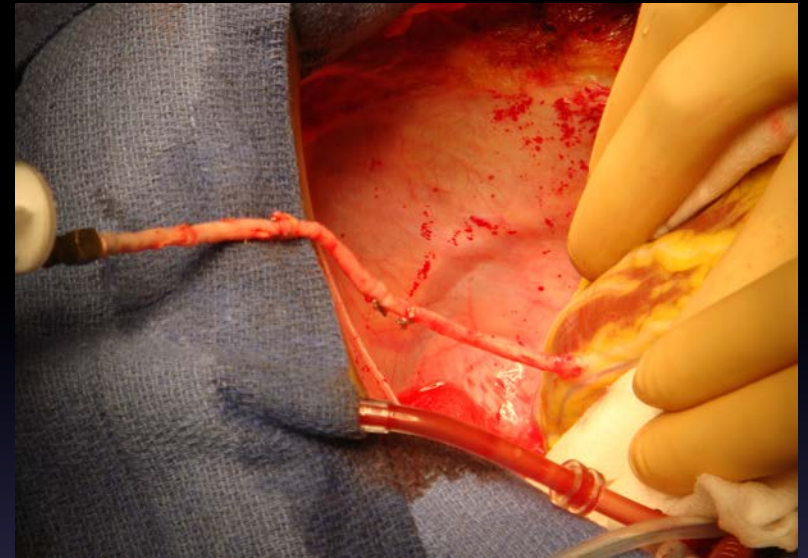
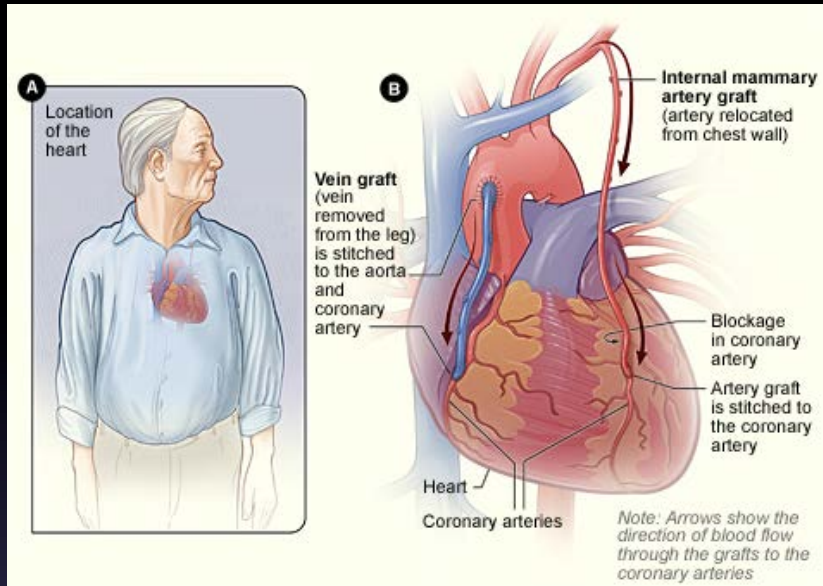
La chirurgie des coronaires (1)



Werner Forssmann, 1929
F.Mason Sones, Cleveland Clinic, 1958

Claude Beck (1894-1971)

La chirurgie des coronaires (2)



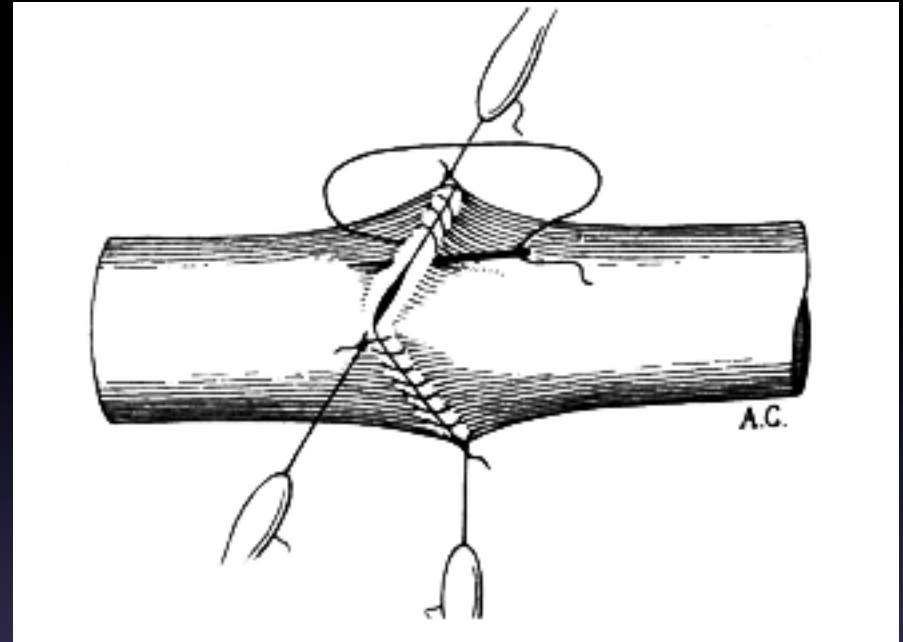
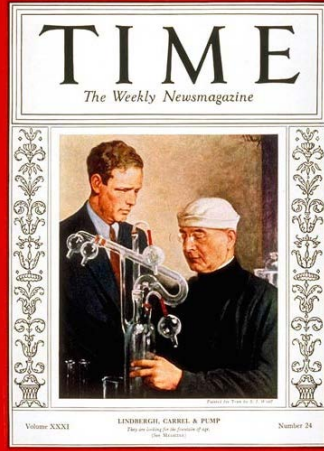
Alexis Carrel, 1910
Vasilii Kolesov, 1964
René Favaloro, 1967

La transplantation cardiaque

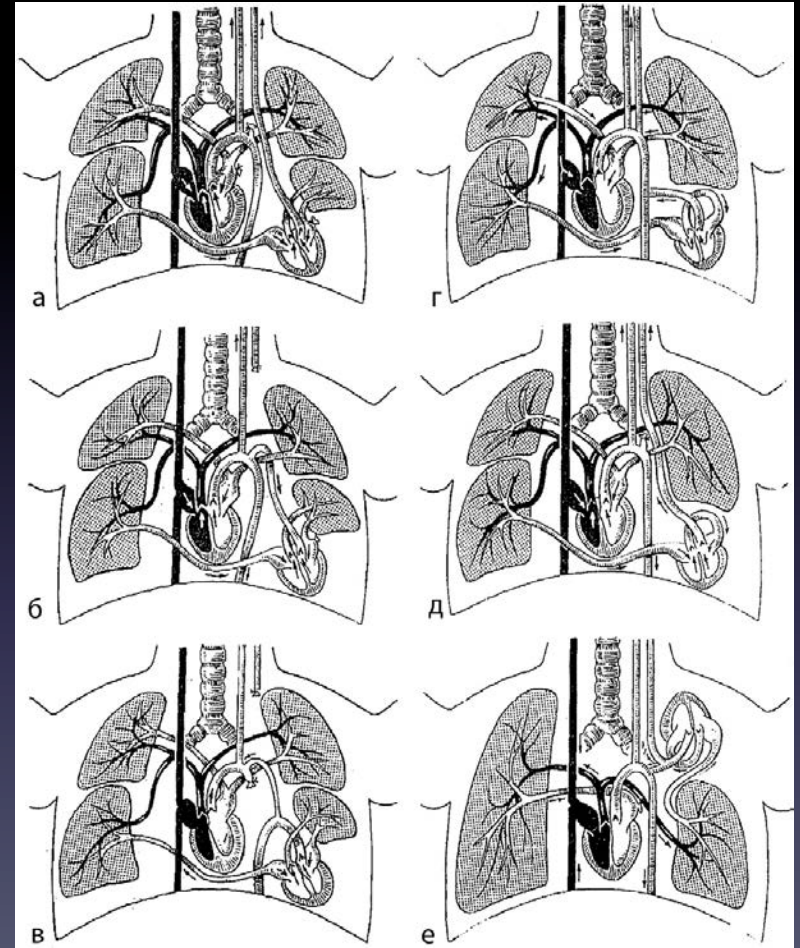


Saint Côme et Saint Damien, Huile de Balbases vers 1495

Alexis Carrel (1873-1944)

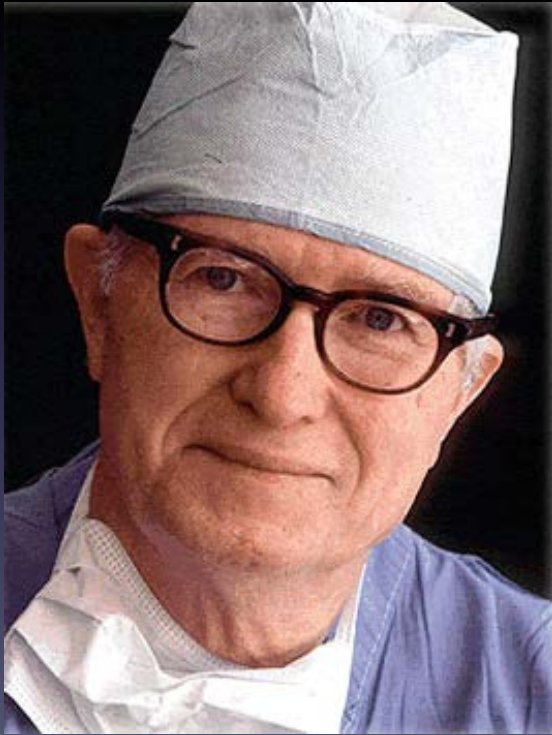


Et pendant ce temps là, en Russie...



Vladimir Demikhov (1916-1998)

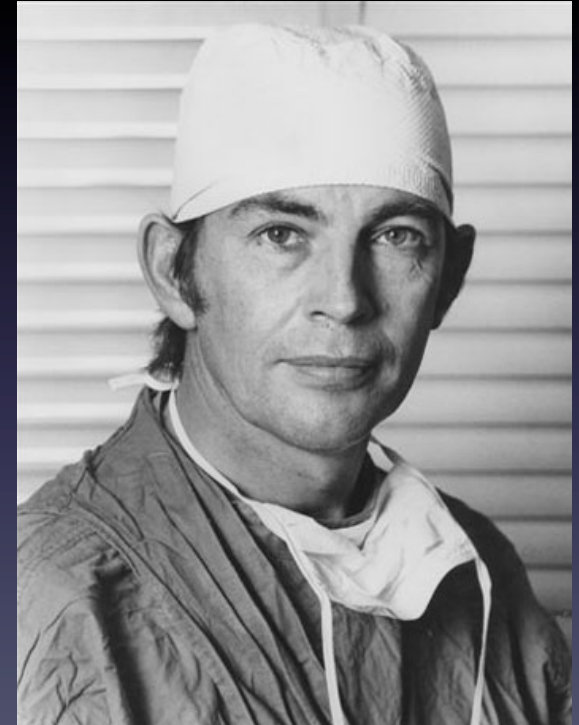
En occident...



James Hardy, Jackson,
Mississippi, 1964



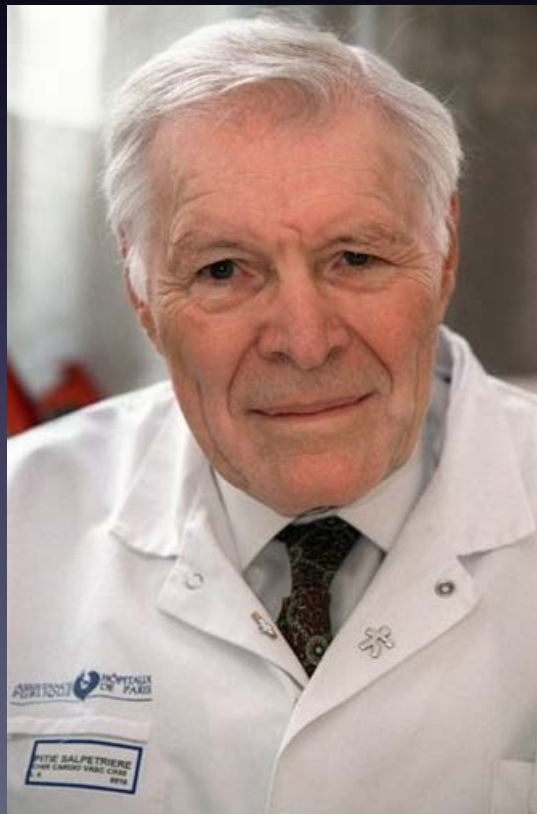
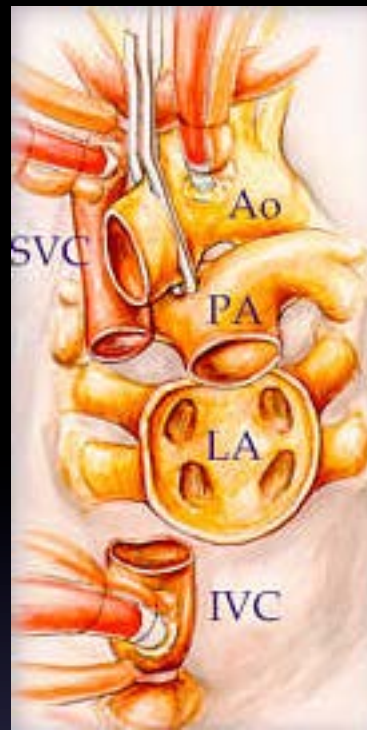
Norman Shumway,
Californie, 1968



Christian Barnard, Le
Cap, 1967



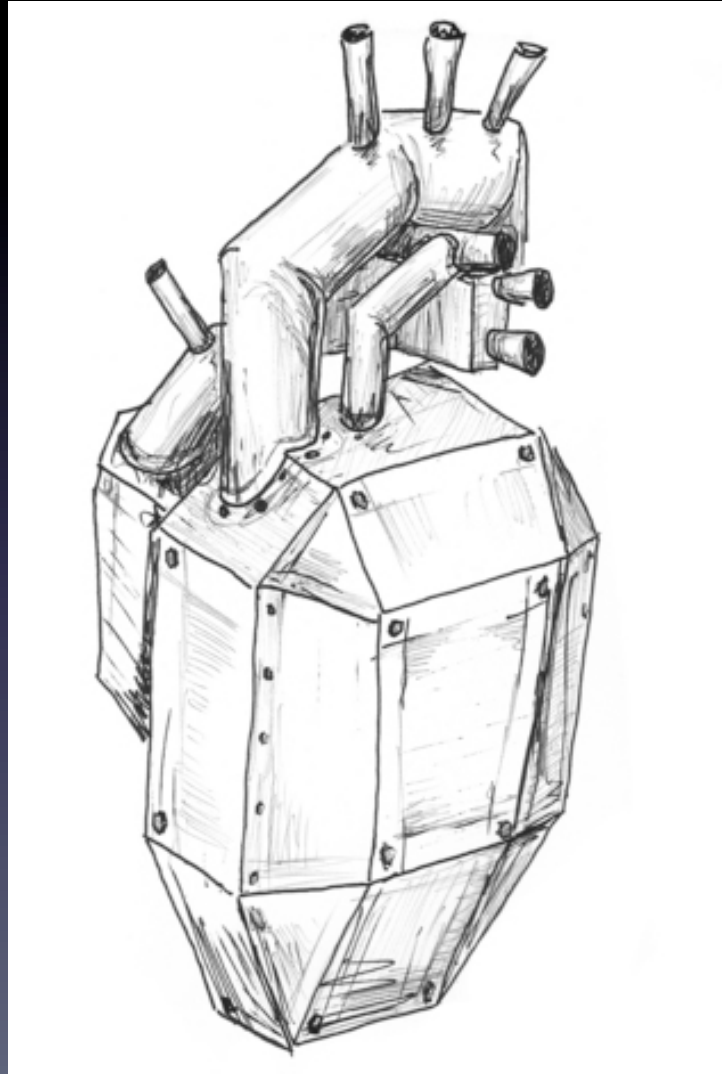
© 2002 GSM

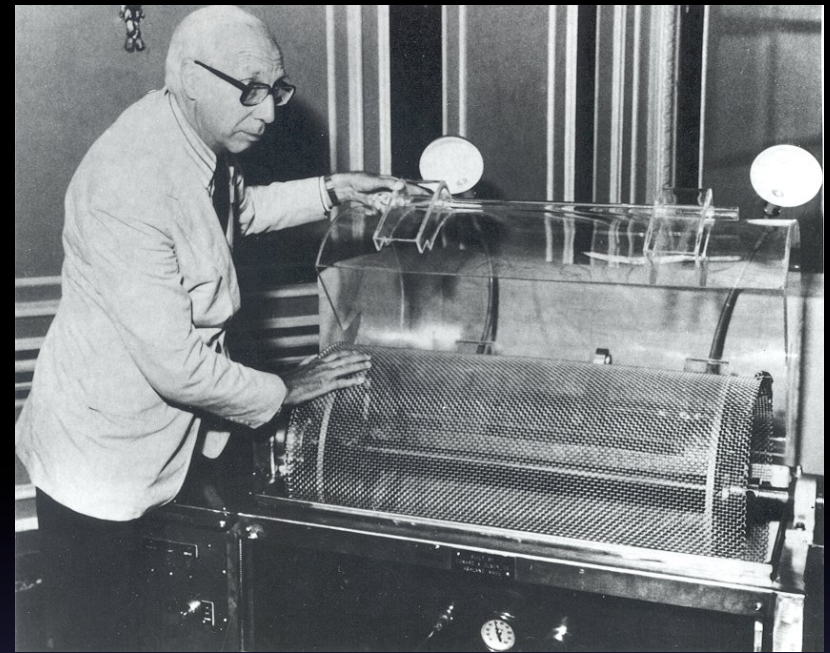
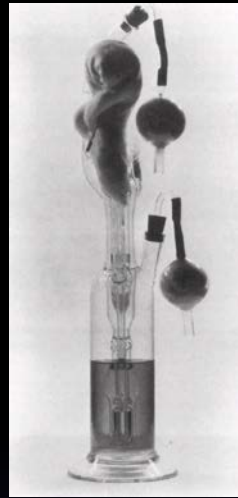


Christian Cabrol, 1968
 Christian Barnard, 1974
 Jean François Borel, 1972



Le cœur artificiel

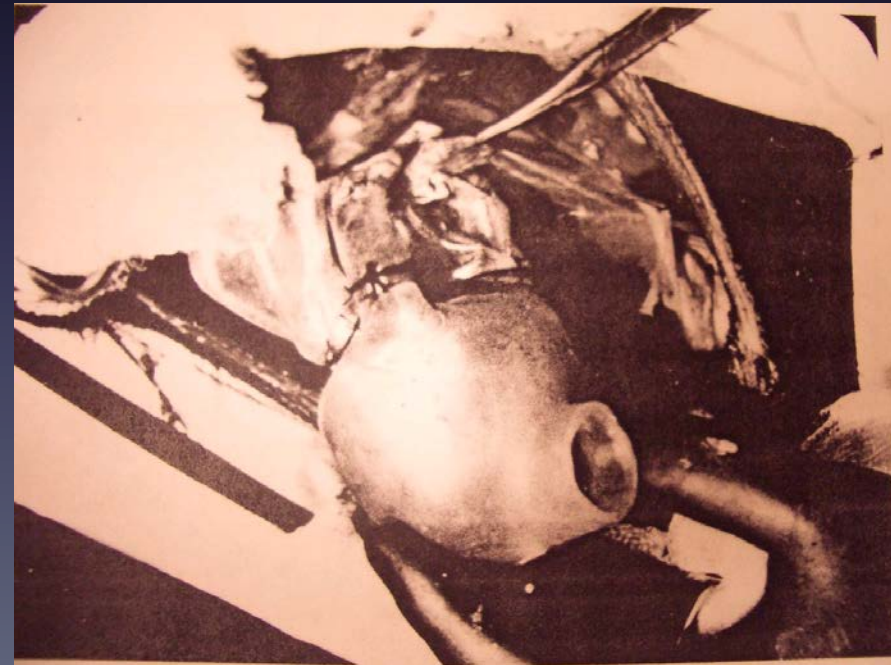




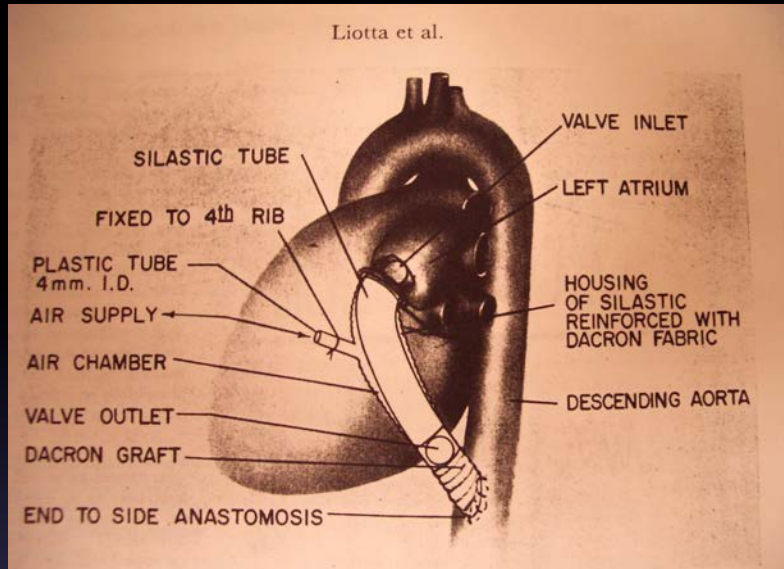
Julien César Le Gallois, 1913

A. Carrel, 1931

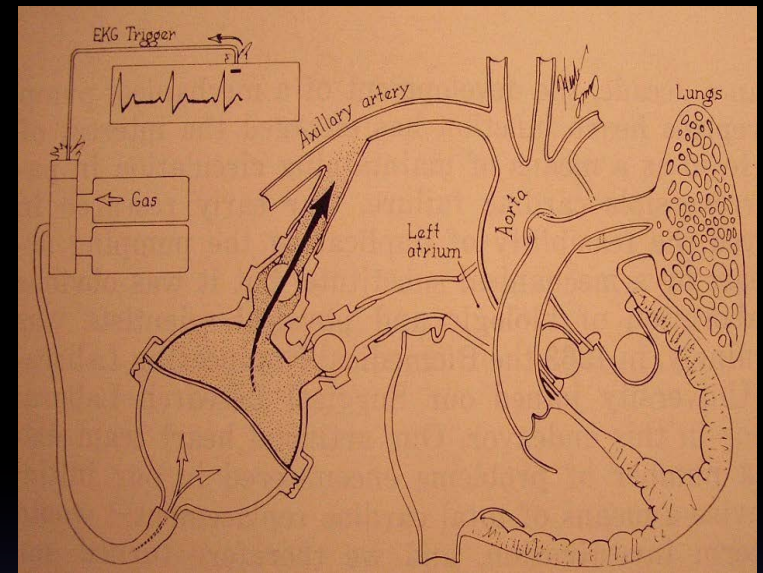
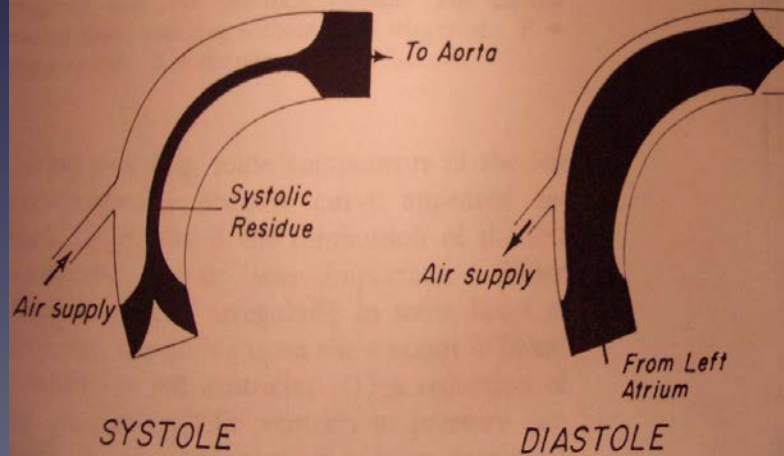
B. W.Kolf, 1957

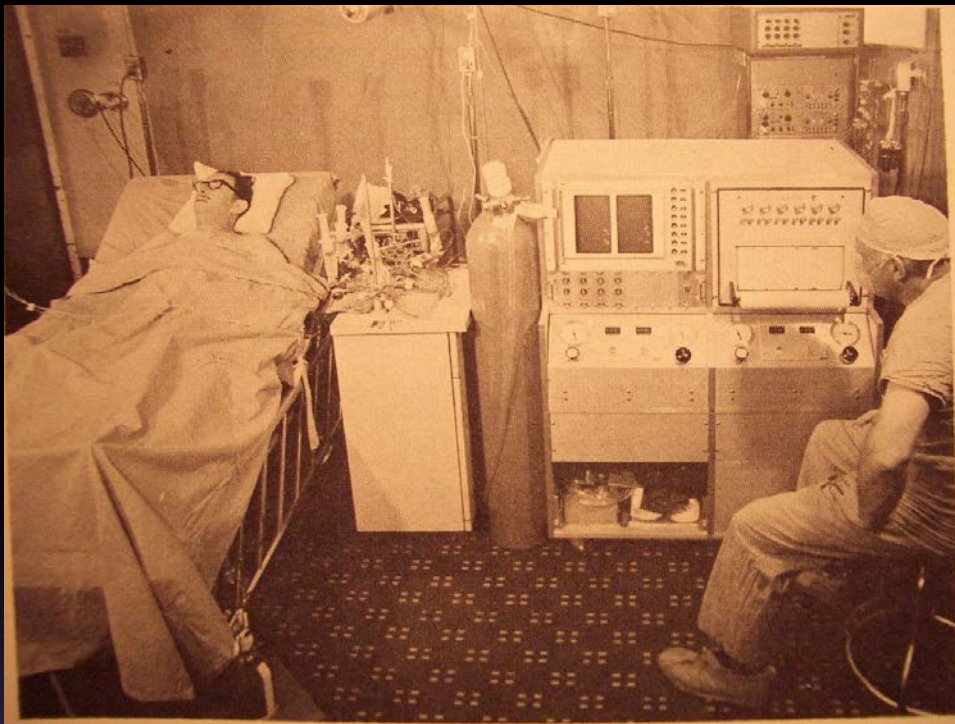


D. Liotta, 1963
M. De Bakey, 1966

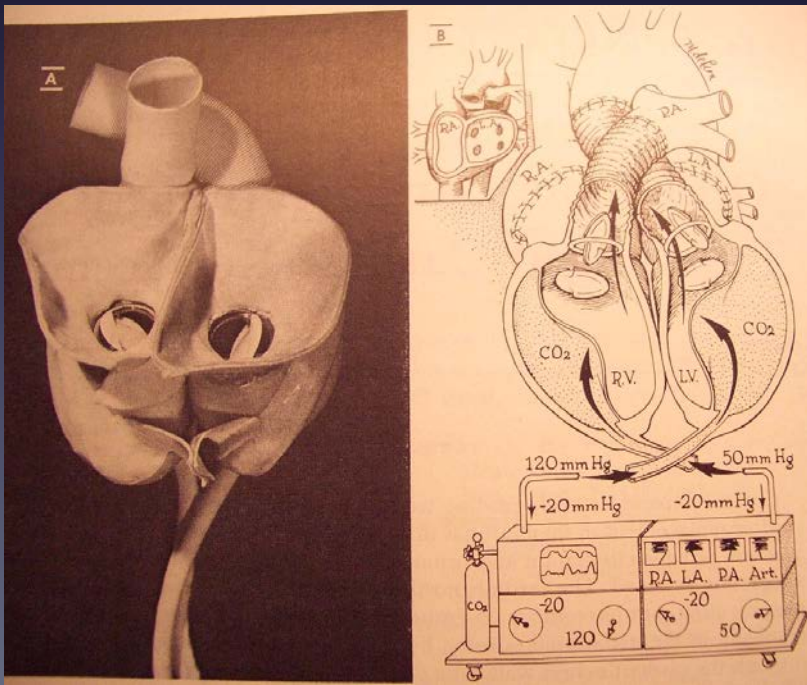


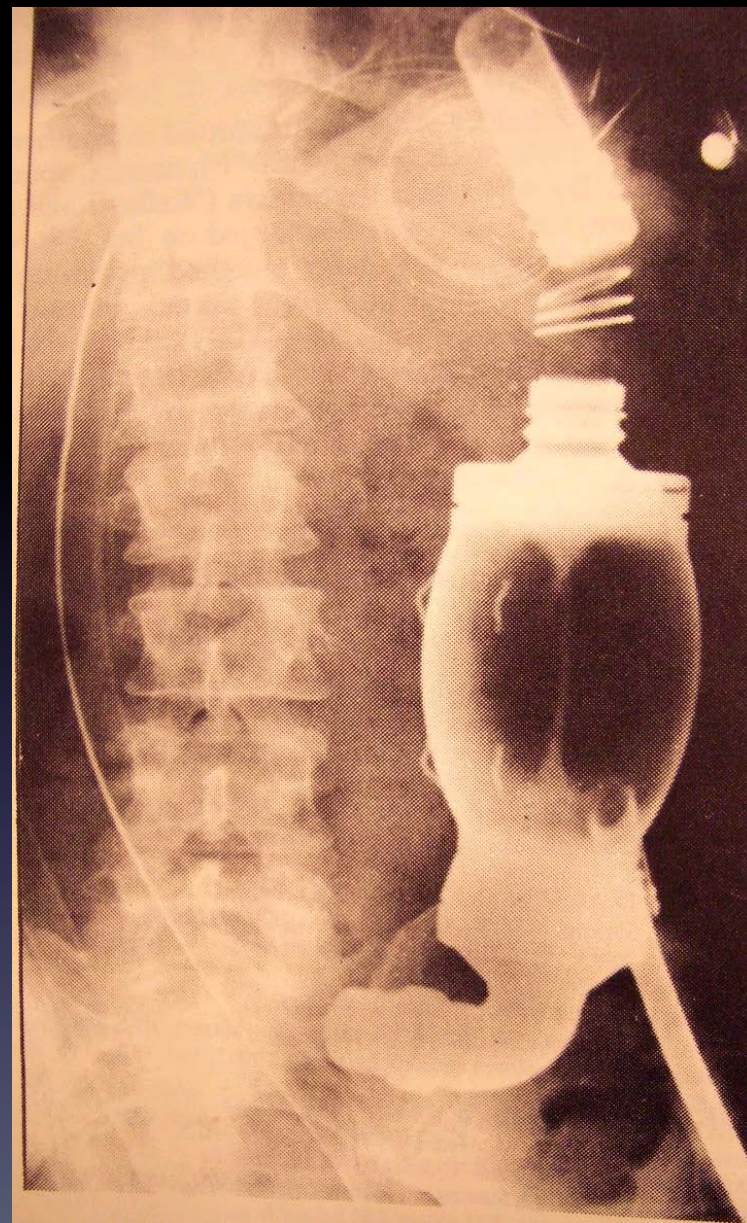
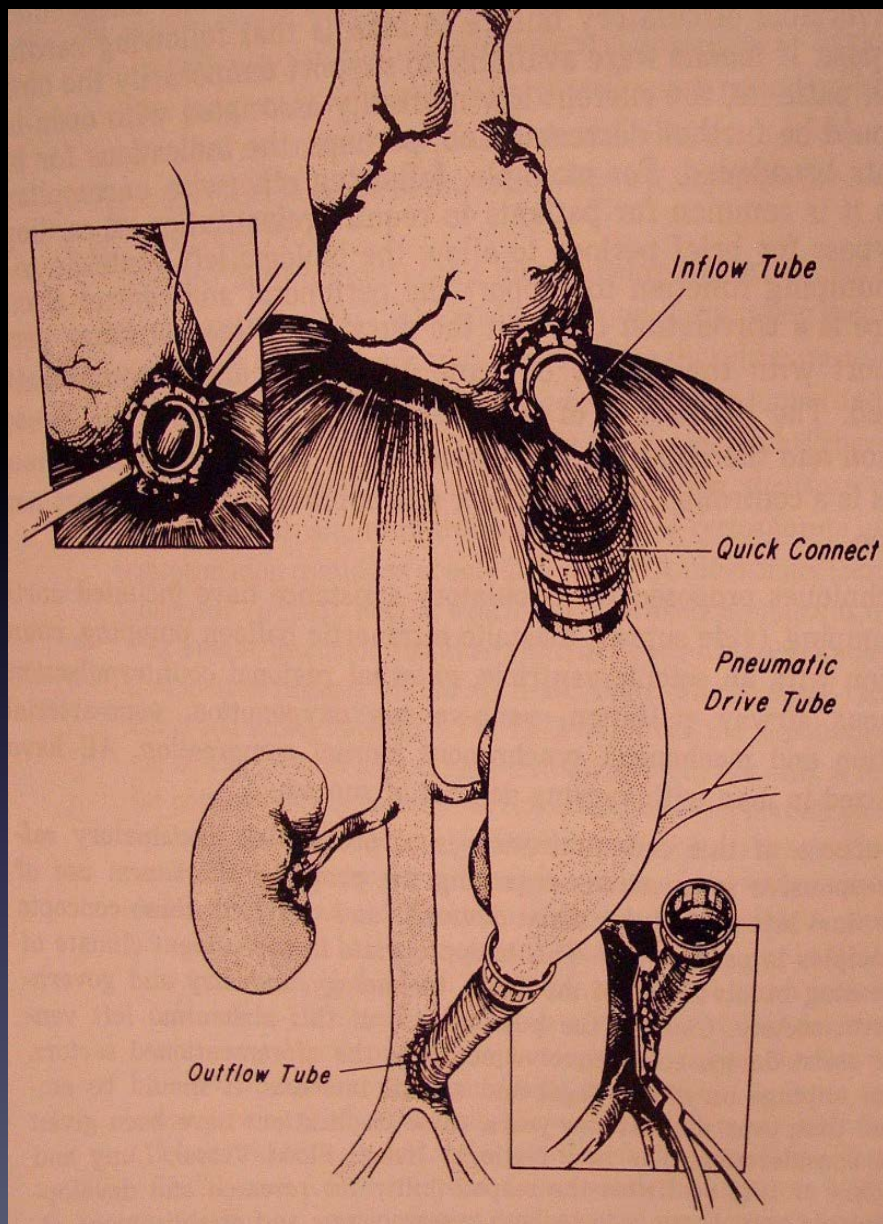
AIR DRIVEN SYSTEM TUBE TYPE PUMP
FOR INTRACORPOREAL CIRCULATION





Denton Cooley, 1969
(Liotta Heart en BTT)



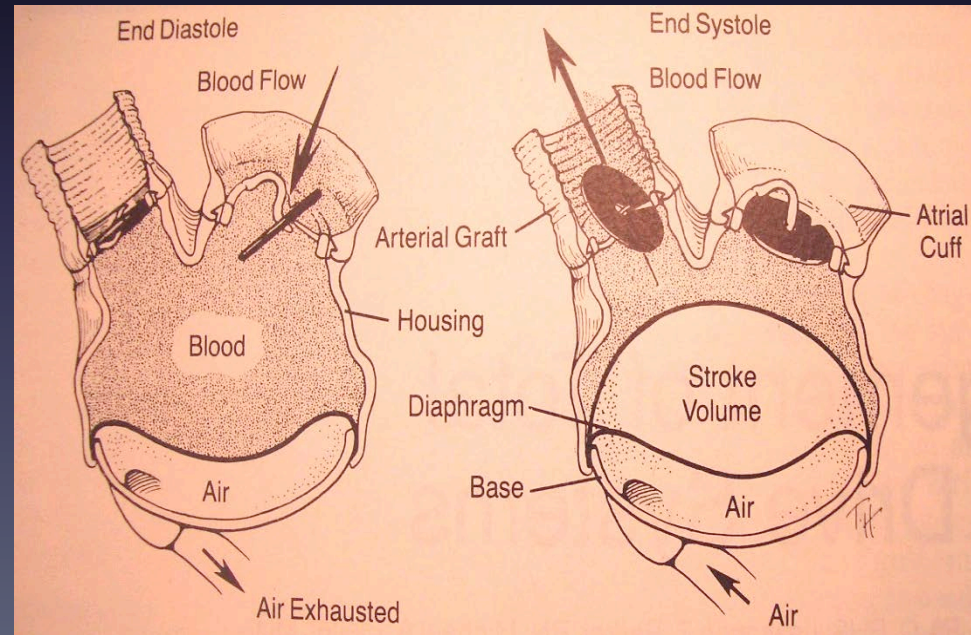
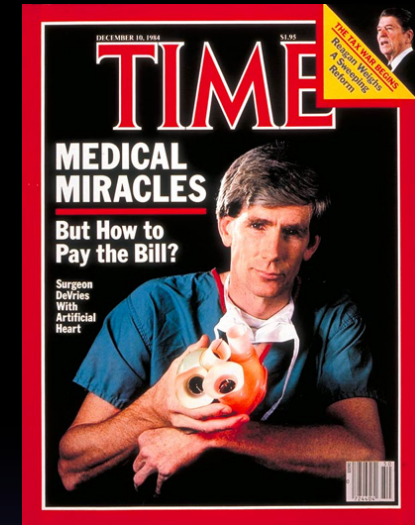
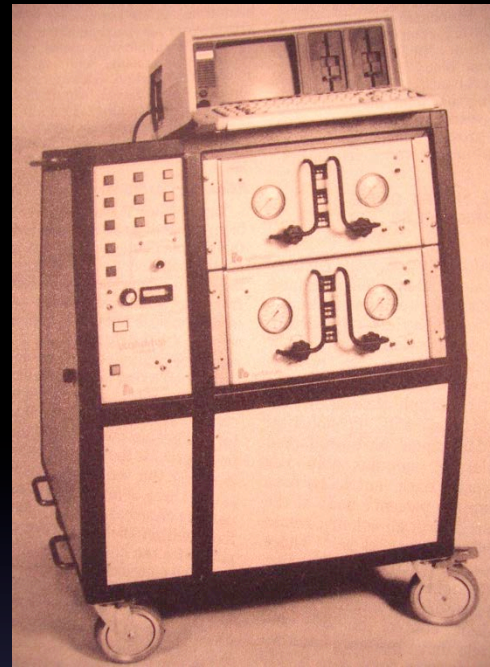
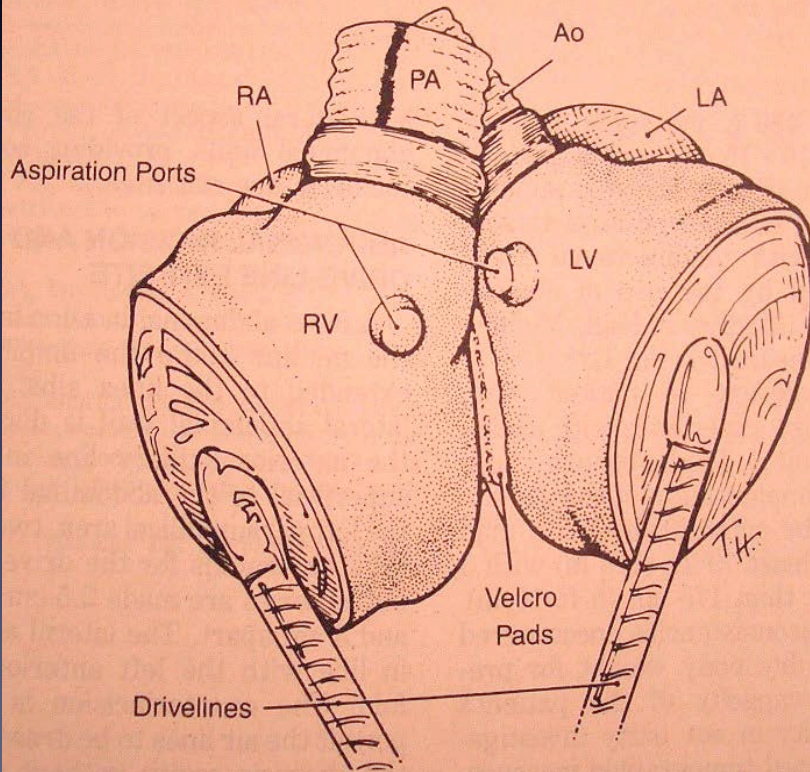
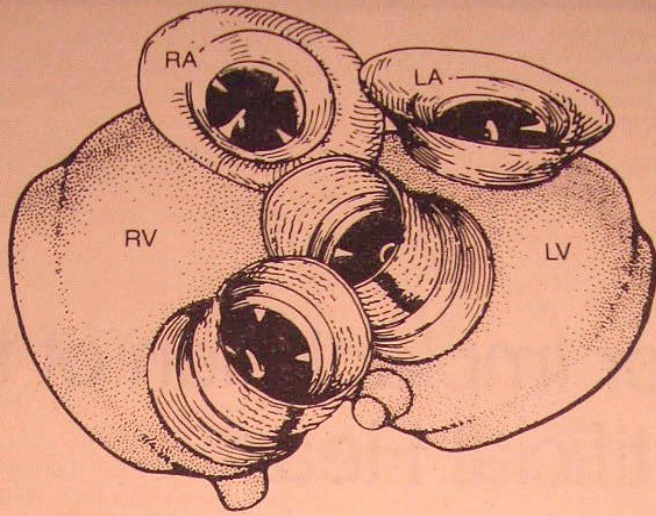


Norman, 1978: Lancet, Tx Cœur et rein

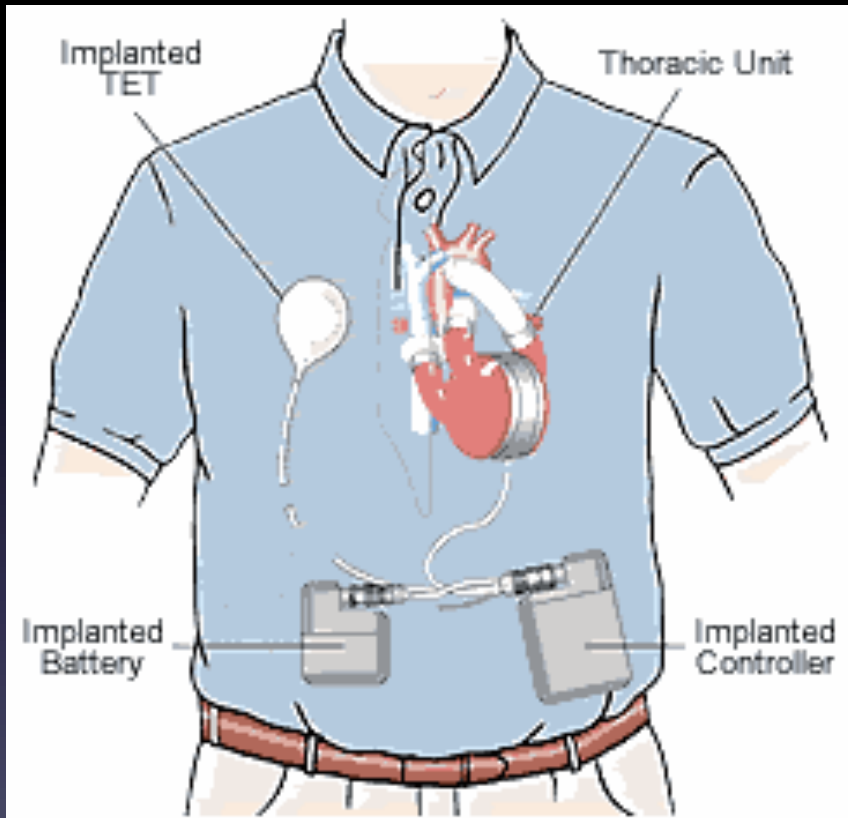
Le cas Barney Clark

« Sputnik du cœur artificiel? »





Cœur artificiel Abiocror



The AbioCor System has four main parts that are implanted inside the body.



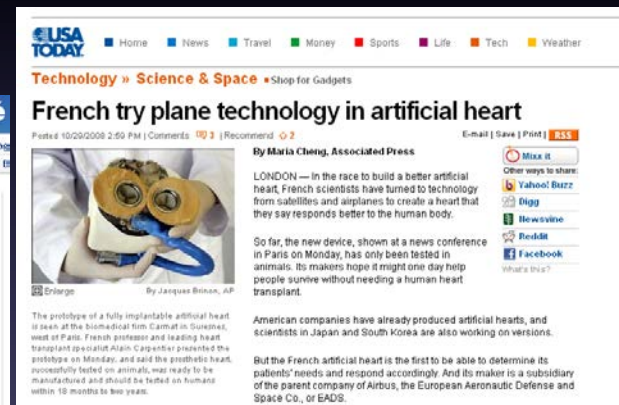
Quid de Carmat?



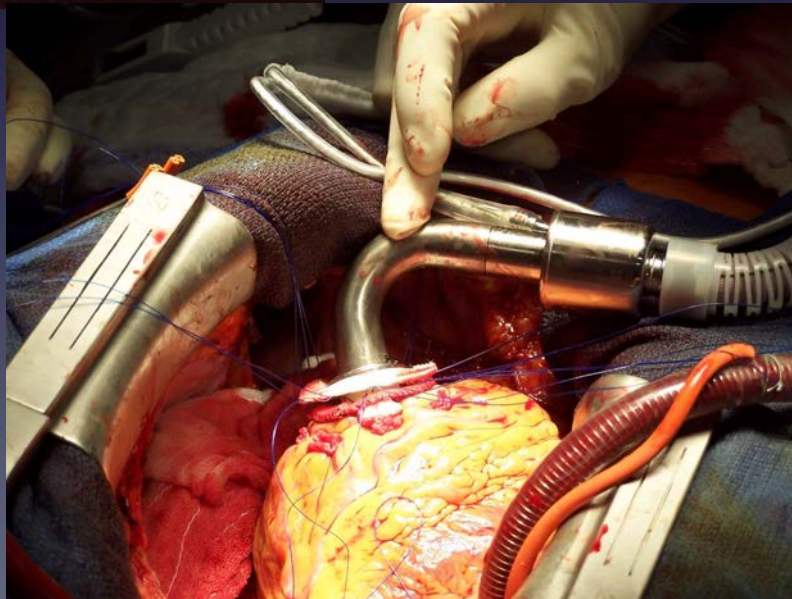
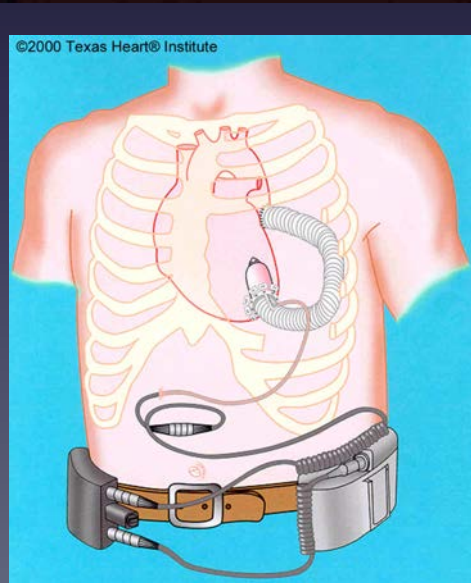
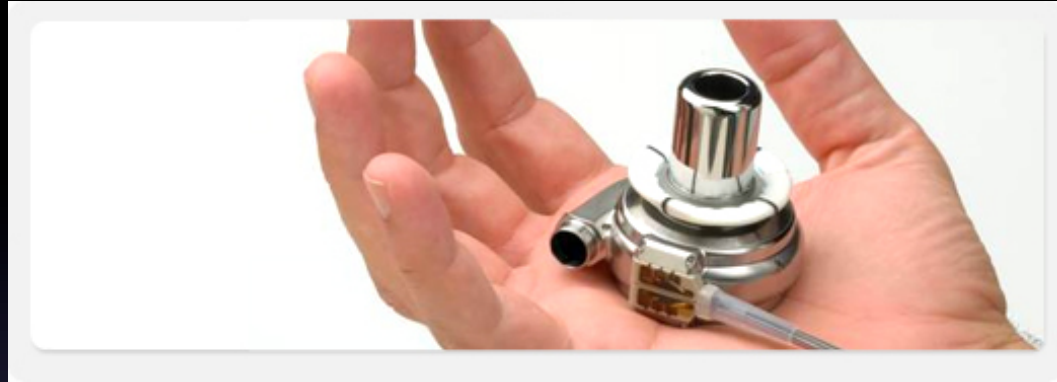
Révolution technologique...ou médiatique?



?



Assistances ventriculaires



"We" is more important than "I". In medicine, the advances are always the result of many efforts accumulated over the years".

René Favaloro

Merci de votre attention