

# Ventricular septal defect

**Ventricular septal defect** (VSD) is an opening in the septum between the left and right ventricles that causes oxygenated blood to short from the left ventricle to the right ventricle (and thus again inefficiently into the lungs). It is one of the congenital heart defects.

- Small defects are manifested only by a murmur, which is not heard immediately after birth (pressure in the lungs rises slowly and there is not yet a sufficient pressure gradient).
- A more severe defect can lead to heart failure.

## Types

The ventricular septal defects can be divided into subarterial, perimembranous, inflow and muscular according to location.

## The clinical picture

### Signs of heart failure in young infants

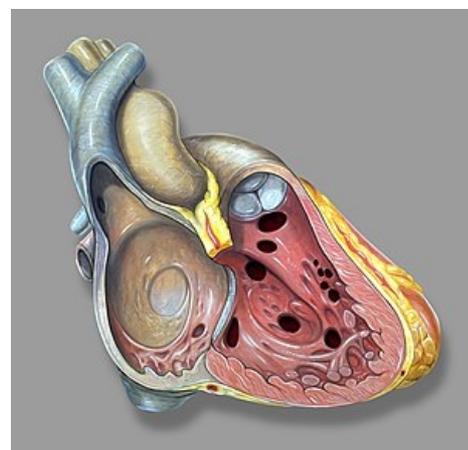
- Sweating, tachypnoea, resting while drinking, inability to drink sufficient amount of nutrients
- Children suffer from frequent respiratory infections with atelectasis (mainly areas suppressed by enlarged left ventricle).
- Harrison's groove develops gradually, the precordium arches, and the child does not thrive.
- The precordium is hyperactive, the murmur is accompanied by whirl.

### Signs of a large short-circuit

- Additional third heart sound at the apex, mesodiastolic short murmur.

## Diagnosis

The diagnosis of ventricular septal defect is determined on the basis of the clinical picture and echocardiographic examination.



Multiple ventricular septal defect

## Progress

- Small defects may close spontaneously.
- Large ones, on the other hand, can lead to heart failure and the development of irreversible pulmonary hypertension.
- It is unfavorable when the aortic valve weakens (regurgitation) or pulmonary stenosis can occur.
- All children with this defect are at risk for endocarditis.

## Therapy

- Defect closure with a patch. This is indicated for all symptomatic lesions
  - The result is excellent in the long run.
  - We bridge the short period after the operation by administering diuretics, cardiotonics, or angiotensin converting enzyme inhibitors.
- For small defects, we expect a possible spontaneous closure and postpone the operation until school age. Some defects can be corrected by catheterization.

## Links

### External links

- Defekt septa komor - Šelest - Audio nahrávky (TECHMED) (<https://www.techmed.sk/kontinualny-selest/>)

### Source

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## References

### Literature

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