

MD 81



Gegr. 1876

**HS 2, HS 3, HS 4, HS 5,
HS 6, HS 6/1, HS 15,
HS 15/1, HS 26**

**Das Herz
The Heart
Le Coeur
El corazón**



- A. Nodus sinuatrialis*
- B. Nodus atrioventricularis*
 - a. Truncus fasciculi atrioventricularis*
 - b. Crus dextrum*
 - c. Crus sinistrum*

* gilt nur für HS 6/1

gilt nur für

HS 15/1

Herzmodell mit Bypassgefäßen (aortokoronarer Venenbypass)

Natürliche Größe, aus SOMSO-PLAST. In Zusammenarbeit mit Prof. Dr. Meisner entwickelt. In 2 Teile zerlegbar.

Die chirurgische Therapie der koronaren Herzerkrankung besteht heute in der Überbrückung der stenosierten Segmente mit Venentransplantaten. Venen werden aus den Beinen entnommen, an die große Körperschlagader (Aorta ascendens) angenäht und dann mit Hilfe der Herz-Lungen-Maschine am stillgelegten Herzen mit der Koronararterie Endzu-Seit verbunden. Im Modell sieht man einen Venenbypass zur rechten Koronararterie sowie zum Ramus intervenrikularis descendens anterior (Vorderwand) und Ramus circumflexus der linken Koronararterie.

Höhe: 28 cm, Breite: 10 cm, Tiefe: 15 cm,
Gewicht: 0,63 kg.

The Heart

Cor

The heart is a muscular hollow organ of conical shape, it is enclosed in a thin membranous sac, the pericardium, and lies in an oblique longitudinal axle between both lungs, $\frac{2}{3}$ in the left and $\frac{1}{3}$ in the right thoracic cavity.

- A. **The point of the heart**, *Apex cordis*, looks forward and to the left and touches in the 5th intercostal room (between the 5th and 6th rib) the front breast-wall of the left side. Through a partition wall,
- B. *Septum interventriculare*, running from top to bottom – the heart is divided in a left and a right half; the right one serves for the reception of the venous blood, the left for the reception of the arterial blood. Each half of the heart consists of two cavities communicating with each other, the auricle and the proper ventricle of the heart.



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- I. **Right auricle**, *Atrium dextrum*.
- II. **Left auricle**, *Atrium sinistrum*, each of the auricles pass over into each an auricular appendage.
- a. **Right auricular appendage**, *Auricula dextra*.
- b. **Left auricular appendage**, *Auricula sinistra*.
- III. **Right ventricle**, *Ventriculus dexter*.
- IV. **Left ventricle**, *Ventriculus sinister*.
The consumed (venous) blood is conducted through the superior vena,
- c. *Vena cava superior*, and through the inferior vena,
- d. *Vena cava inferior*, into the right auricle (I) and through the
- e. tricuspid valve, *Valva atrioventricularis dextra [Valva tricuspidalis]*, into the right ventricle (III). From here the blood flows through the
- f. **pulmonary artery**, *Truncus pulmonalis*, which divides itself in two branches toward both lungs, where the exchange of gases takes place, that is to say = the

- venous blood secredes the carbonic acid and absorbs the inhaled oxygen and is then led back as good (arterial) blood through the
- g. **pulmonary veins**, *Venae pulmonales*, to the left auricle (II); from the latter it flows through the
- h. **bicuspid valve**, *Valva atrioventricularis sinistra [V. mitralis]*, into the left ventricle (IV). In consequence of the contracting of the muscling of the heart the blood is forced into the
- i. *Aorta*, and from there into its branches in the arteries of the body. Where the aorta and the pulmonary artery start from there are each three
- k. **semilunar valves**, *Valvulae semilunares*; same prevent through their closing up a backward flow of the blood from the vessels of the ventricles, while the auriculaventricular valves prevent the back flow from the ventricles into the auricles. A derangement of these valves involves a heavy organic disease of the heart. The auriculaventricular valves are through the
- l. **tendinous cord**, *Chordae tendineae*, in connection with the



2. **papillary muscles**, *Musculi papillares*.
3. **Ascending branch of the aorta**, *Aorta ascendens*, at the beginning of same spring from it the.
4. **right coronary artery**, *Arteria coronaria cordis dextra*, and the
5. **left coronary artery**, *Arteria coronaria cordis sinistra*.
6. **Great heart-vein**, *Vena cordis magna*.
7. **Arch of the aorta**, *Arcus aortae*, from it spring the aortas for the upper half of the body, while from the descending parts of the aorta spring the branches, which supply the lower half of the body with arterial blood.

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 - B. Nodus atrioventricularis*
 - a. Truncus fasciculi atrioventricularis*
 - b. Crus dextrum*
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- * for the model HS 6/1 only

only for

HS 15/1

Model of the heart with bypass vessels (aortic coronary venous bypass)

The surgical therapeutics of the coronary attacks of heart consists today in bridging of the stenosed segments with venous transplants. Veins are taken out from the legs, sewn on to the ascending aorta and then joined to the coronary artery end-to-side with help of the heart-lungs-machine at the stopped heart. At the model a venous bypass to the right coronary artery as well as to the anterior descending interventricular branch and the circumflex branch of the left coronary artery are shown.

Natural size, in SOMSO-PLAST.

Developed in co-operation with Prof. Dr. Meisner.

Detachable in 2 parts.

Height: 28 cm, Width: 10 cm,

Depth: 15 cm, Weight: 0,63 kg.