



# Les Cardiopathies Congénitales

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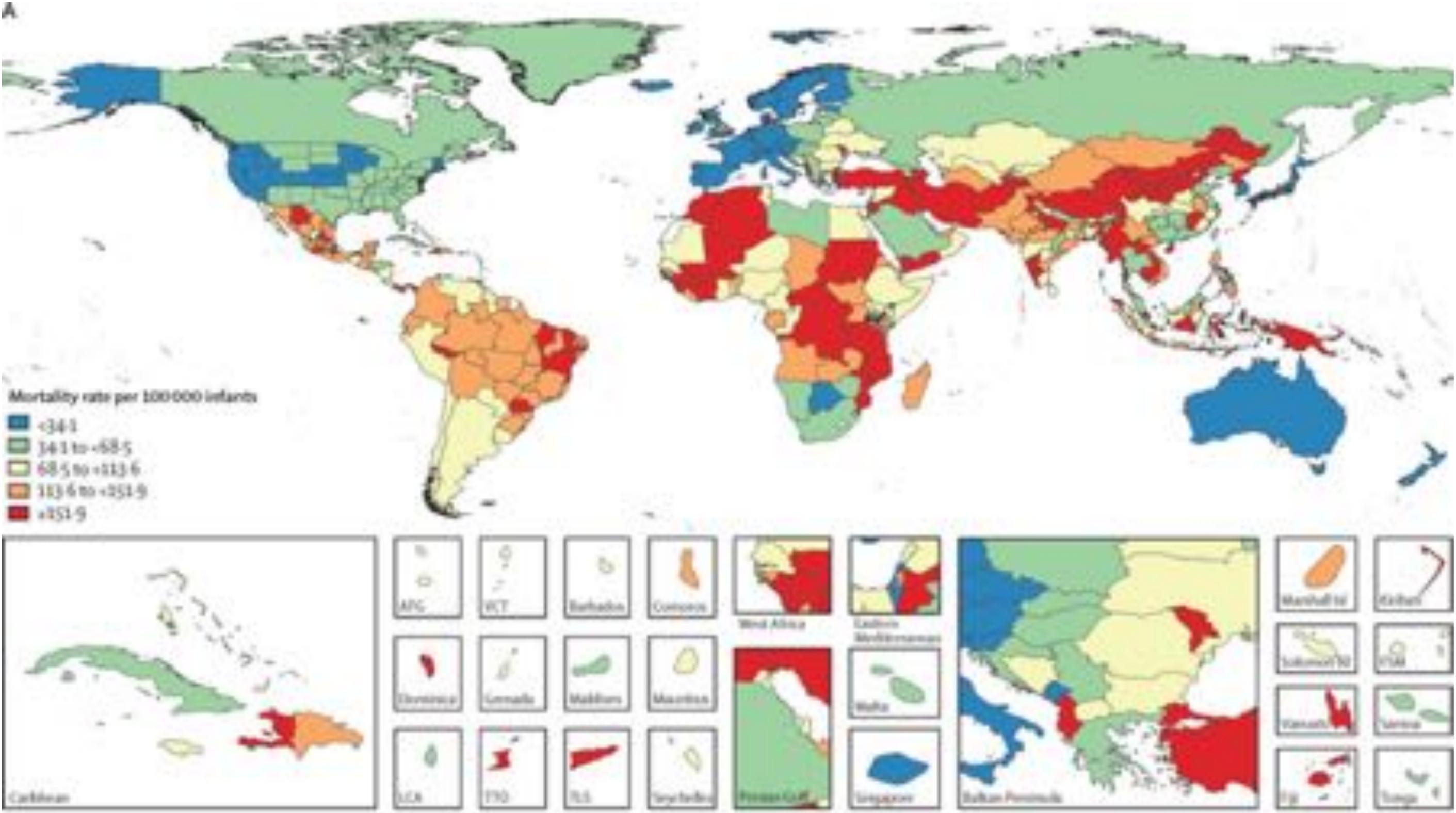
Centre de Référence Maladies Rares  
Malformations Cardiaques Congénitales Complexes-M3C  
Centre de Référence Maladies Rares  
Maladies Cardiaques Héritaires- CARDIOGEN



# Epidemiology of congenital heart diseases



# Mortality of congenital heart disease in children under 1 year of age in 2017

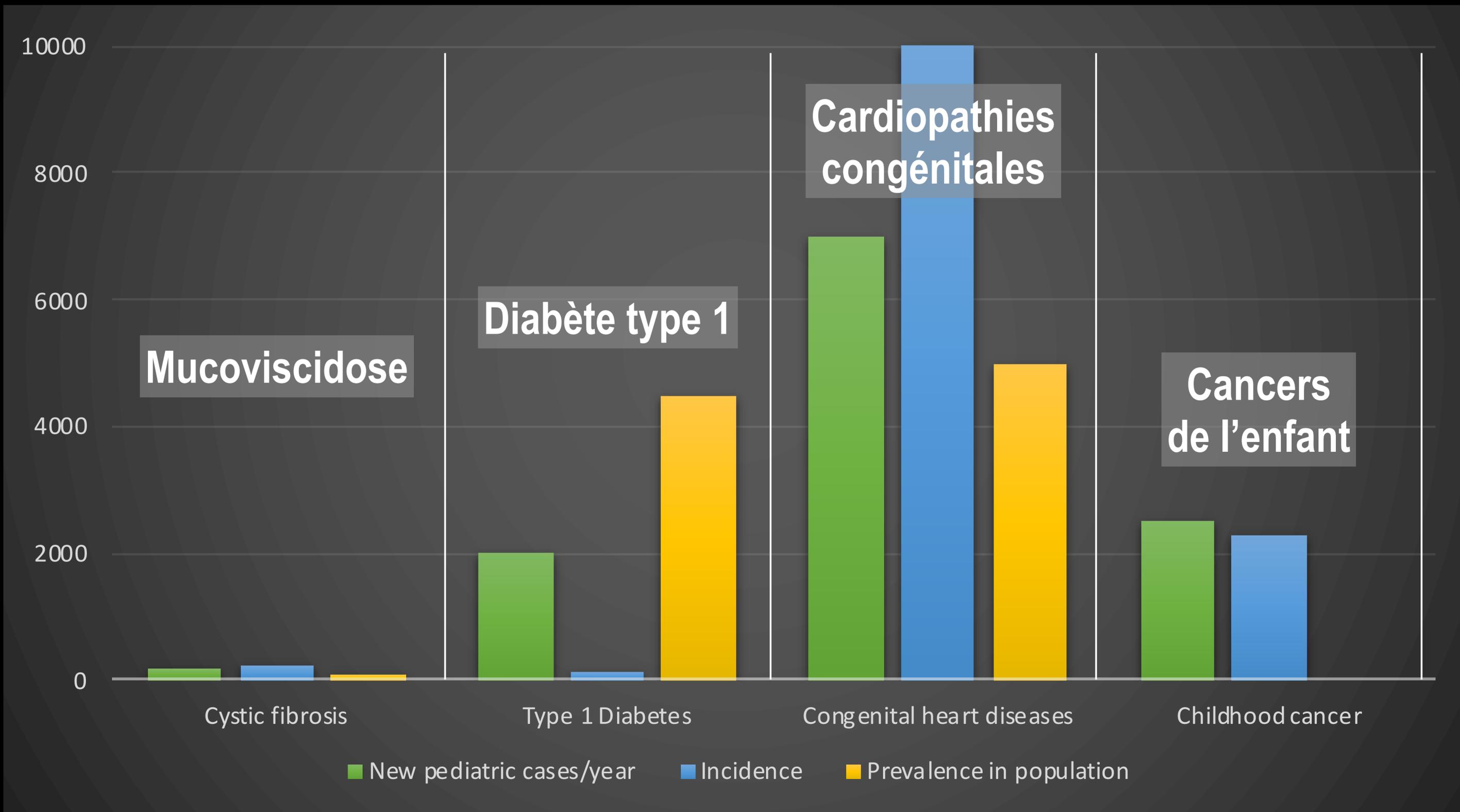


# Death rate and cause of death in children in 2017

	Global	Low SDI	Low-middle SDI	Middle SDI	High-middle SDI	High SDI
Neonatal preterm birth	1	2	1	1	1	1
Lower respiratory infections	2	1	2	2	5	10
Neonatal encephalopathy due to birth asphyxia and trauma	3	3	3	3	3	3
Other neonatal disorders	4	5	5	5	4	2
Diarrhoeal diseases	5	4	4	7	11	15
Neonatal sepsis and other neonatal infections	6	6	6	6	7	8
Congenital heart disease	7	8	7	4	2	4
Malaria	8	7	8	30	80	117
Syphilis	9	9	10	9	10	19
Other congenital anomalies	10	11	9	8	6	6
Protein-energy malnutrition	11	10	12	12	19	60
Haemolytic disease and other neonatal jaundice	12	15	11	16	19	37
Neural tube defects	13	11	16	13	12	12
Digestive congenital anomalies	14	17	15	11	8	11
Other meningitis	15	14	13	20	30	27
Whooping cough	16	12	17	19	33	53
Sudden infant death syndrome	17	16	18	15	13	5
HIV/AIDS resulting in other diseases	18	18	14	17	22	39
Pulmonary aspiration and foreign body in airway	19	22	22	10	9	9
Drug-susceptible tuberculosis	20	19	20	23	44	78
Measles	21	20	21	22	40	86
Influenza type B meningitis	22	23	19	25	23	30
Paralytic ileus and intestinal obstruction	23	25	23	14	17	21
Other unspecified infectious diseases	24	22	27	29	18	20
Tetanus	25	21	24	16	68	97

Death rate per 100 000 children





## Le réseau M3C

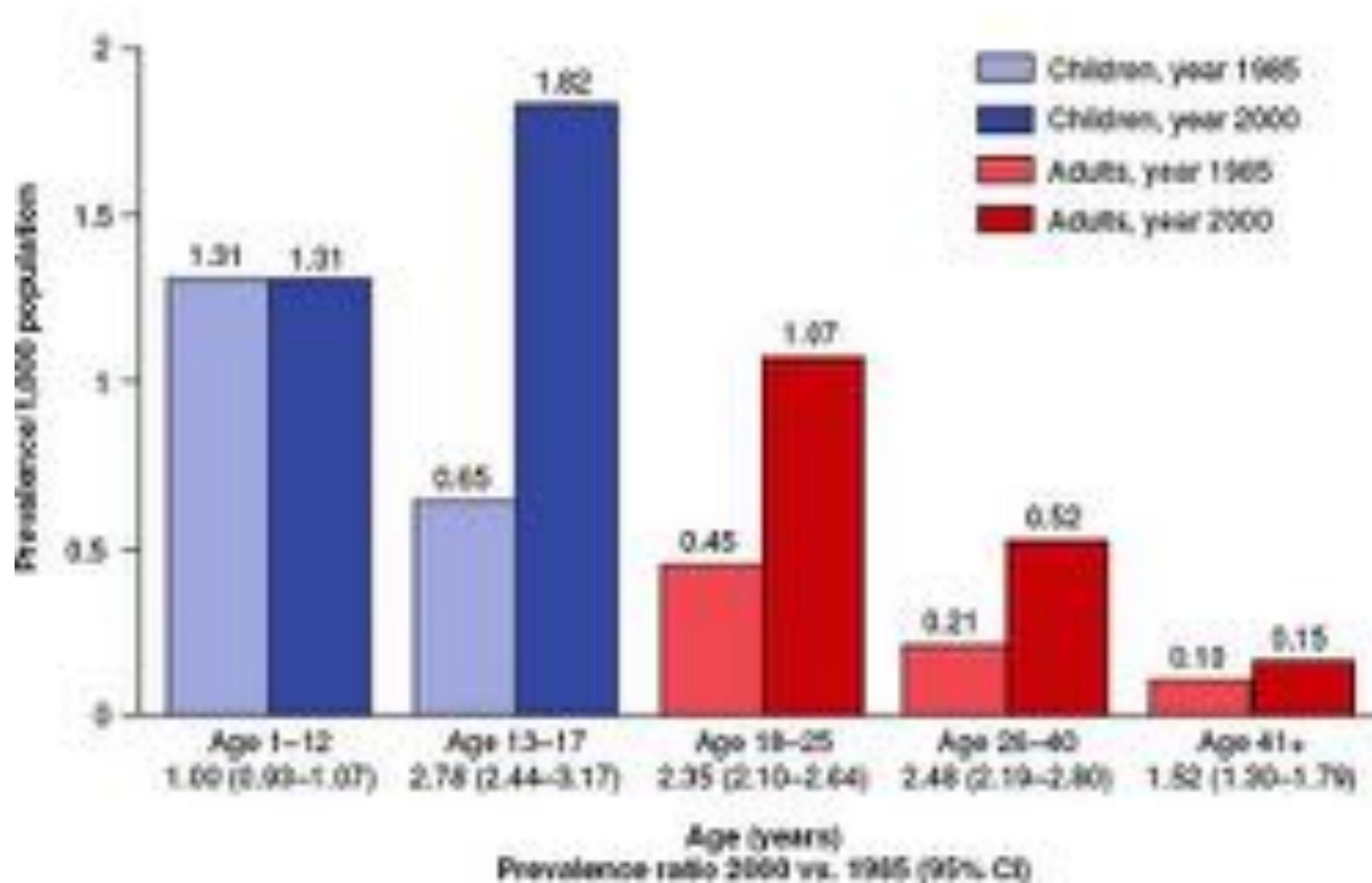




**Parcours de soins des patients ayant une cardiopathie congénitale**

# Change in prevalence of congenital heart disease from 1990 to 2000

*among patients of different age groups*

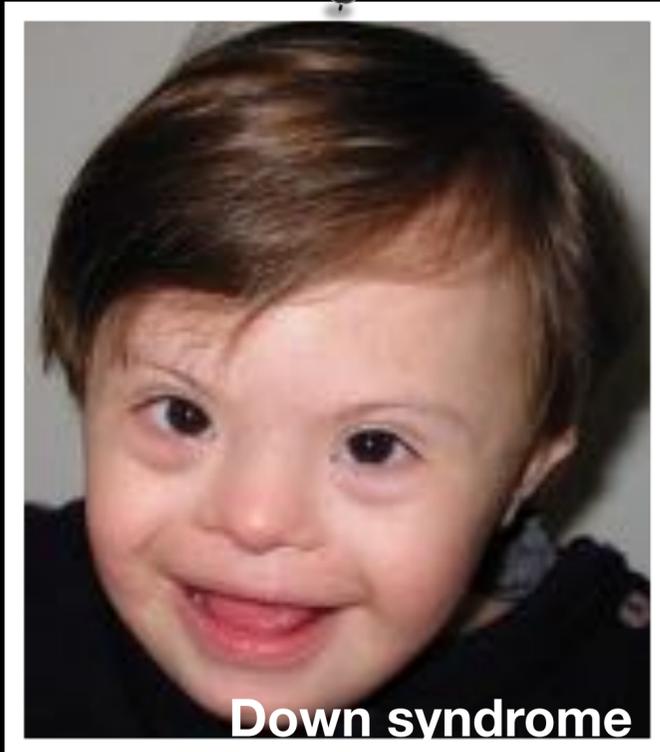




# Les Cardiopathies Congénitales simples et complexes

# Associations extra cardiaques

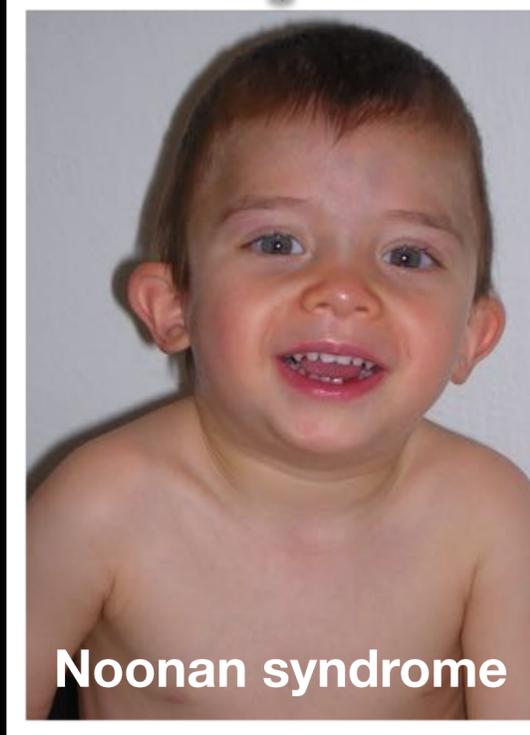
1/6



Down syndrome



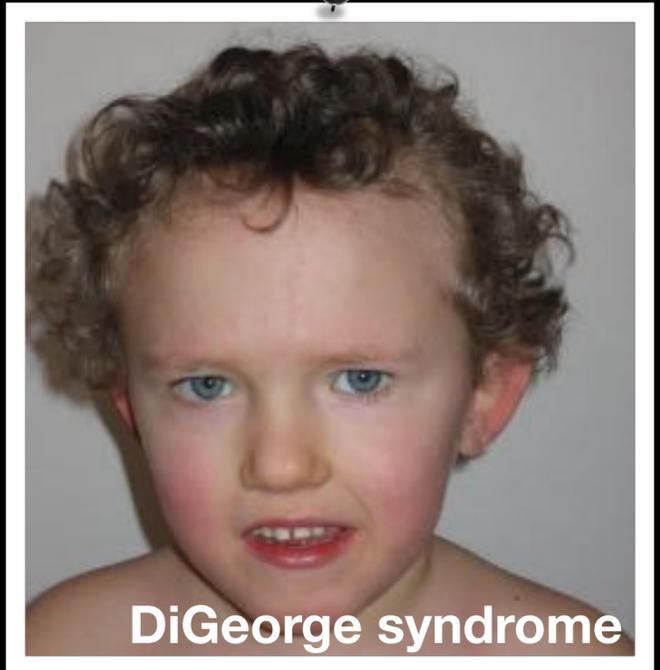
Turner syndrome



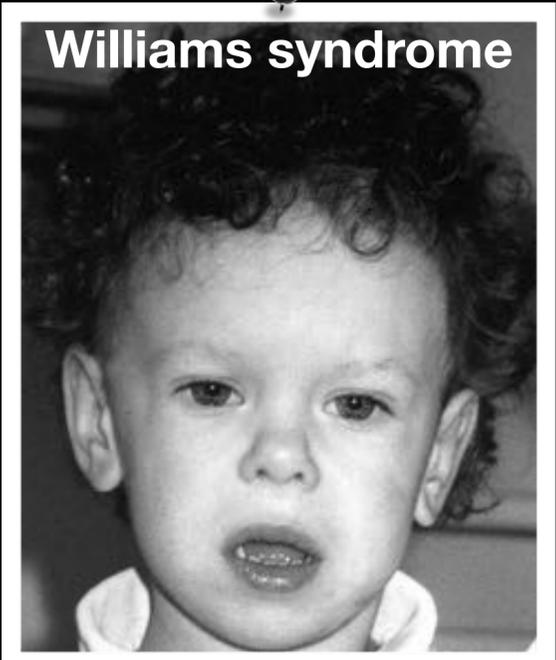
Noonan syndrome



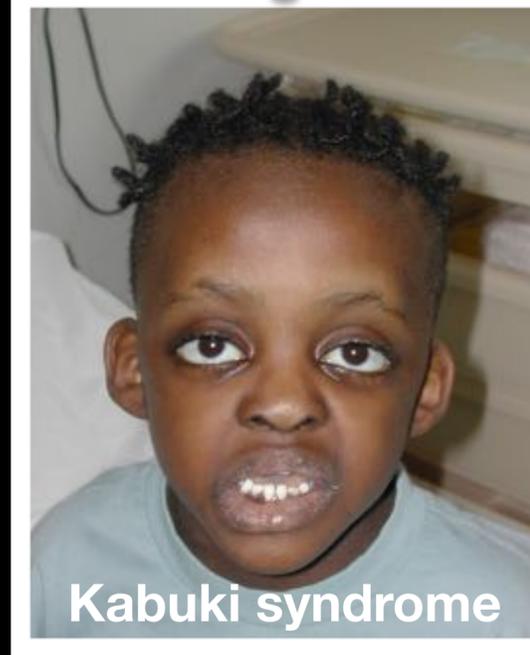
Marfan syndrome



DiGeorge syndrome



Williams syndrome

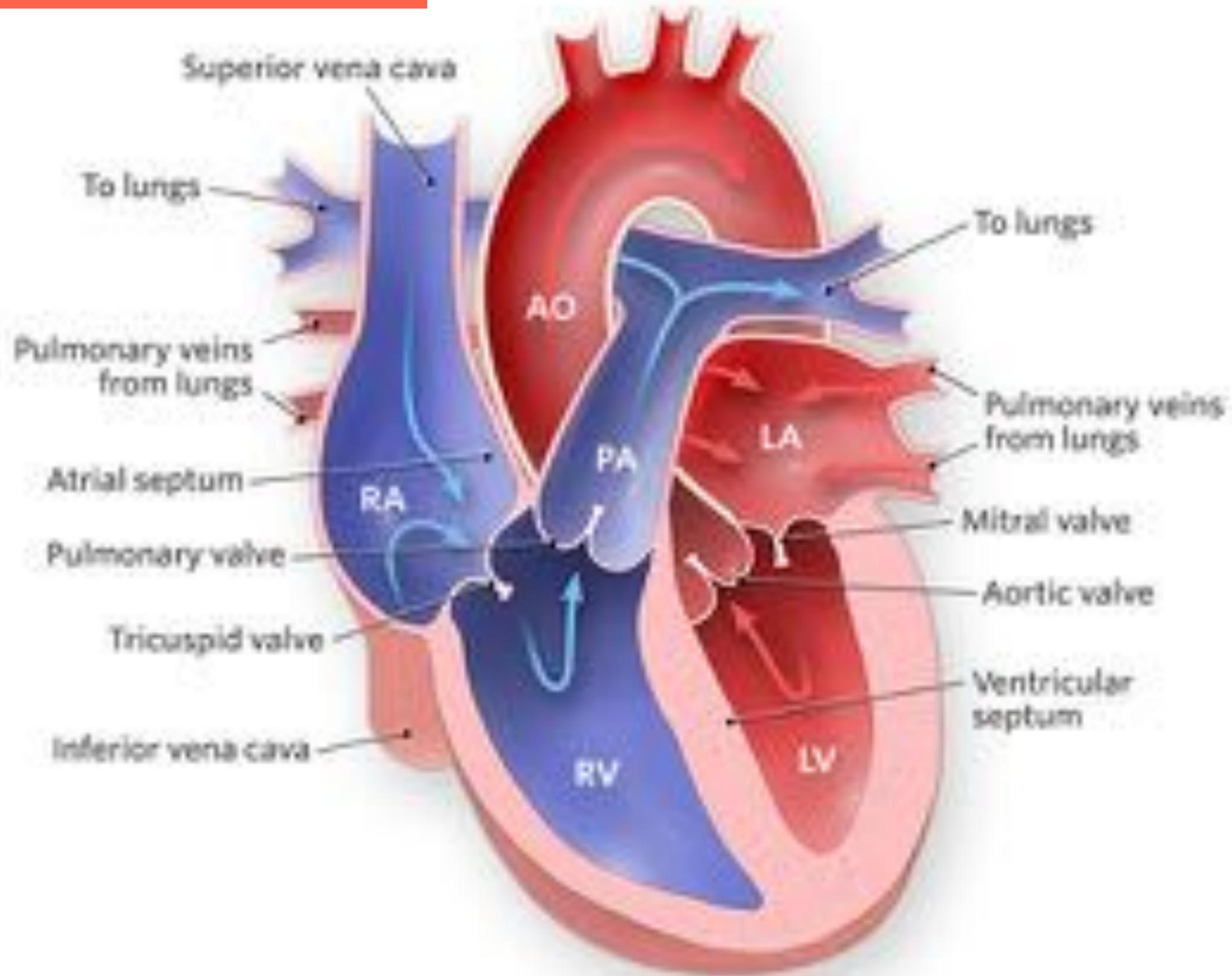


Kabuki syndrome



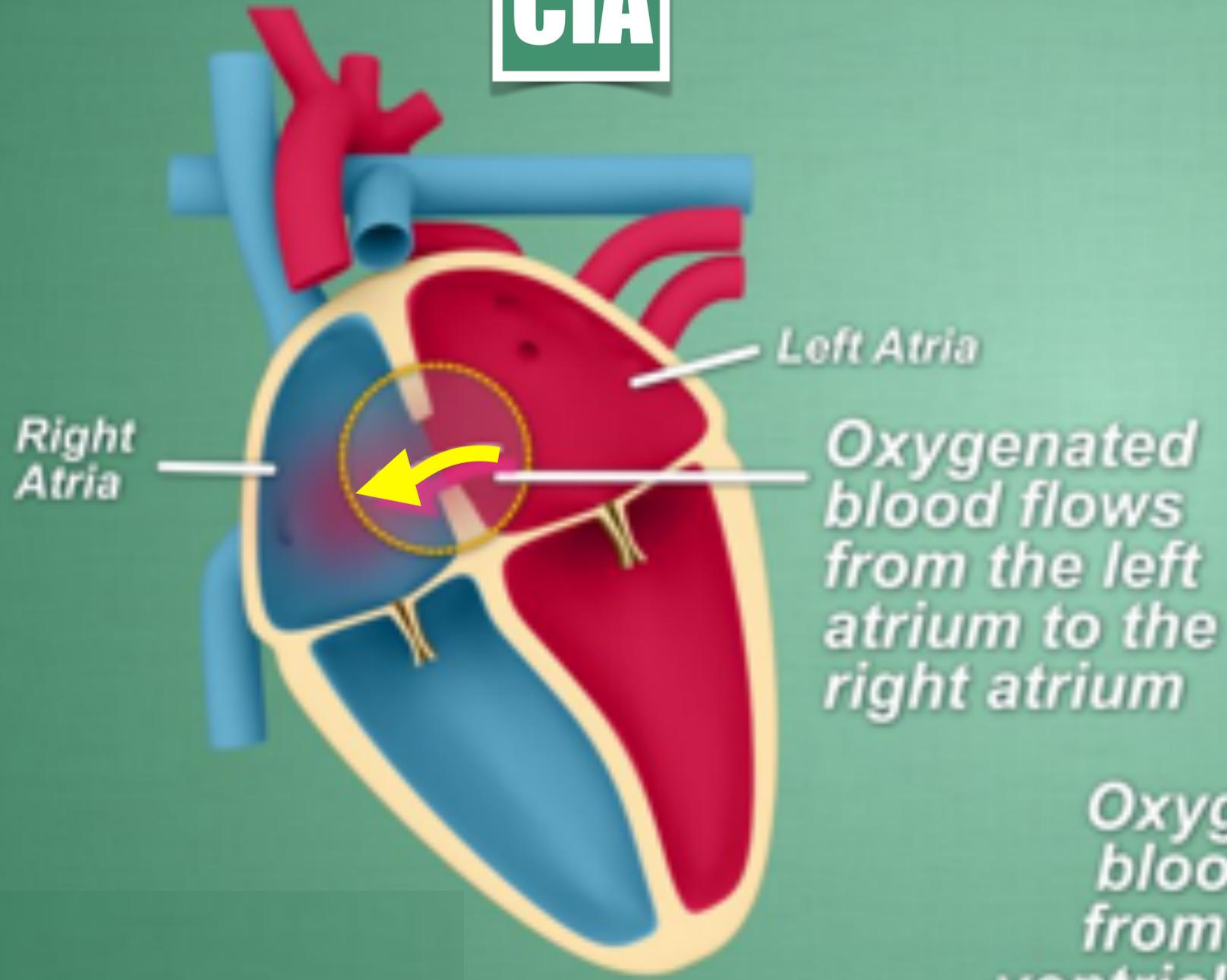
Wardenburg syndrome

# Anatomie de la malformation

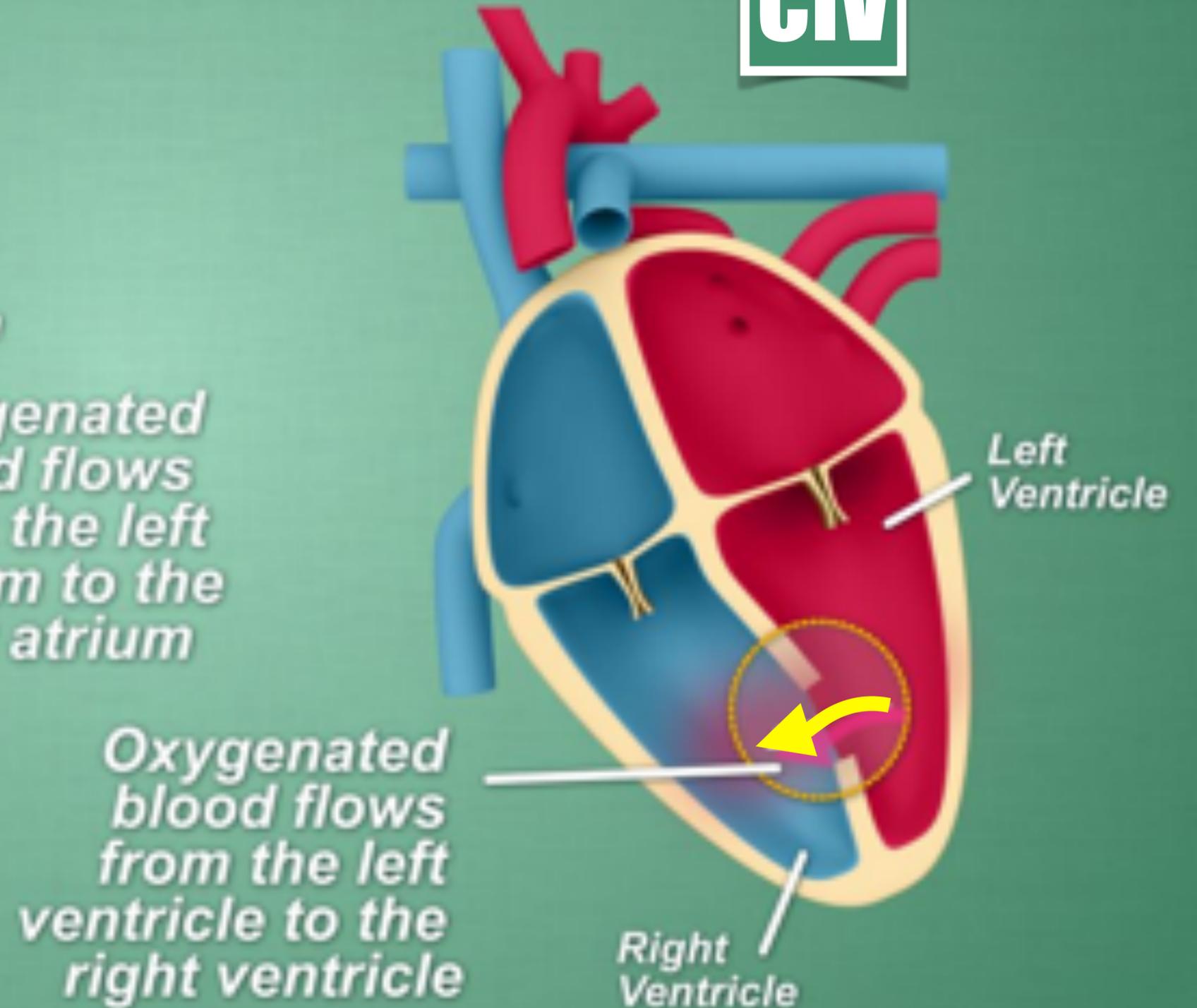


# Cardiopathies simples - Les « trous » entre les parties du coeur

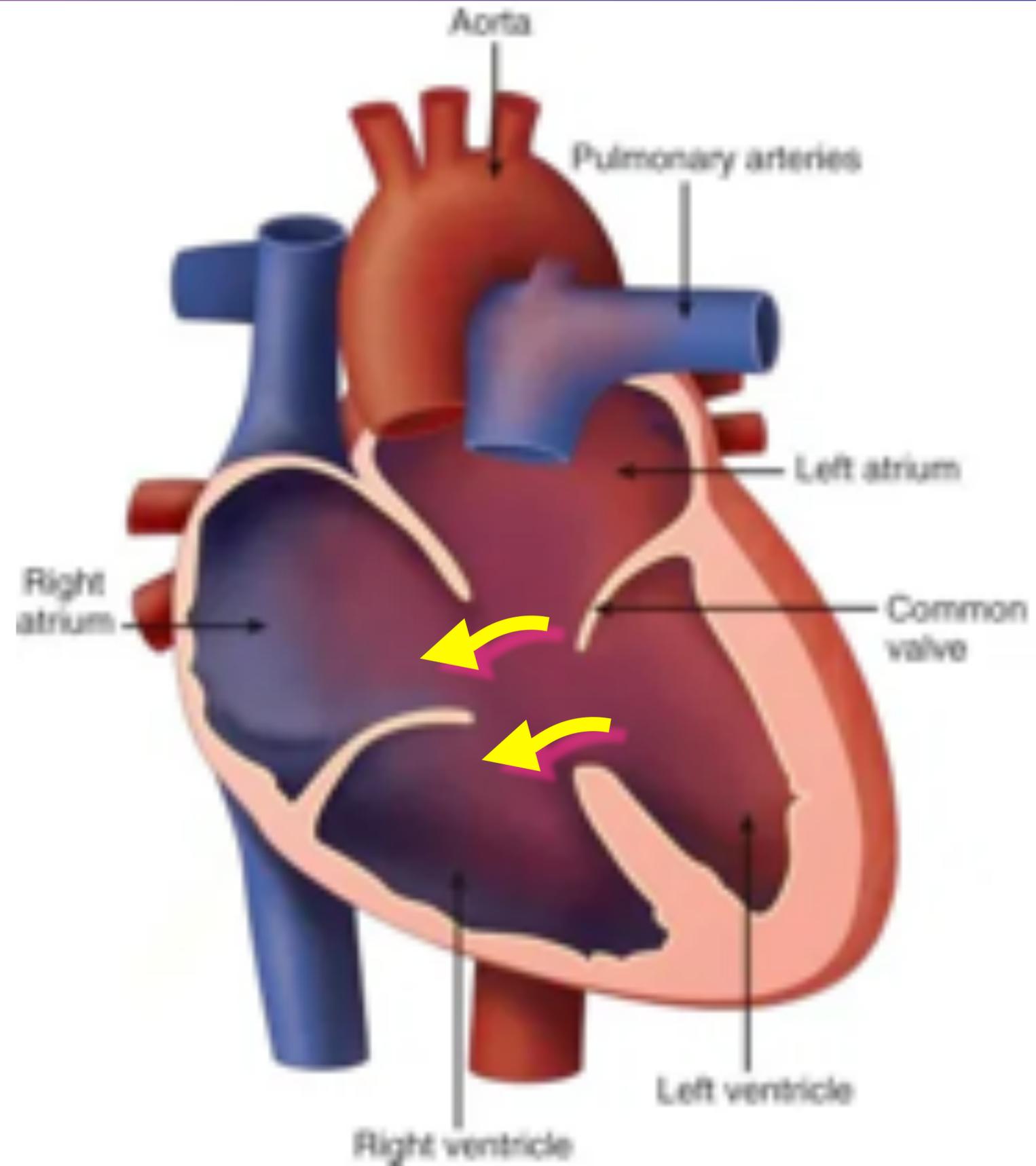
**CIA**

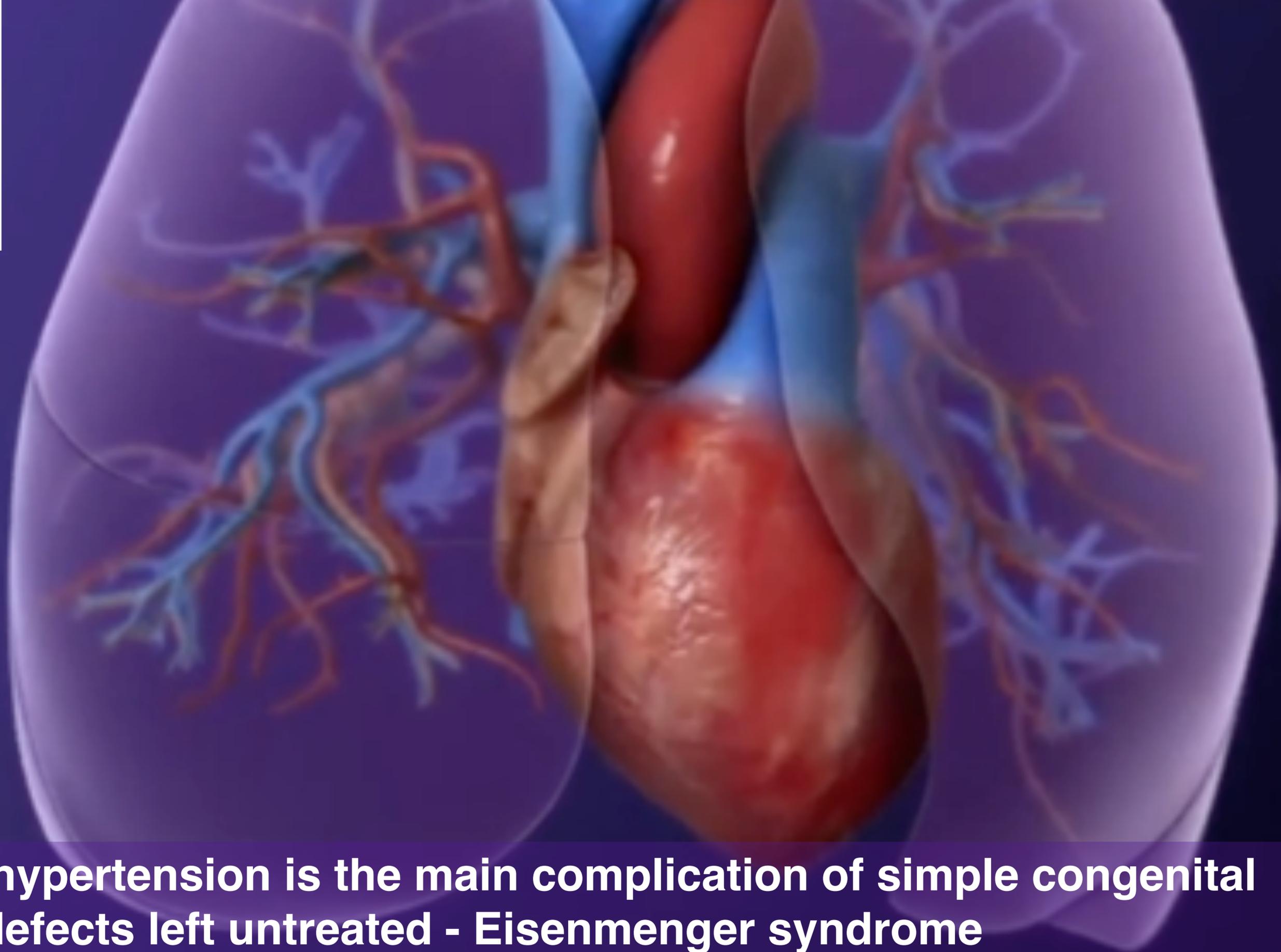


**CIV**



# Cardiopathies un peu moins simples





**Pulmonary arterial hypertension is the main complication of simple congenital heart defects left untreated - Eisenmenger syndrome**

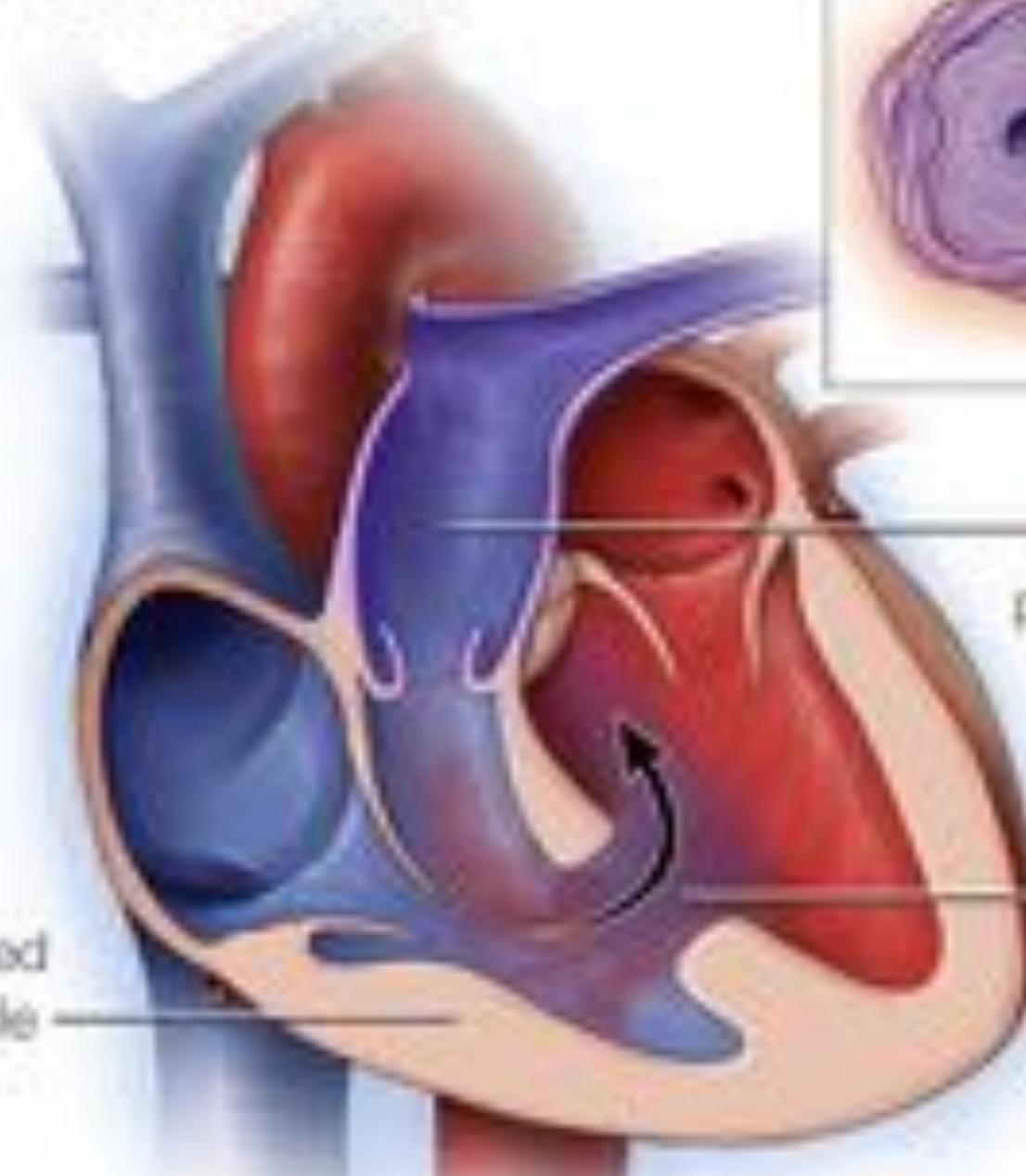
**Cardiopathie simple devenue irréparable  
ou pire, réparée trop tard et responsable  
d'hypertension pulmonaire sans soupape**



**EISENMENGER SYNDROME**



Normal heart



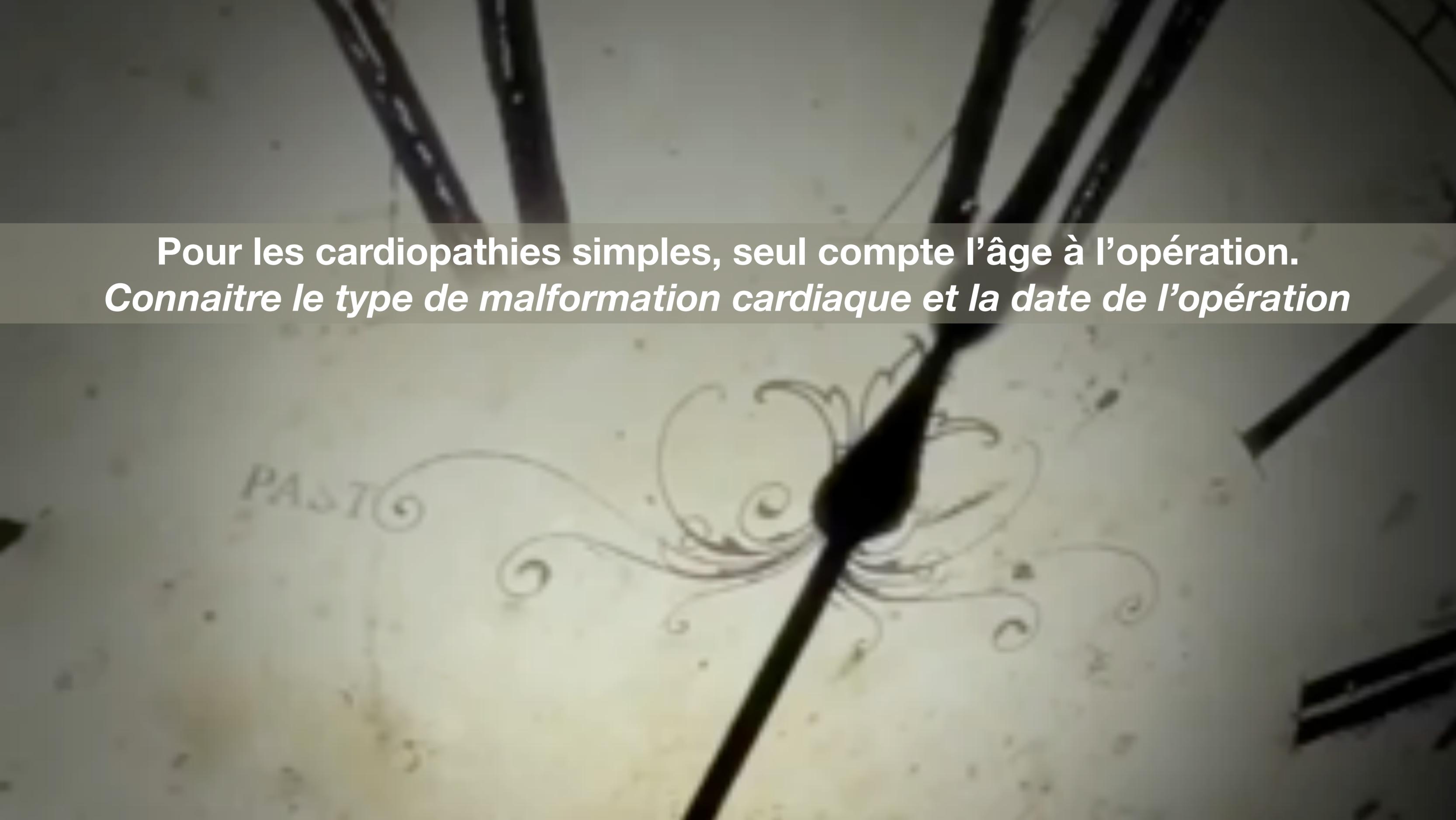
Hypertrophied right ventricle

Dilated pulmonary artery

Ventricular septal defect

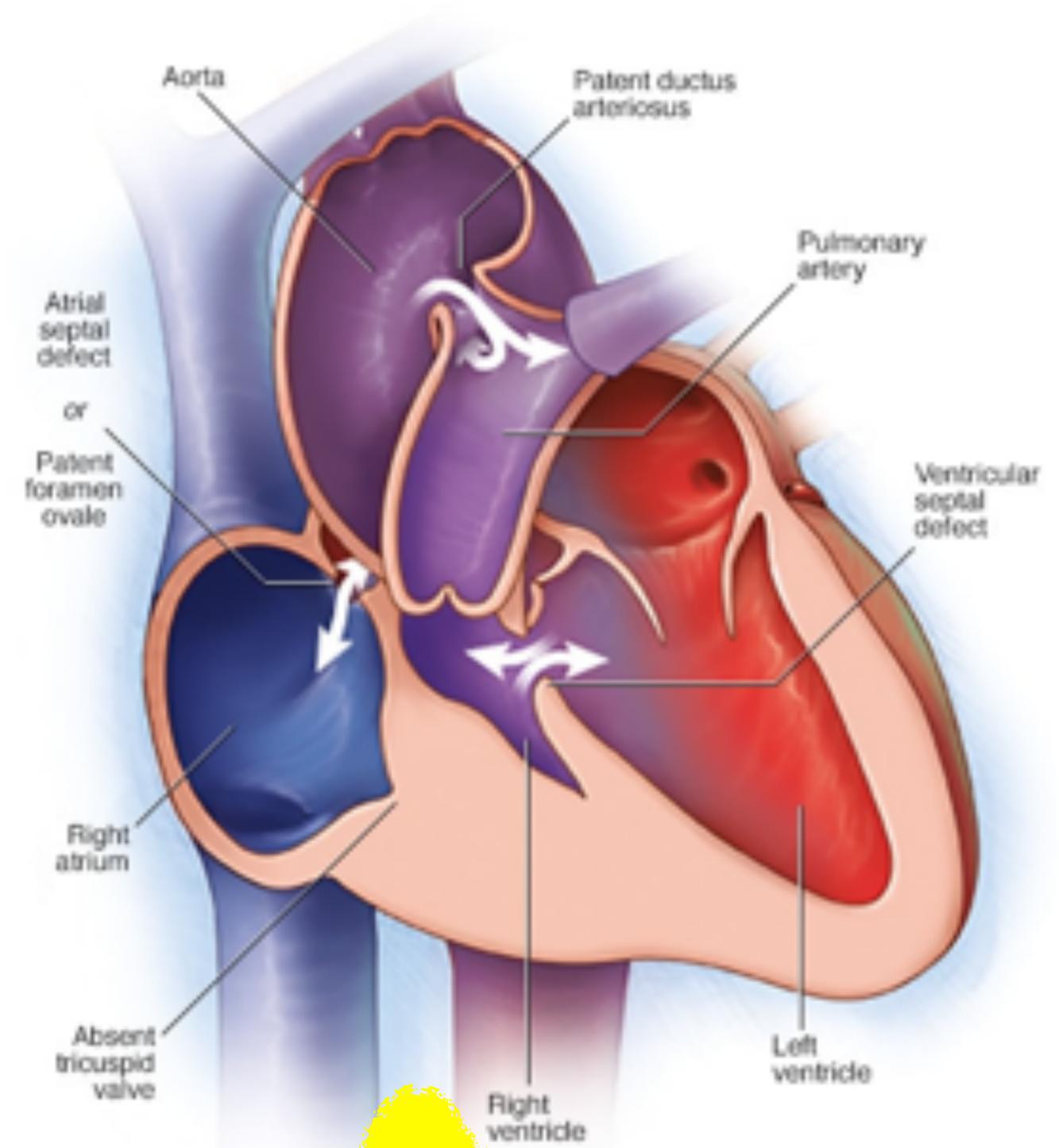
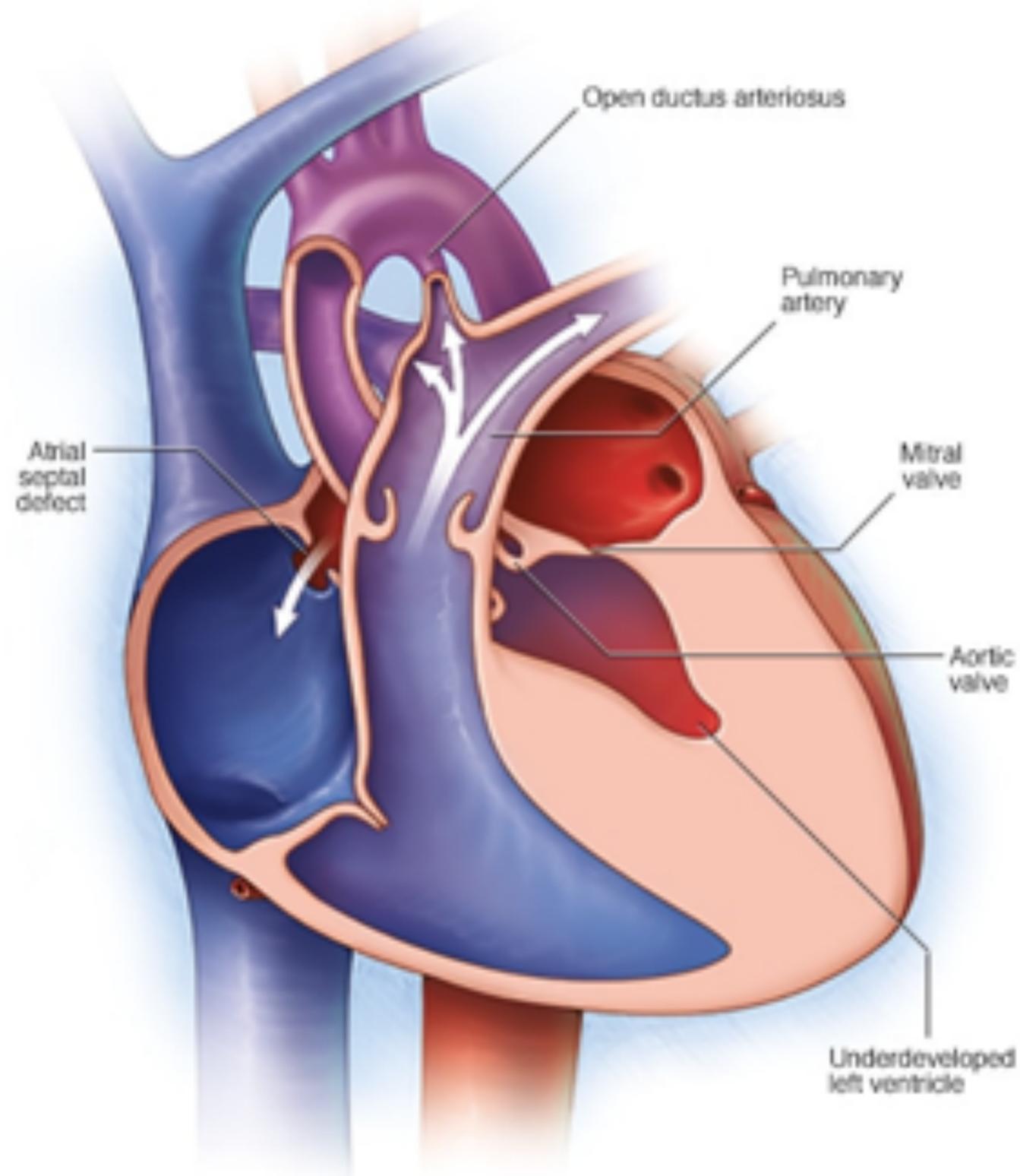


Pulmonary artery wall thickens toward lungs

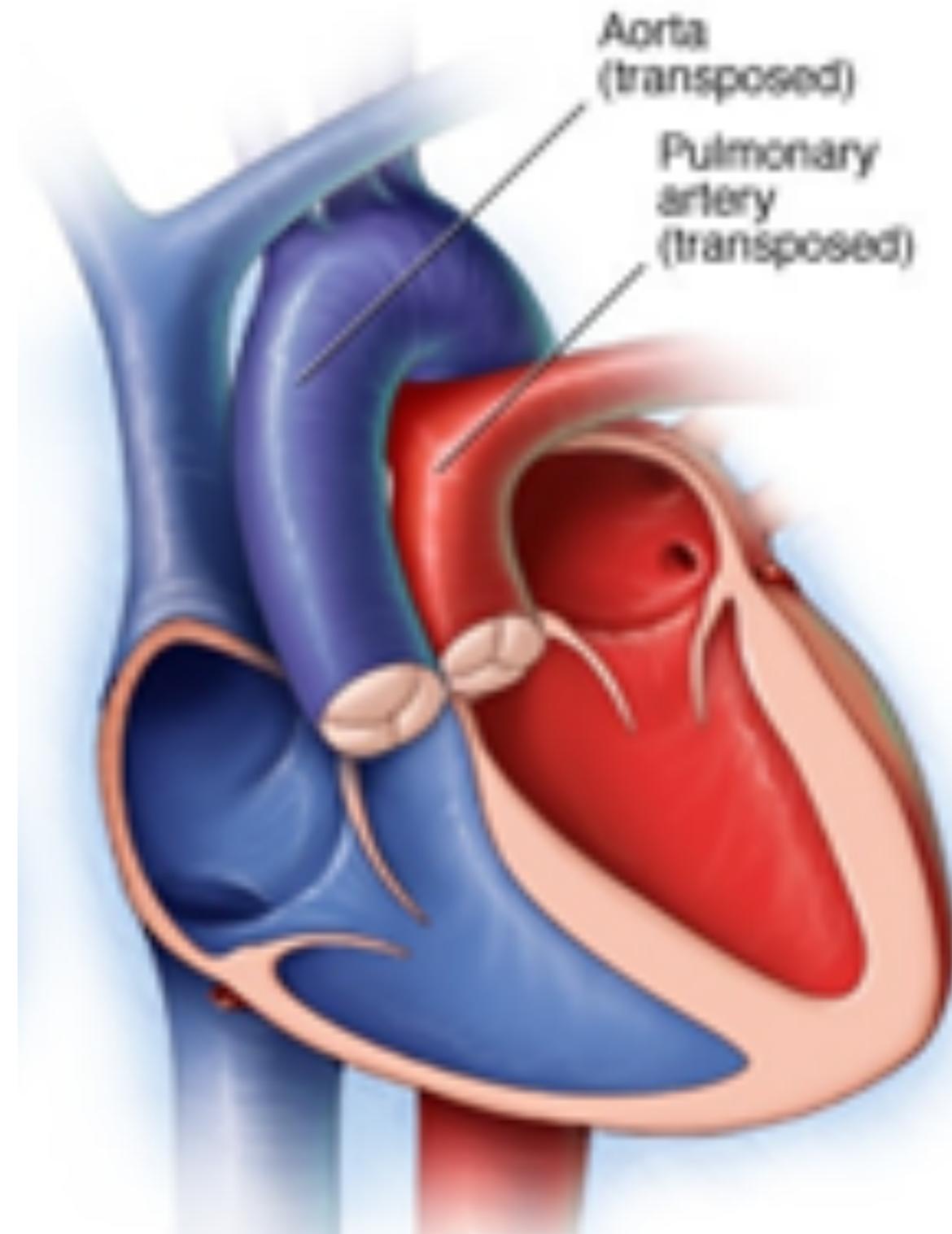
An anatomical drawing of a blood vessel, possibly a coronary artery, showing a significant narrowing (stenosis) in its middle section. The vessel is depicted in black ink on a light-colored, aged paper background. The stenosis is characterized by a bulbous, narrowed segment. The vessel branches out into several smaller vessels. In the background, there are faint, decorative scrollwork patterns and the word 'PAST' written in a cursive script. A semi-transparent grey text box is overlaid on the central part of the image, containing white text.

**Pour les cardiopathies simples, seul compte l'âge à l'opération.  
*Connaitre le type de malformation cardiaque et la date de l'opération***

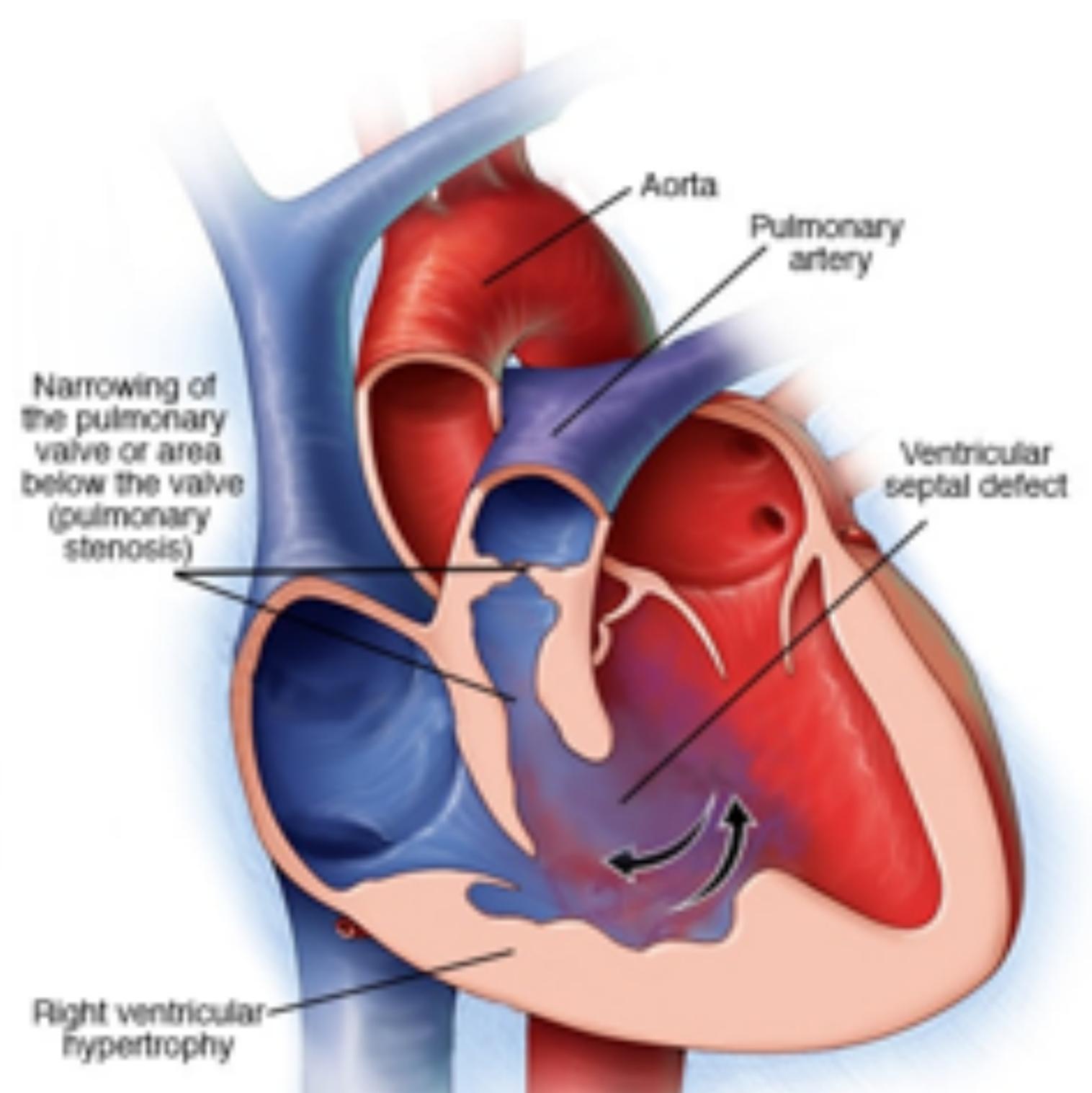
# Cardiopathies complexes irréparables



# Cardiopathies complexes réparables



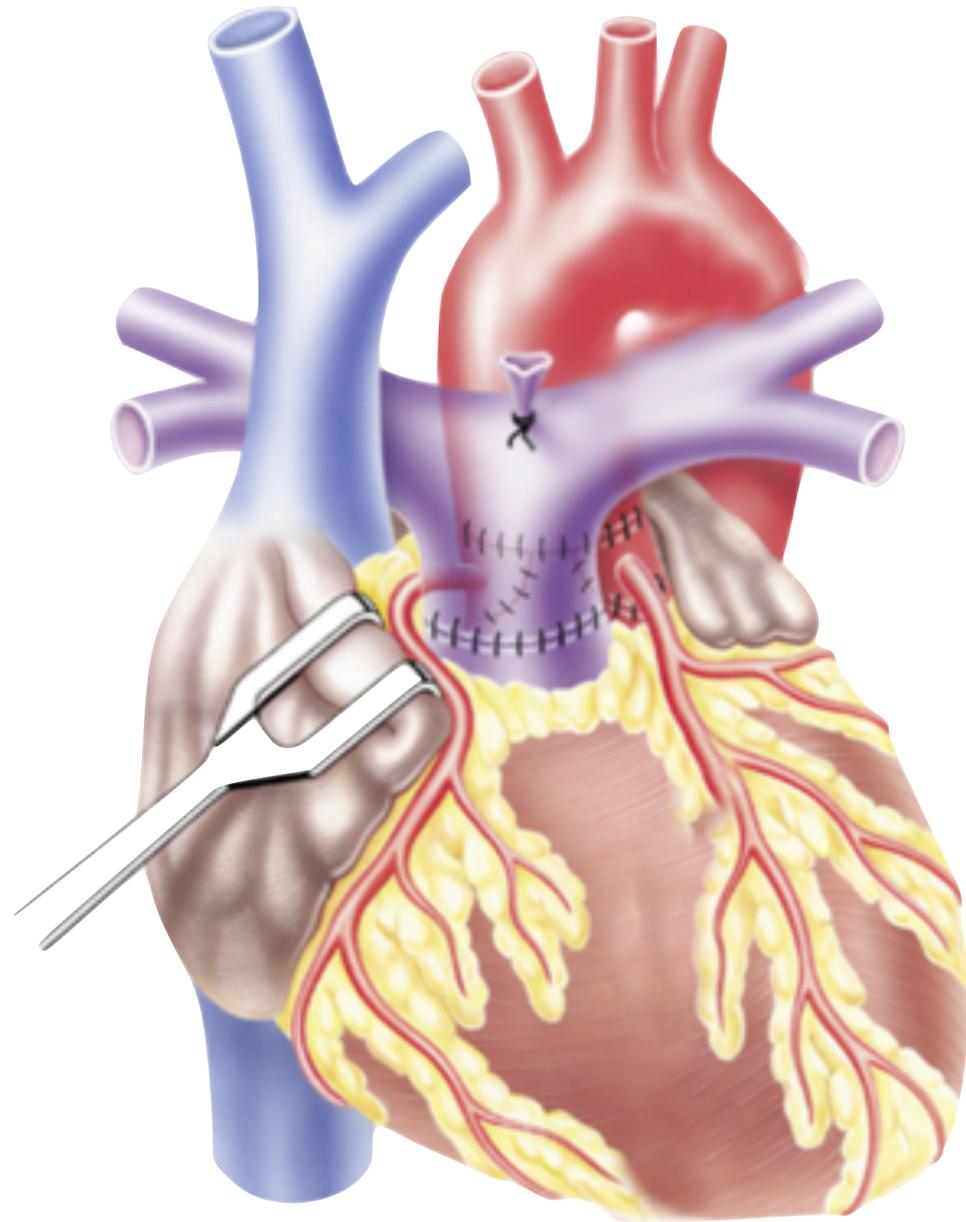
**Transposition des gros vaisseaux**



**Tétralogie de Fallot**

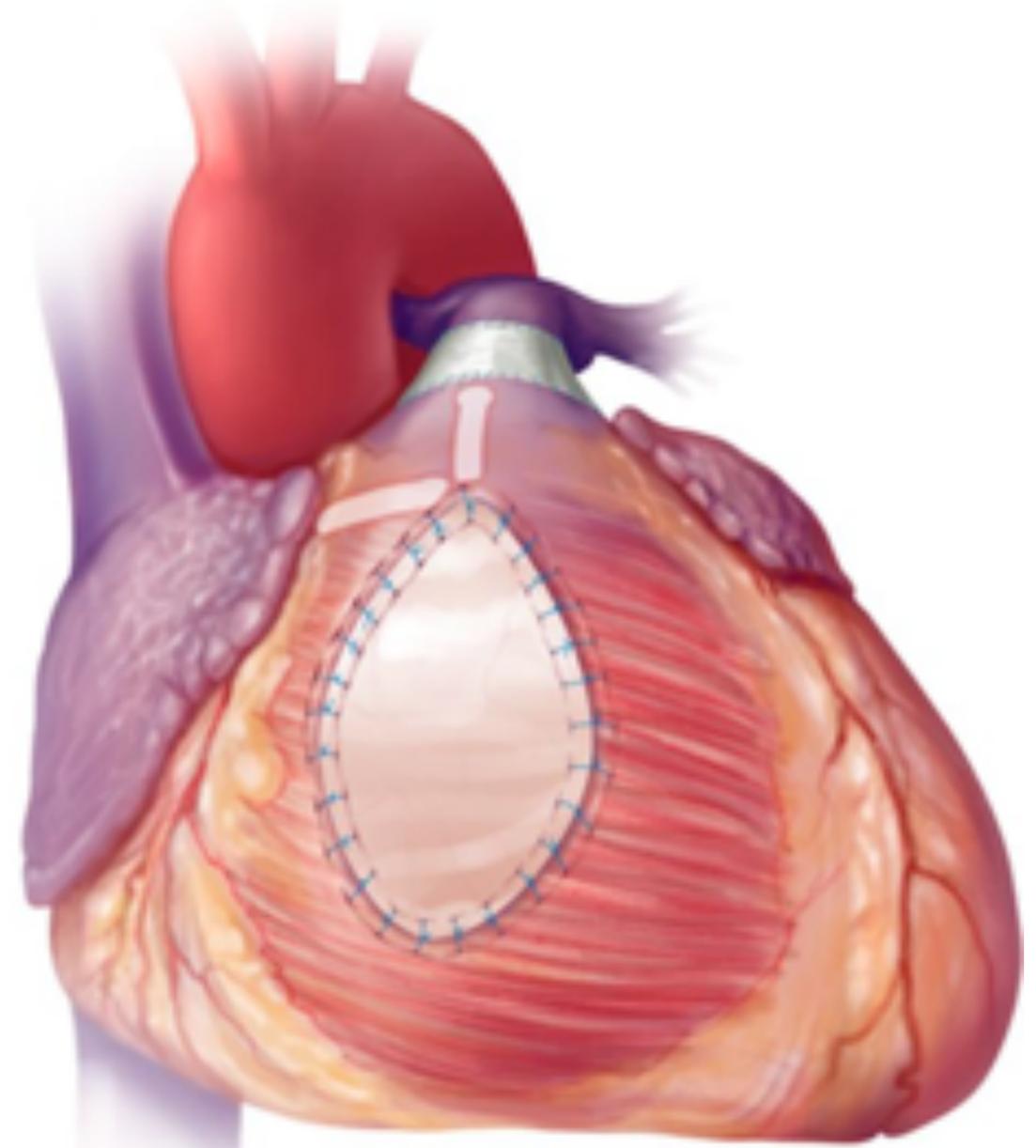
# Cardiopathies complexes réparées

Risque de réintervention faible

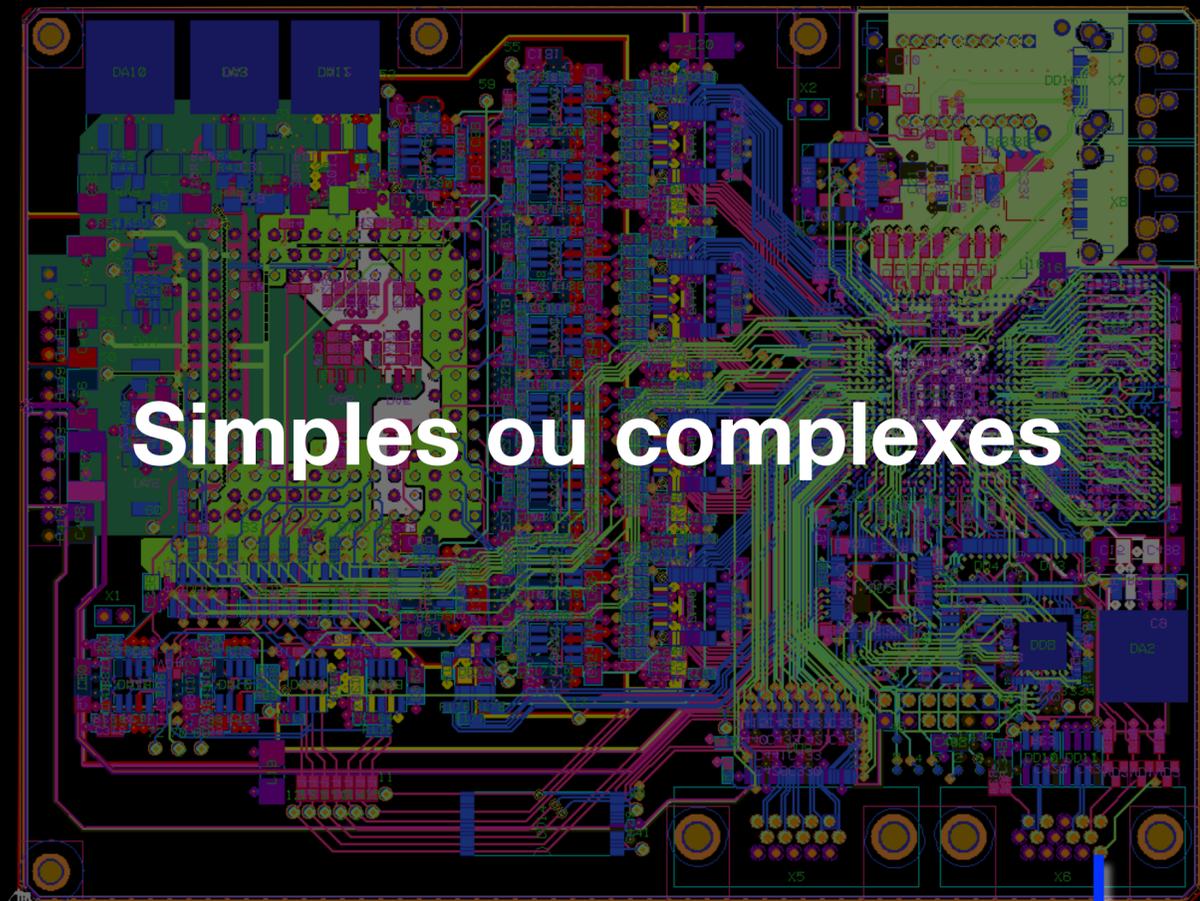


Transposition des gros vaisseaux

Risque de réintervention élevé



Tétralogie de Fallot



**Simple ou complexes**



**Malformations cardiaques associées à d'autres anomalies**

**Simple**

**Non réparables**

**Complexes**

**Avec risque de réintervention minime**

**Réparées à temps**

**Réparées**

**Avec risque de réintervention certain**

**Réparées trop tard**

**Non réparées**



F

A

Q

Q

# Y aura-t-il des séquelles ou des complications ?





Pourra-t-il faire du sport ?





Shaun White-Gold medal





**Y aura-t-il des médicaments à prendre ?**



# Pourra-t-il avoir des séquelles neurologiques ou intellectuelles ?



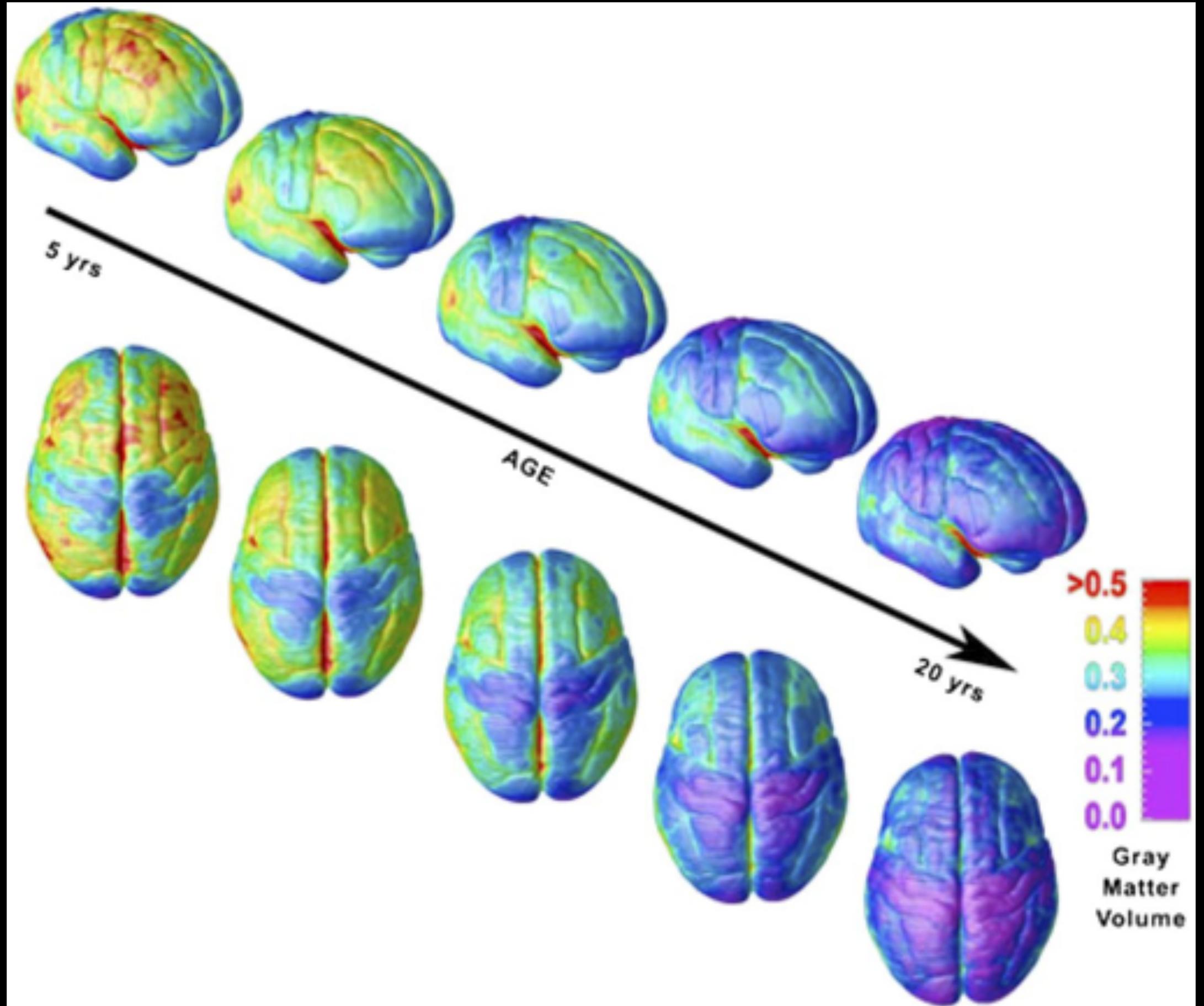
## Neurodevelopment in CHDs

Normal IQ

Cognition disorders frequent

Evaluation

Remediation





Devrons-nous venir souvent en consultation ?



Jusqu'à quel âge ?



# Professeur Damien Bonnet

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Rendez-vous pour entretiens  
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