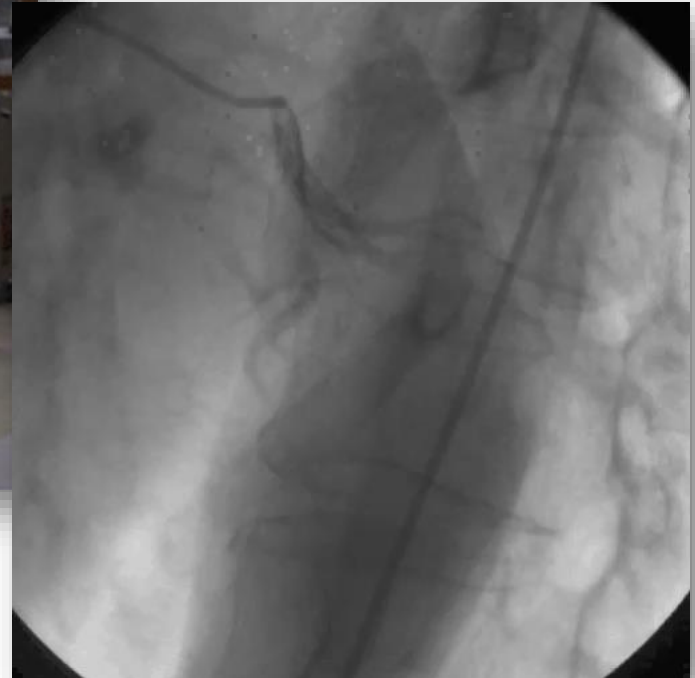


La technologie

L'humain

René Prêtre

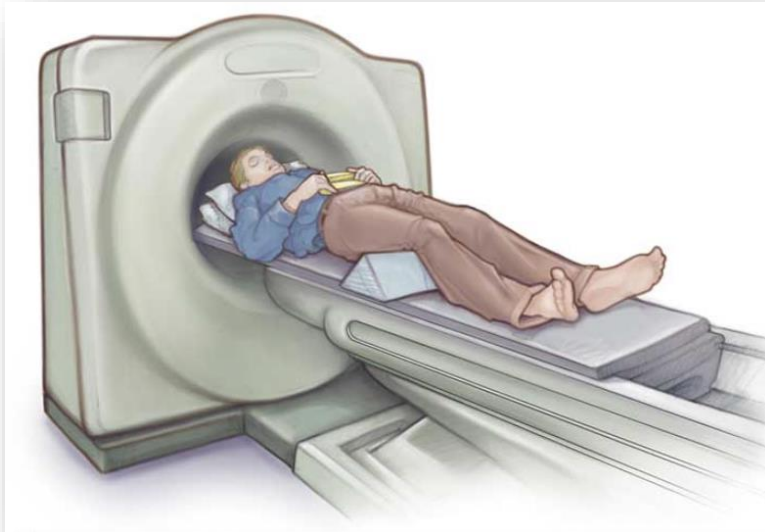
Le doux euphémisme



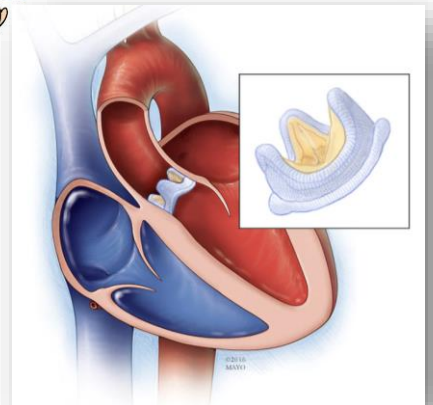
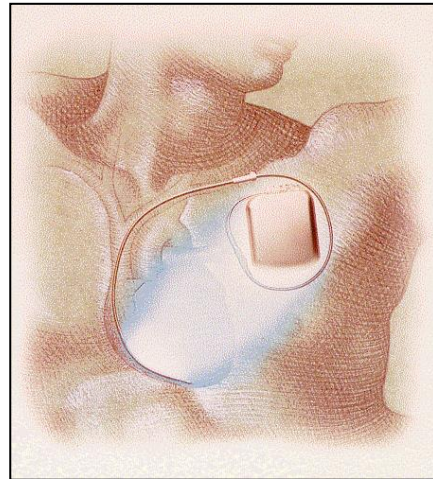
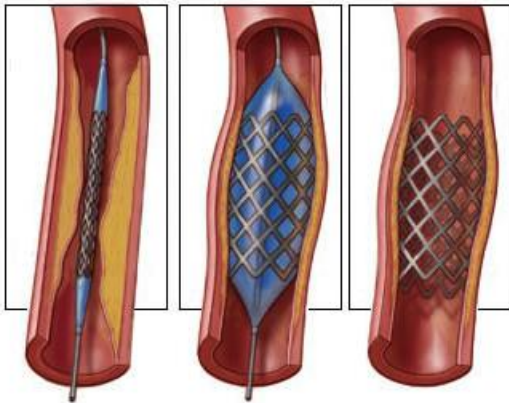
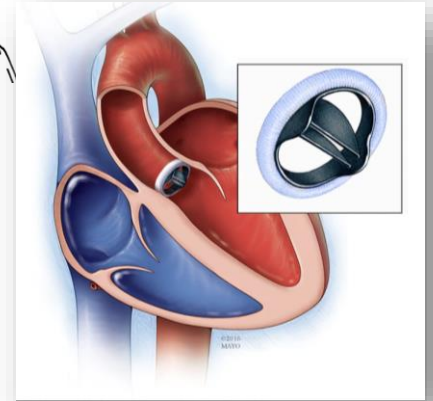
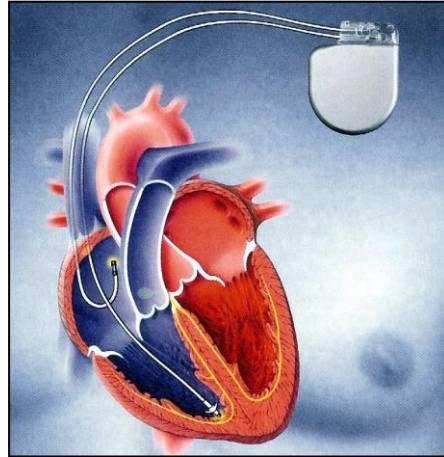
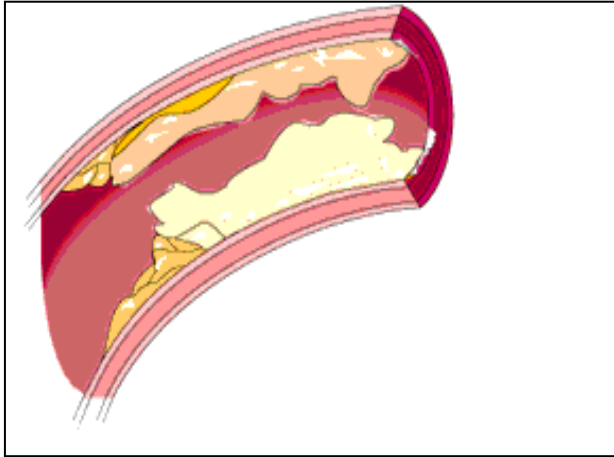
Le doux euphémisme



Le doux euphémisme



Le doux euphémisme



La chirurgie cardiaque

- *La dernière née*
(1950-ies)

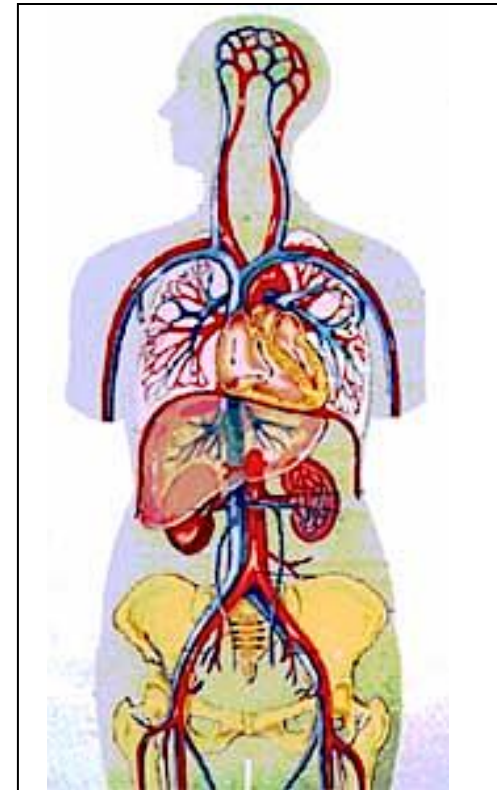
Pourquoi ???

- *Chirurgie*
> 300 ans



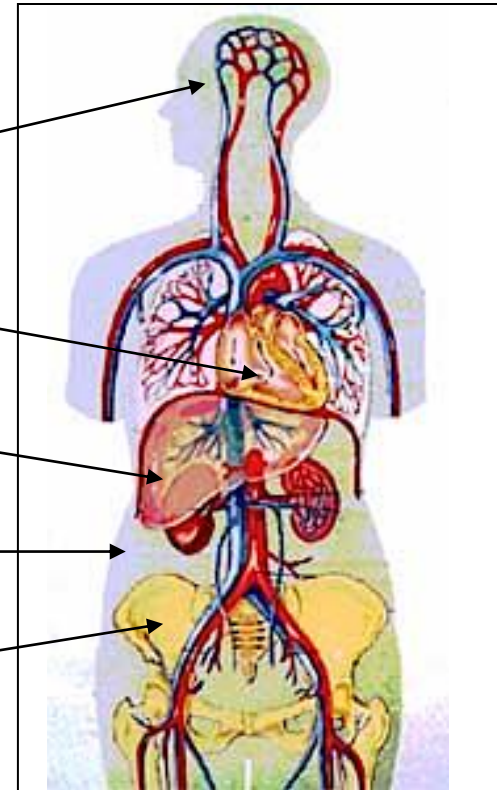
Thomas Eakins, 1844-1916
The clinic of Dr Gross, 1875

L'enfant terrible de la circulation sanguine

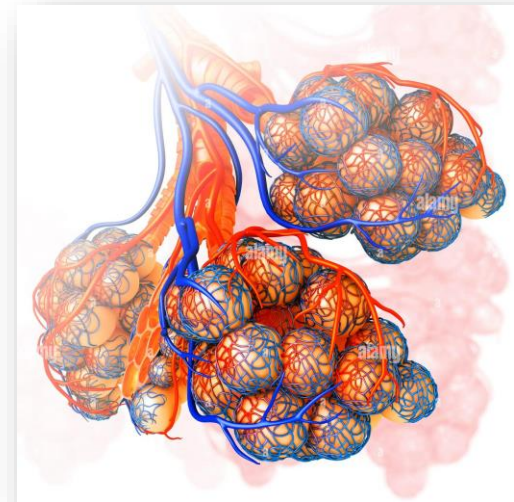
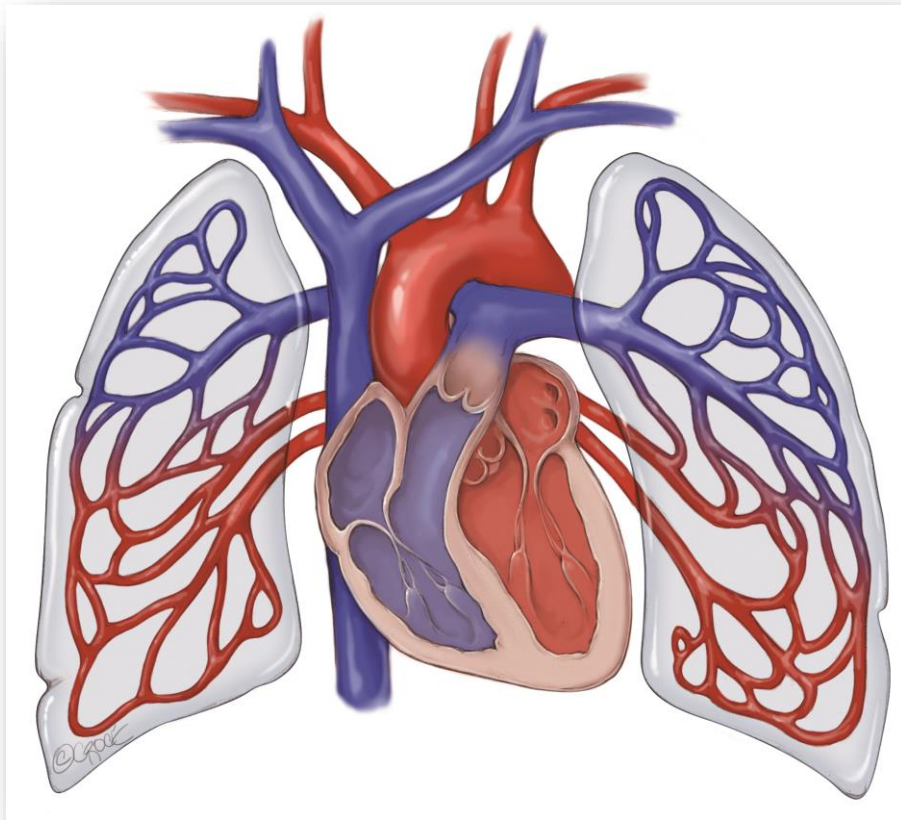


L'enfant terrible de la circulation

- *Cerveau* *4 min*
- *Cœur* *30 min*
- *Foie - rein* *1 h*
- *Muscles* *4 h*
- *Os – peau* *> 8 h*



Son acolyte

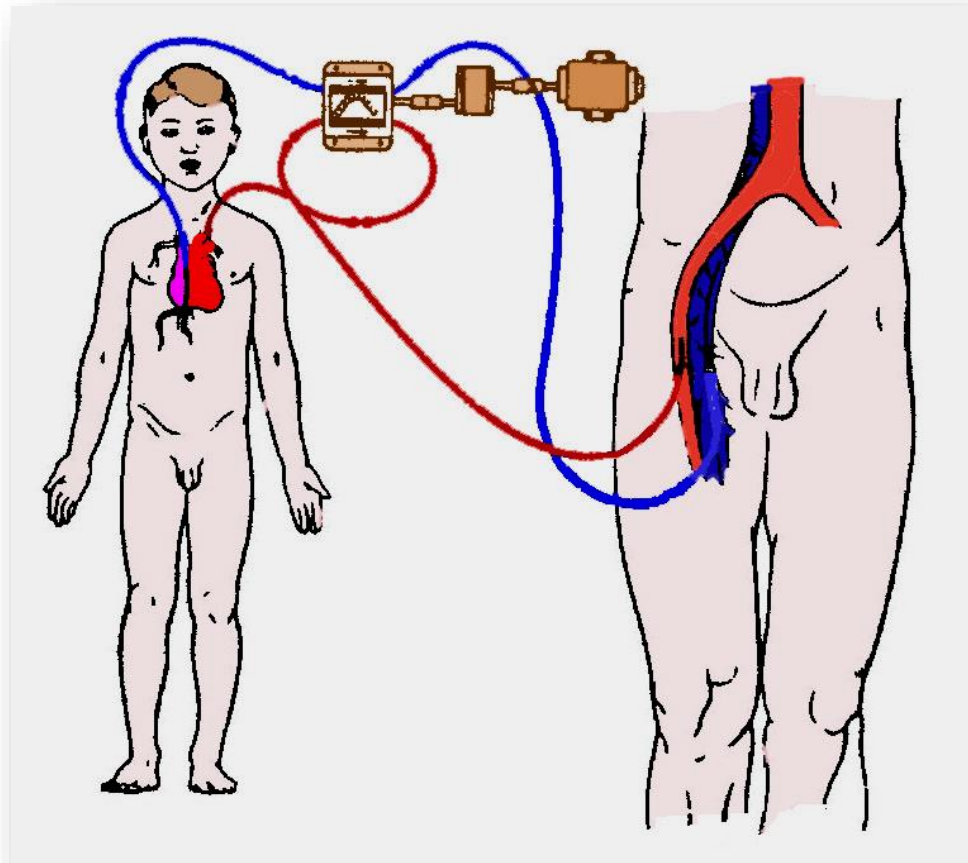


Son anatomie
Sa physiologie

Lères opérations

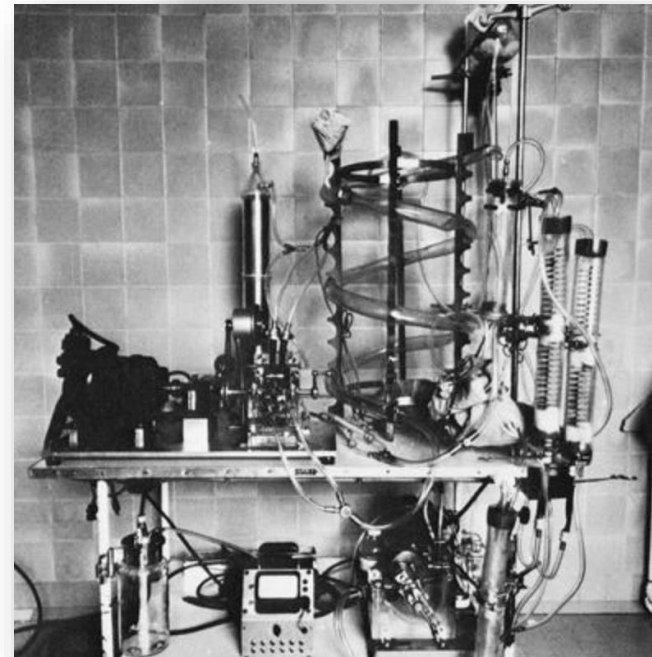
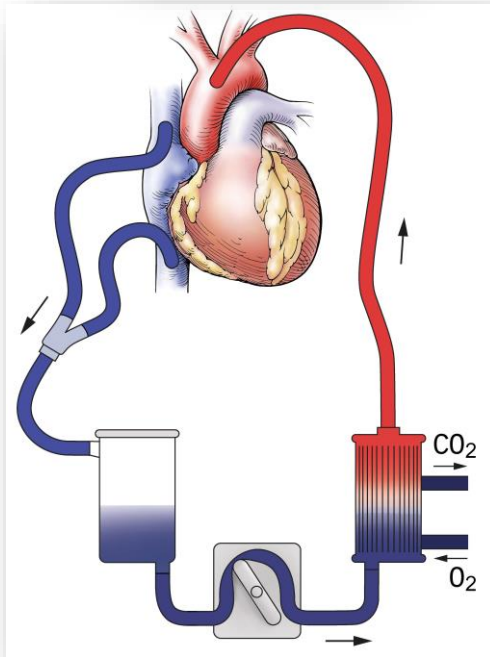
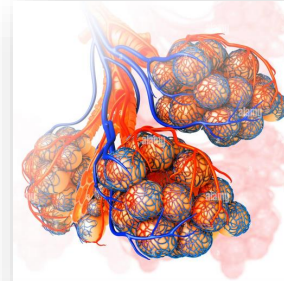


*Walton Lillehei
Minneapolis*



„Lillehey has developed an operation with a potentially 200 % mortality“

Maintenir la circulation sanguine ... oxygénée



La machine coeur-poumon

Découverte d'un nouveau continent



Les grandes premières



- *CIA et CIV*
- *Tétralogie de Fallot*
- *Canal atrio-ventriculaire*
- *Transposition des gros vaisseaux*



1954

1957

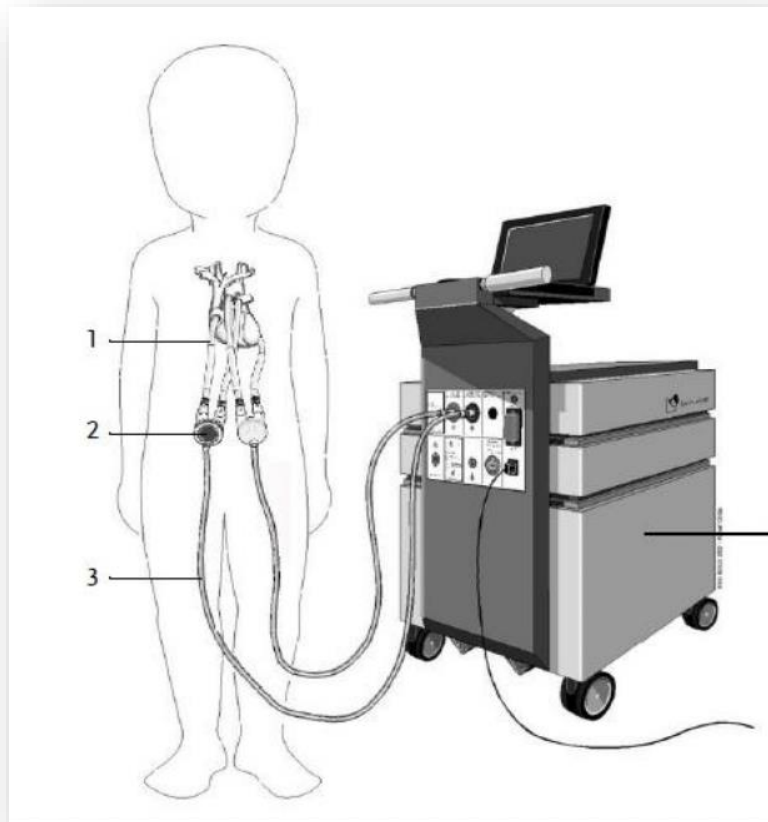
1957

1959



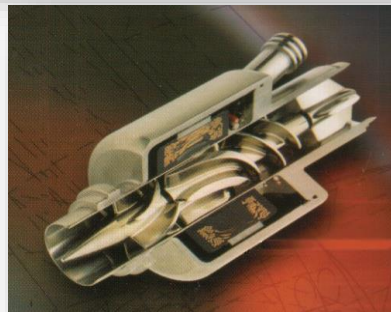
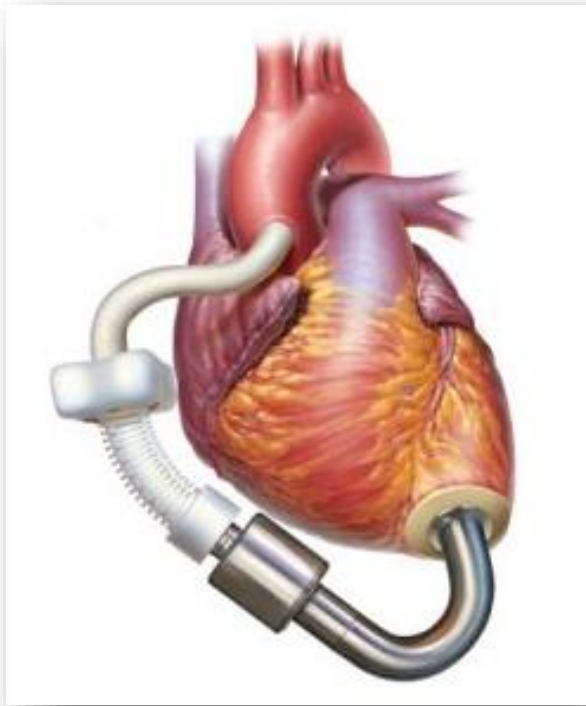
- *Remplacement de valves card.* *1960*
- *Bypass coronariens* *1967*
- *Transplantation card.* *1967*
- *Coeur artificiel* *1982*

Derniers développements

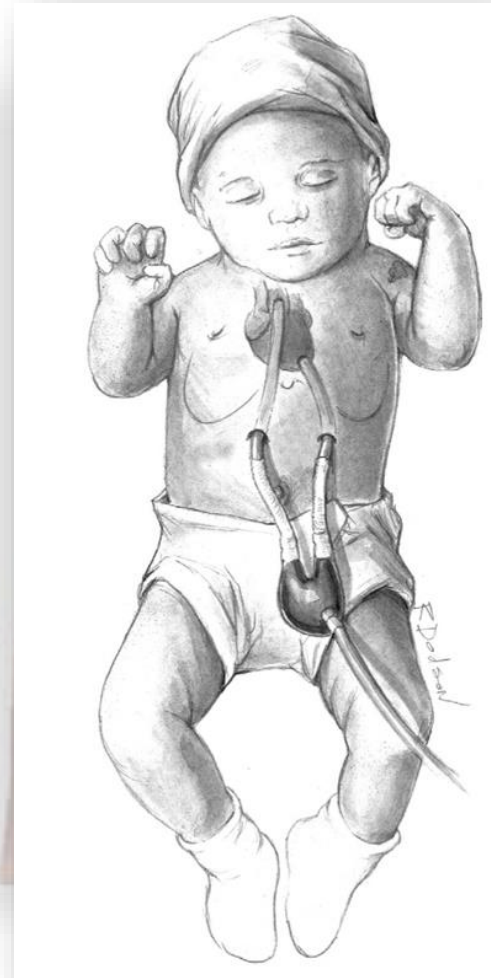
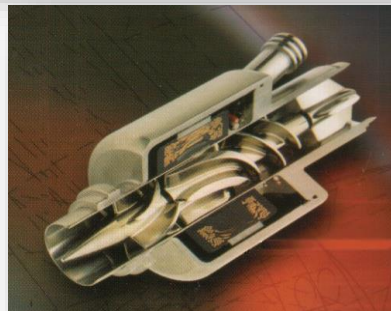
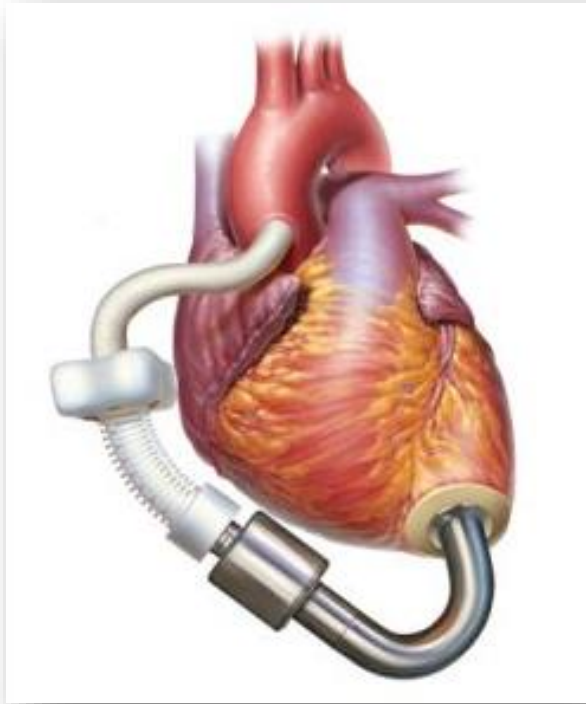




Coeur artificiel



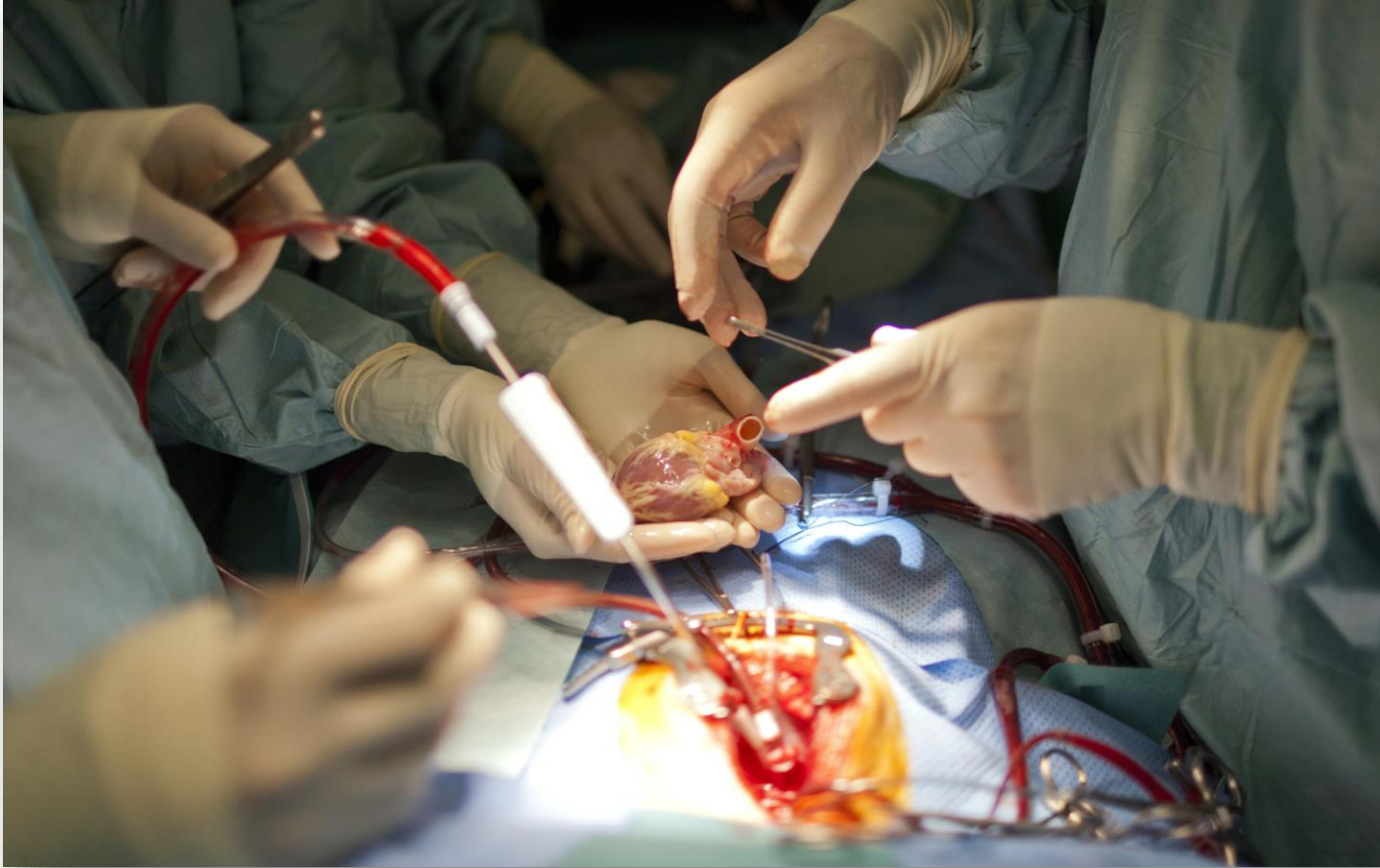
Coeur artificiel



Une opération cardiaque



L'opération mythique



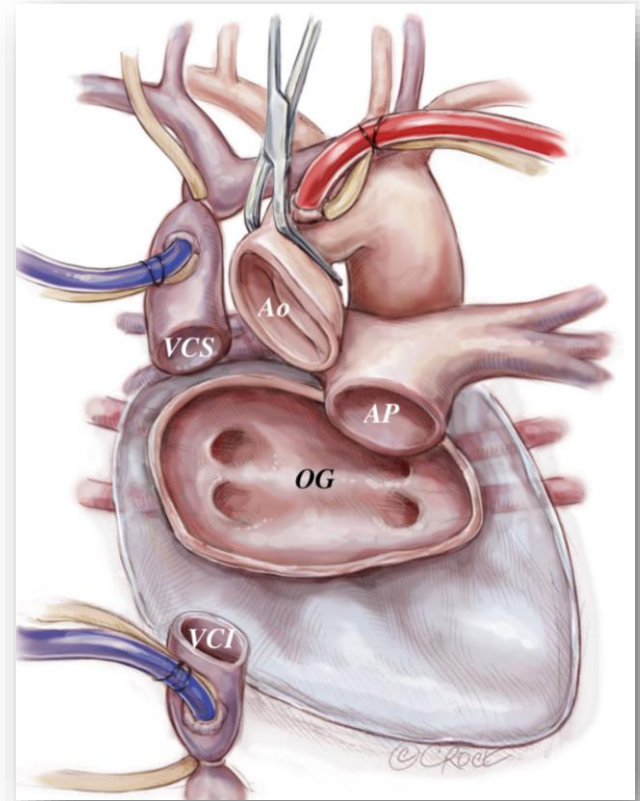
Timing

- *Deux équipes*
- *Déplacements rapides*
 - *< 3 heures*
- *Synchronisation capitale*
 - *Démarrage de l'opération du receveur*
 - *Dissection peut durer 1h 1h30*
 - *Explantation du cœur natif*
 - *Implantation « rapide » du nouveau coeur*

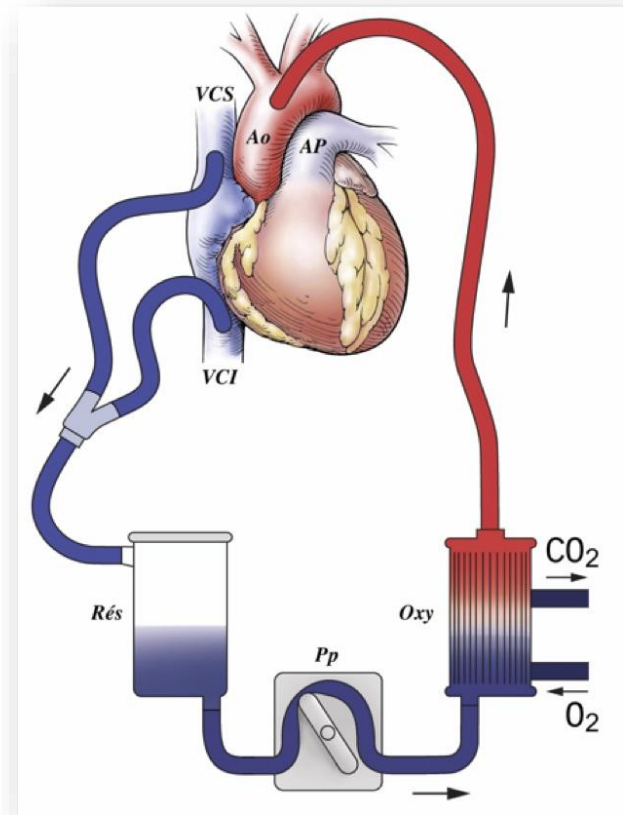
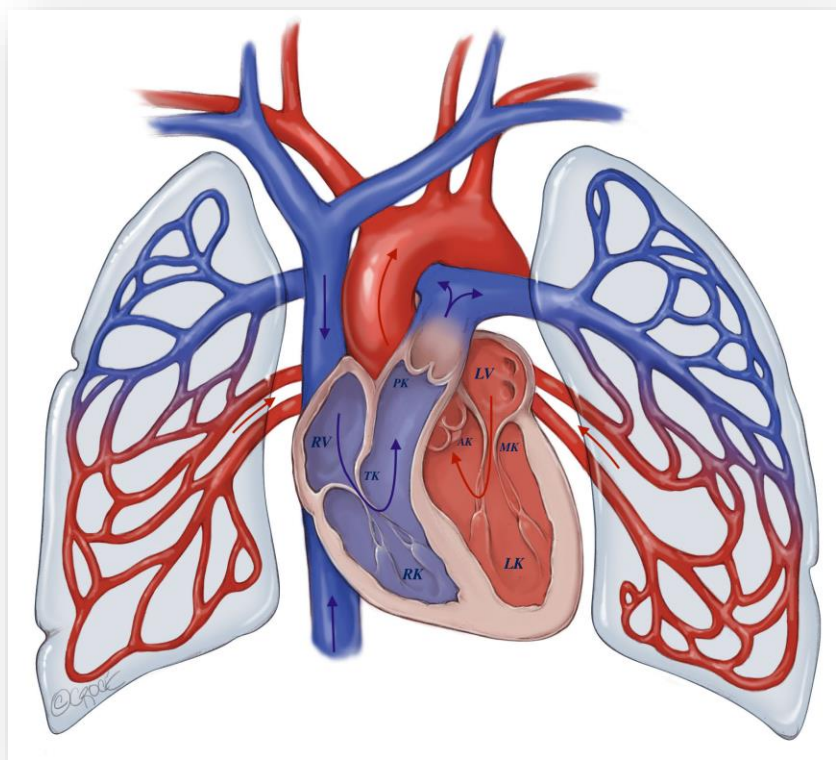


Timing

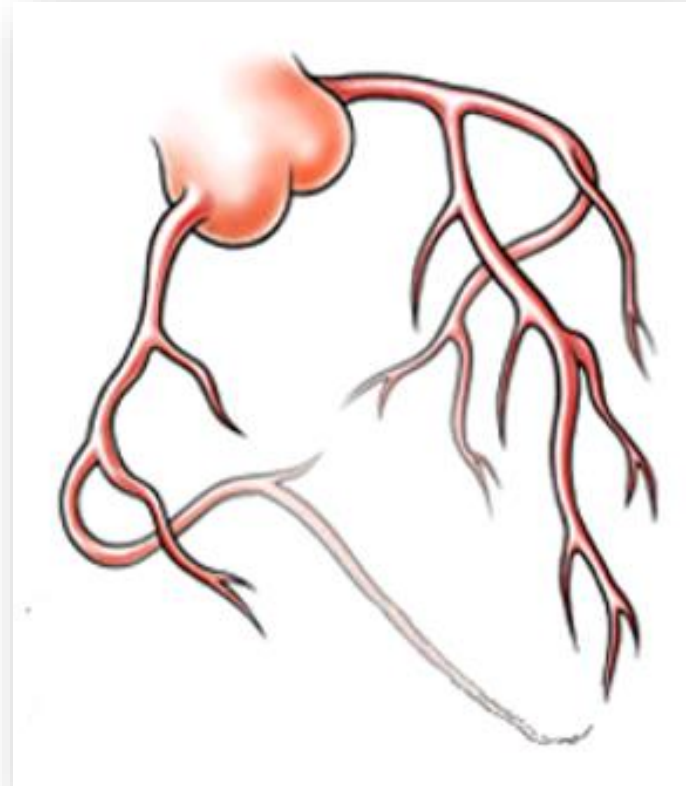
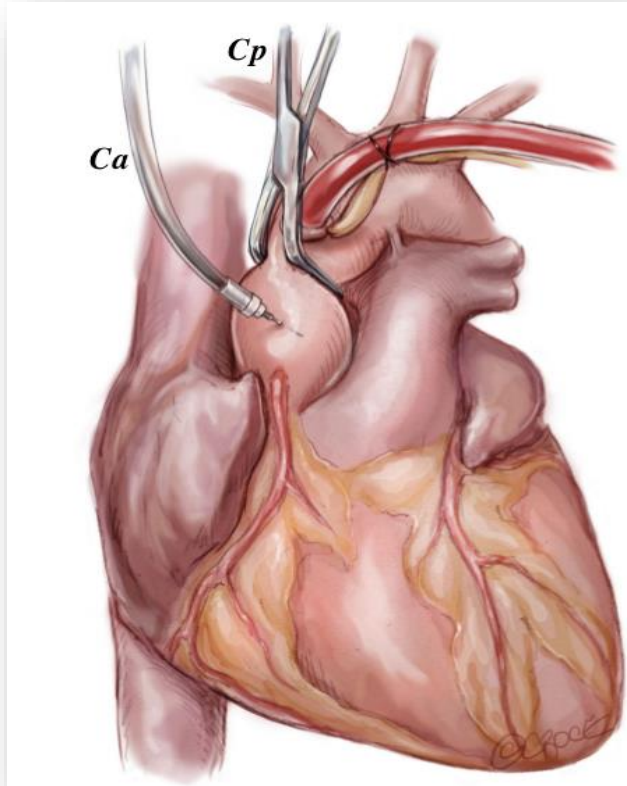
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La machine coeur-poumon

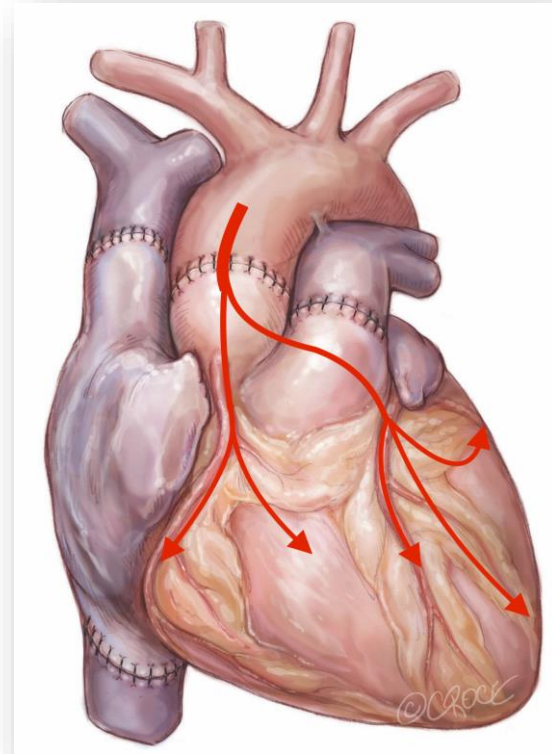
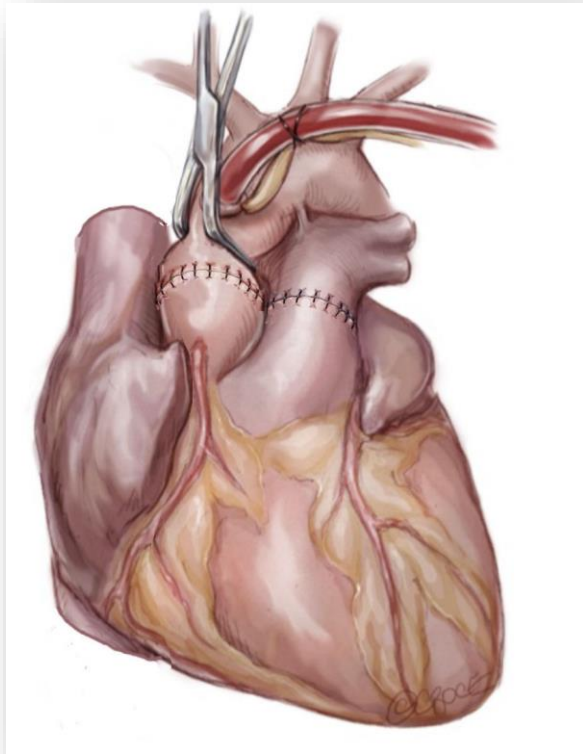


Arrêt - reprise cardiaque



Le clampage aortique

Arrêt - reprise cardiaque



Le déclampage aortique



Merci