

WHAT IS MULTICYSTIC DYSPLASTIC KIDNEY?

Between 1 in 1,000 and 1 in 4,300 babies are born with MCDK each year.

Multicystic dysplastic kidney (MCDK) is a pediatric renal condition in which one or both kidneys do not develop normally in the womb. Instead of ordinary kidney tissue, multiple cysts develop, causing the kidney to be nonfunctional. In a majority of cases, only one kidney is affected, and the other, healthy kidney will grow larger to compensate for the cystic one. The nonfunctioning kidney may shrink and disappear by the time the child is five years old.

01 | Symptoms

MCDK usually does not cause any symptoms, but because one kidney does not work, children born with this condition may have a higher risk of urinary tract infections and high blood pressure when they become adults. Other urinary tract problems affecting the working kidney can increase the risk of developing chronic kidney disease.

02 | Types

Two types of MCDK can occur:

- **Unilateral MCDK** – only one kidney has cysts. This is the most common type and is usually harmless. Children born with this type will suffer few, if any, health risks but should be monitored for long-term side effects.
- **Bilateral MCDK** – both kidneys develop cysts and are therefore nonfunctional. This type of MCDK is almost always fatal, though in rare cases, those who survive may develop kidney failure and require dialysis or a kidney transplant. Bilateral MCDK can also affect the development of the lungs and lead to congenital abnormalities such as changes in the shape of the face or the limbs.

03 | Treatment

Most cases of MCDK are diagnosed before birth, during a prenatal ultrasound at around 20 weeks into the pregnancy. In an ultrasound, the kidney will appear as several cysts with no surrounding functioning kidney. MCDK can also be detected by measuring the levels of amniotic fluid. After birth, further ultrasounds, MRI, or CT scans may be used to confirm the diagnosis.

For more information on MCDK and supportive resources, please visit niddk.nih.gov.

Did You Know?

MCDK is more common in boys than girls.

References

<https://www.childrenshospital.org/conditions/multicystic-dysplastic-kidney>

<https://www.niddk.nih.gov/health-information/kidney-disease/children/>

<https://www.chop.edu/conditions-diseases/multicystic-dysplastic-kidney>

<https://infokid.org.uk/conditions/multicystic-dysplastic-kidney-mcdk/>

<https://pmc.ncbi.nlm.nih.gov/articles/PMC10195>

<https://www.medicalnewstoday.com/articles/multicystic-dysplastic-kidney>