

# Sudden infant death syndrome

**Sudden infant death syndrome** (SIDS) is the sudden, unexpected death of an infant **older than one month** without an adequate explanation despite a thorough (autopsy) post-mortem examination.

SIDS is therefore a condition where a previously healthy newborn or infant has been found lying down without signs of life, and the cause of death cannot be clarified by an autopsy. It affects children in the first year of life, 95% of children are affected by the sixth month (the maximum incidence is between the 2nd and 4th months). In developed countries, it occurs with a frequency of 1:1000 children.

*Definition according to the American Academy of Pediatrics (2005): SIDS is the death of an infant under one year of age in sleep, which remains unexplained by an examination of the place of death, a detailed autopsy, and even from anamnestic data about the course of the birth, the development of the child, the health status of the mother and the social situation in the family cannot find the relevant information.*

## Etiology

There are a number of hypotheses about possible causes (peracute infection, cardiac arrhythmia, unknown metabolic defect leading to hypoglycemia...). Everything points to the fact that the etiology is not uniform, and therefore completely reliable prevention is not possible. In the Czech Republic, a forensic autopsy is always indicated for SIDS.

## Risk factors

330px|thumb|Možnost uložení dítěte v rámci prevence SIDS

- male gender ,
- low birth weight ,
- prematurity ,
- bronchopulmonary dysplasia ,
- peri- and postnatal complications ,
- perinatal asphyxia ,
- siblings of children with SIDS ,
- young age of the mother ,
- nicotine and drug abuse by the mother ,
- low socioeconomic status ,
- frequent pregnancies of the mother ,
- putting the child to sleep in the stomach position, overheating, early introduction of artificial nutrition , putting the child in a different room than the parents, or vice versa in the bed with the parents.

## Prevention

Preventive measures include a non-smoking environment . When sleeping, the position of the infant on the back , the use of a sleeping bag (cannot be pulled over the head). Cot for a child up to 1 year of age placed in the parents' bedroom , bedroom temperature up to 18 °C, breastfeeding up to 6 months of age, pacifier up to 1 year of age . The use of home monitors has not been proven to be effective in prevention.

## Forensic Context

SIDS is the most common cause of infant death and accounts for up to 10% of violent deaths. Autopsy marks include:

- visible signs;
  - postmortem spots on the ventral side of the body (pronated position at death),
  - cyanosis of lips and fingers,
- organ changes;
  - hemorrhagic pulmonary edema ,
  - foamy contents in the upper respiratory tract,
  - petechiae under serous membranes (typically thymus ),
  - liquid blood,
  - inflammatory organ changes (middle ear, lungs).

Chronic hypoxic changes in internal organs occur in up to 60% of infants.

Traumatic damage in the area of the skull, the spinal canal and the connection between the skull and the spine can be a sign of violent death (the so-called *shaken baby syndrome* ). Blood splotches in the conjunctivae and face, or the presence of bedding remains in the mouth, may appear in connection with mechanical suffocation.

## Methods

Before starting the autopsy, it is recommended to perform X-ray and CT . During the autopsy, samples are taken for microbiological examination, which may be positive for RSV , parainfluenza or influenza . From laboratory examinations, toxicology and the determination of hereditary metabolic disorders are used in particular .

## Links

## Reference

## Použitá literatura

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## Externí odkazy

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Kategorie:Pediatric Kategorie:Soudní lékařství