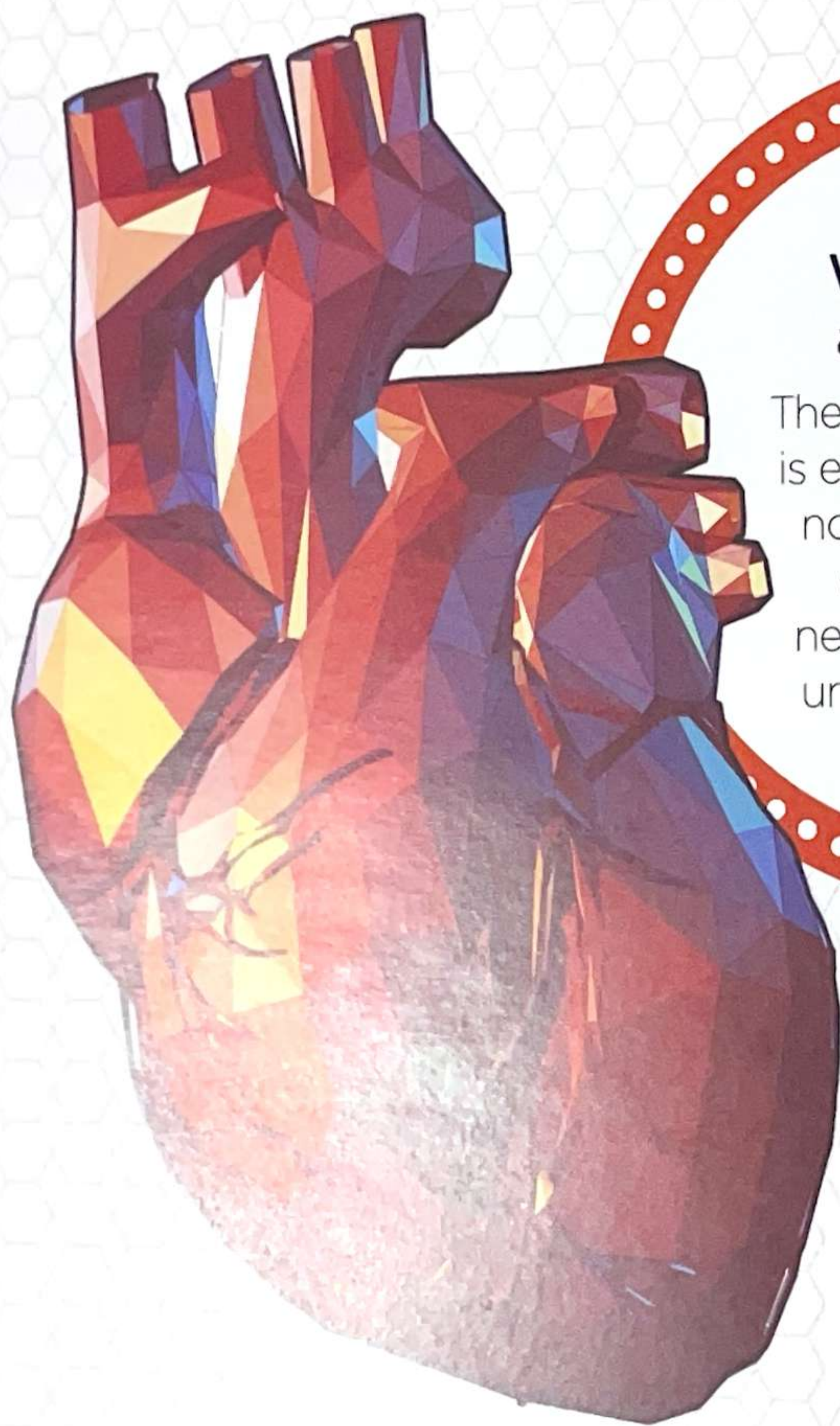


ATRIAL SEPTAL DEFECT (ASD)



What is it and how does it affect the heart?

ASD is an opening or hole (defect) in the wall (septum) between the heart's two upper chambers (atria).

Blood can flow across the hole from the left upper heart chamber (left atrium) to the right upper chamber (right atrium) and out into the lung's arteries.

If the hole is small, it may not cause problems. If the hole is large, extra blood being pumped into the right heart and the lung arteries makes the heart and lungs work harder. The right heart will get enlarged and the lung arteries can become gradually damaged.

How would it affect my child?

Children with ASD often have no symptoms. In children with large ASD, the right heart and lungs have to work harder and over time, usually in adulthood, it can cause right heart failure, permanent damage to the lung's blood vessels due to high lung pressure and rhythm problems.

What will happen to my child if untreated?

If the hole is small, the child will usually remain well with no symptoms.

If the hole is large, he/she will present in his/her adulthood with rhythm problems, right heart failure and high lung pressure with permanent damage of lung blood vessels. The common symptoms are palpitation, reduced effort tolerance, fainting episodes and breathlessness.

What happens after surgery?

The long term outcome is excellent and usually no further treatment or intervention is needed in children or uncomplicated ASD.

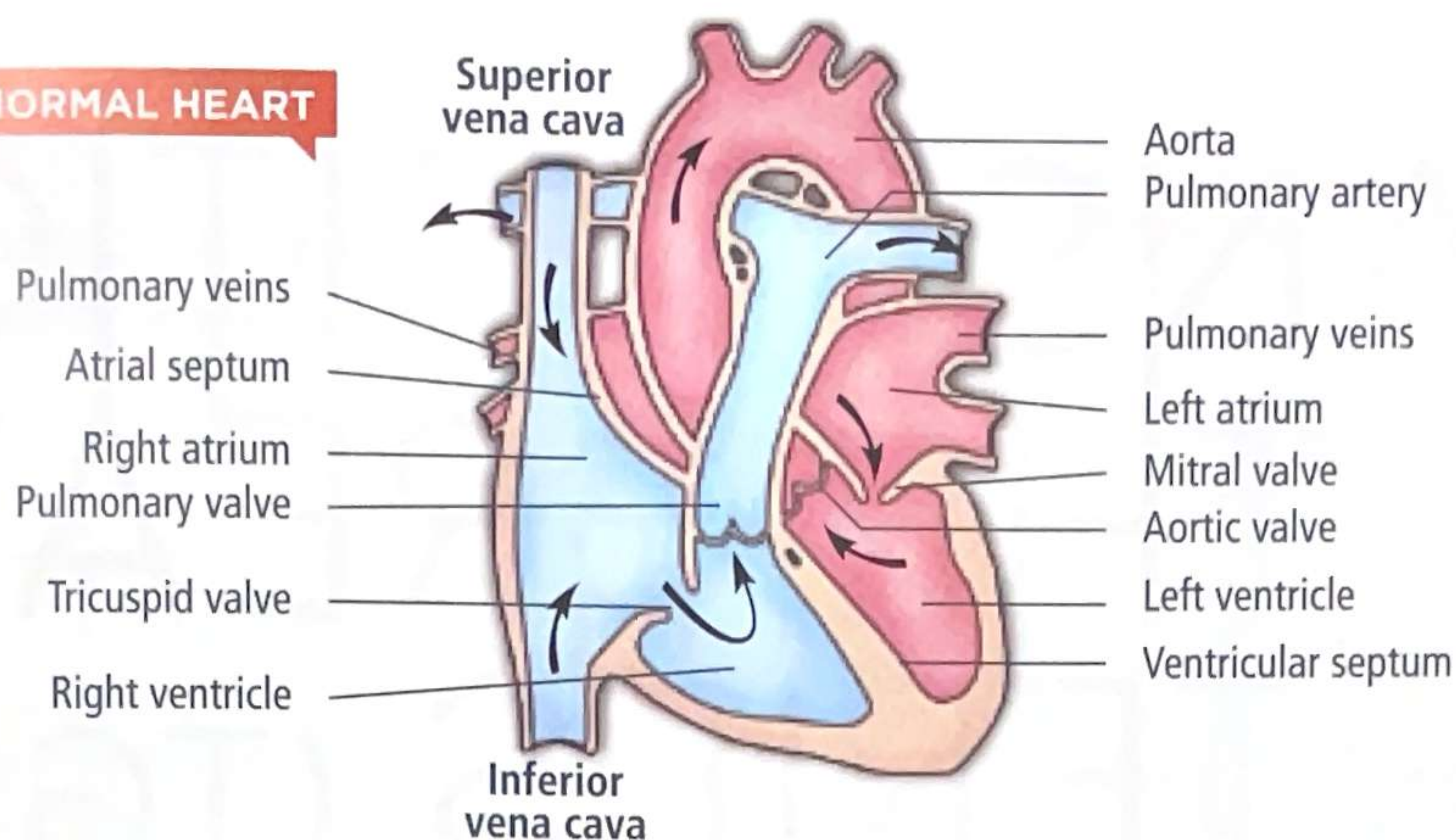
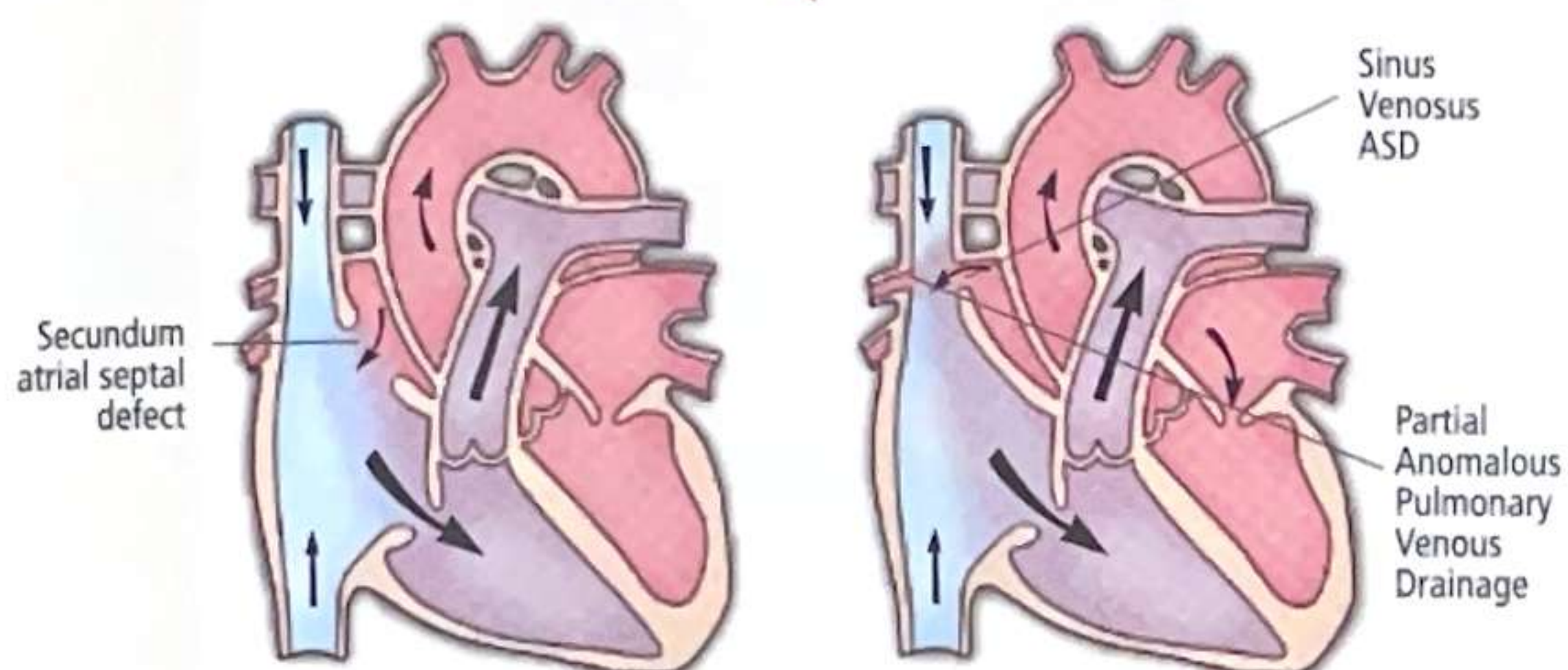
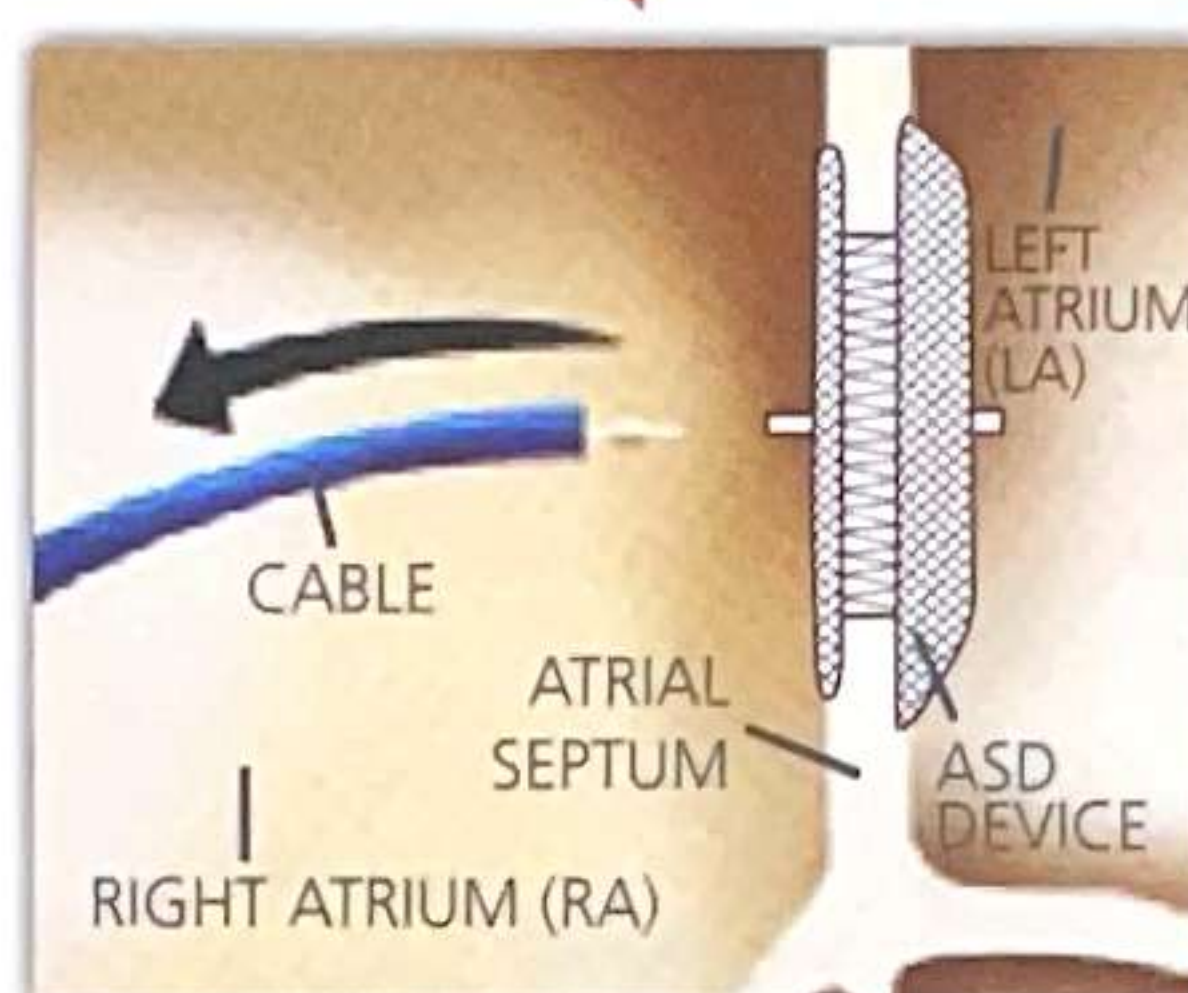
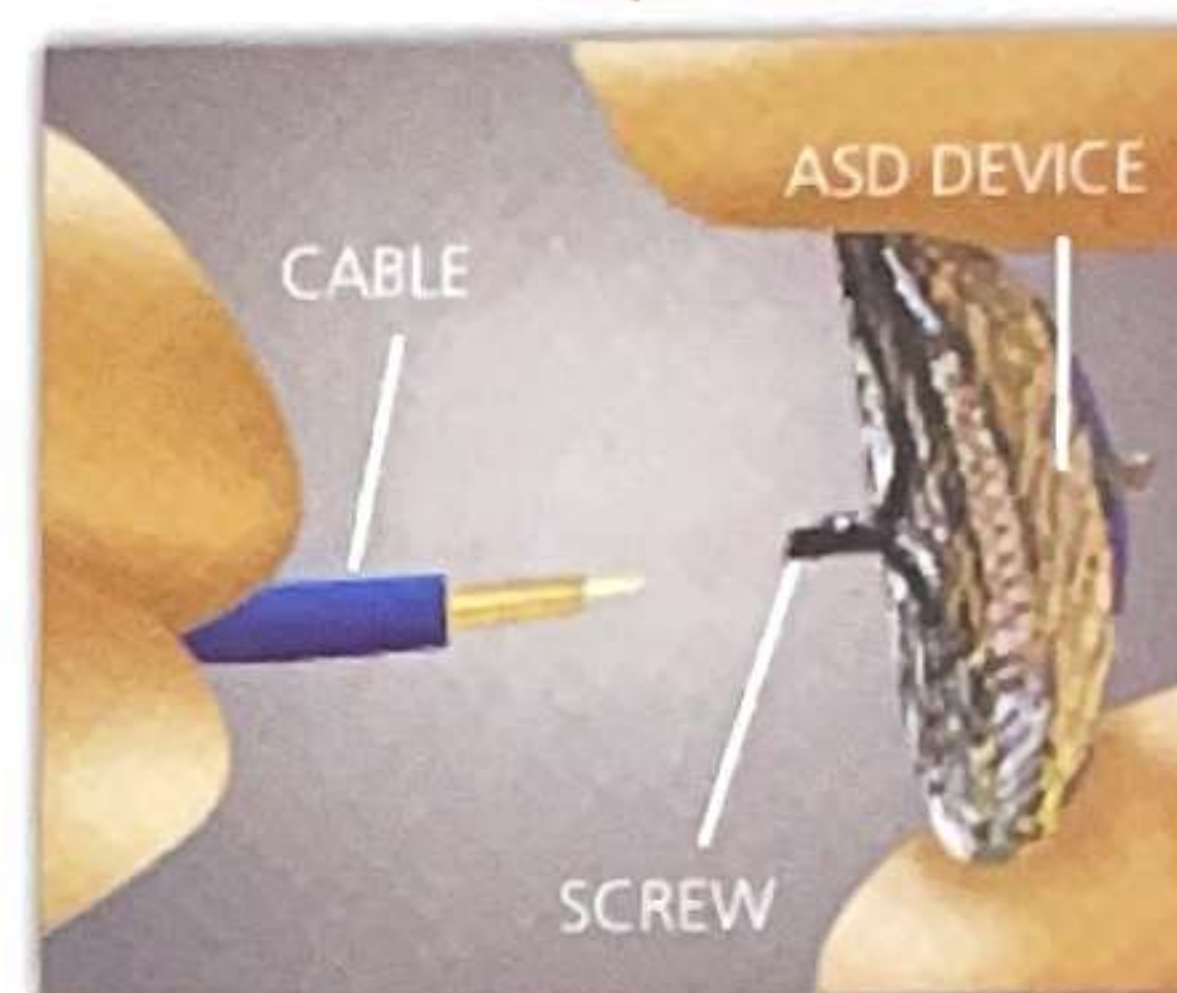
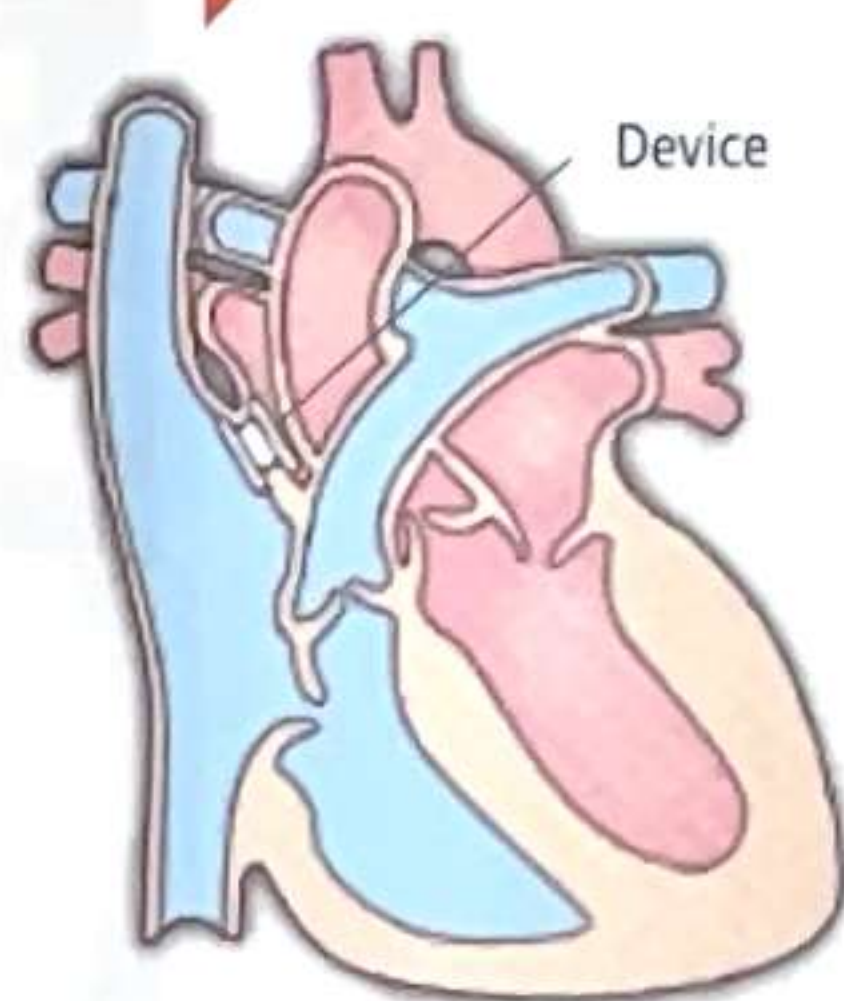
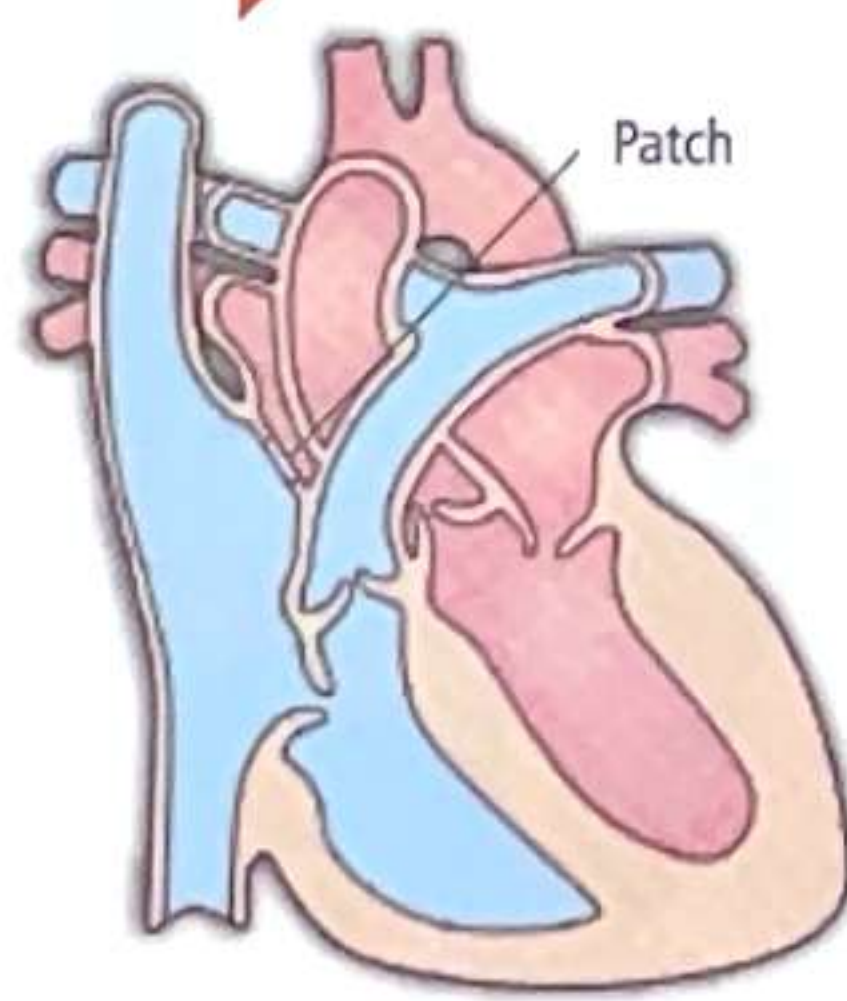
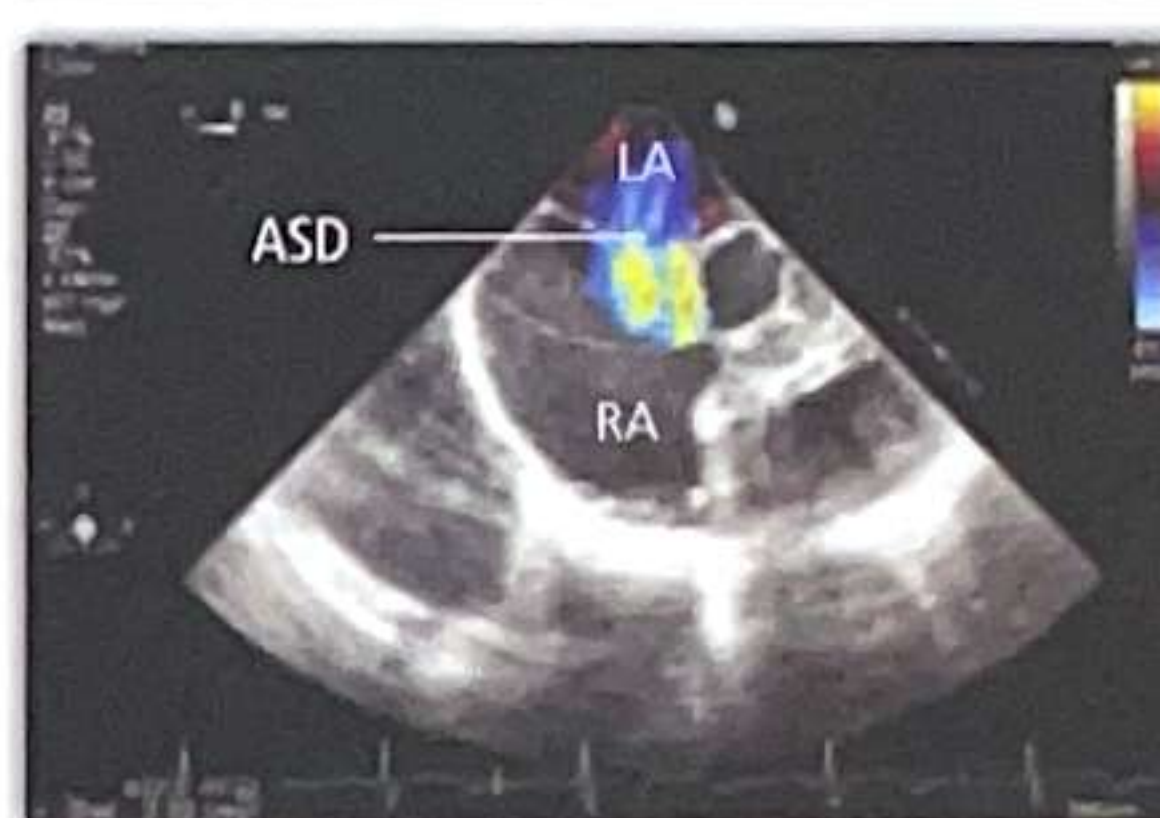
How can it be treated?

If the hole is small, no intervention is needed as the heart and lungs don't work harder. Small ASD are noted during infancy and often close or get smaller naturally without any medication.

If the ASD is large, it can be closed with open-heart surgery, or by cardiac catheterisation using a device for selected groups of patients.

Transcatheter closure of secundum ASD using device

This procedure is recommended for secundum ASD patients with adequate margin to accommodate the device. A catheter which is loaded with a device will be introduced into a leg vein at the groin. The device will be placed at the defect to achieve closure.

NORMAL HEART**SECUNDUM ATRIAL SEPTAL DEFECT****DEVICE IN THE HEART****ASD DEVICE****CLOSURE BY DEVICE FOR SECUNDUM ASD****SURGICAL CLOSURE BY PATCH****TRANSESOPHAGEAL ECHO****PRE ASD CLOSURE****POST ASD CLOSURE****Surgical closure of ASD**

All types of ASD can be closed surgically. The operation involves a sternotomy and open heart surgery. The defect can be sewn directly or by using a patch.

What will happen to my child after surgery or device closure?

The long term outcome is excellent and usually no further treatment or intervention is needed. However, long term follow up may be required for those who have uncommon complications.

ASD in adults

ASD is one of the most commonly missed cardiac lesions during childhood as they usually have no symptoms.

The first symptom may present in adulthood when complications develop.

The common symptoms are palpitation (heart beating fast), reduced effort tolerance, breathlessness and fainting episodes.

Untreated large ASD can also cause the pressure in your lungs to increase (pulmonary hypertension) and cause lung damage (pulmonary vascular disease).

The treatment for this group of patients is more sophisticated. The feasibility of ASD closure depends on the severity of related complications.