

Multicystic Dysplastic Kidney (MCDK)

What is a multicystic dysplastic kidney (MCDK)?

Multicystic dysplastic kidney is a common condition. It happens when one kidney doesn't get put together correctly as it's forming in the womb. If something goes wrong during development, it is possible to end up with a MCDK: a kidney full of cysts and scar tissue that doesn't work at all, and that eventually gets reabsorbed by the body. Fortunately, the remaining normal kidney is usually able to take over all the kidney function that is needed by the body.

Can both kidneys be MCDK?

If both kidneys are MCDK, the baby usually doesn't survive. This is because the kidneys make amniotic fluid which is needed for a normal pregnancy and normal lung development.

How common are multicystic dysplastic kidneys?

1 in every 3,500 people have a multicystic dysplastic kidney. But, that number may actually be higher because some people who have it never know about it.

Can multicystic dysplastic kidneys run in families?

There are rare cases when multicystic dysplastic kidney runs in families because of a genetic trait. However, most of them are not inherited. Kidney development in the womb is complex, with hundreds of thousands of steps to get a kidney that works correctly. If just one step goes wrong, an abnormal kidney may form. The reason for this is not known. It is not caused by something that the child's mother did during pregnancy.

What symptoms can occur with multicystic dysplastic kidneys?

Multicystic dysplastic kidney does not cause any symptoms at all. The condition is usually found during a prenatal ultrasound or when a doctor feels a lump in the belly during a routine physical examination.

How are multicystic dysplastic kidneys diagnosed?

Multicystic dysplastic kidneys are usually found with a kidney ultrasound after the baby is born. Sometimes a special radiology scan is needed to tell the difference between a multicystic dysplastic kidney and a blocked kidney.

What is the treatment?

The multicystic dysplastic kidney requires no treatment. Over time, the MCDK is absorbed by the body and just goes away. Many people know someone who "only has one kidney." These are often people who had a MCDK that shrank and vanished before a doctor could diagnose it.

What are possible problems that may develop?

MCDK does not usually cause any problems. But in some rare cases, there may be problems in the normal kidney. These problems include a blockage of urine flow, or backward flow of urine from the bladder to the kidney, which causes urinary tract infections (bladder infections). This makes it important for patients with MCDK to continue seeing a kidney doctor for the first few years of life, even though the MCDK itself does not usually cause a problem.

What may happen in the future?

The multicystic dysplastic kidney has an excellent long-term outlook. Your child will most likely have one working kidney for the remainder of their life.

Can multicystic dysplastic kidneys be prevented?

There is no way to prevent multicystic dysplastic kidney from happening.

Is a multicystic dysplastic kidney the same as polycystic kidney disease?

Multicystic dysplastic kidney is **NOT** polycystic kidney disease (ADPKD or ARPKD).

Polycystic kidney disease is inherited and both kidneys have cysts (collections of fluid) and don't work well.

How can I keep my one working kidney healthy?

Children with one healthy kidney need to take special care to keep their kidney healthy.

This includes:

- Regular visits with a doctor to check blood pressure
- Lots of exercise and healthy food choices. Being overweight can cause a lot of problems in a person with only one kidney.
- Do not take ibuprofen or other non-steroidal anti-inflammatory drugs (NSAIDs)
- Make sure your child doesn't get dehydrated
- Bring your child to a doctor if you think s/he is dehydrated (has vomiting or diarrhea for 1 day or more)

Do I have to limit sports or other activities?

The kidney sits deep inside your body, which protects it from most injuries. Your child can walk, run, ride a bike or drive (if they normally drive). The risk of hurting your kidney during sports or recreation is very small. Most kidney doctors think that the benefits of exercise are more important than the very small risk of injury. Some people like to wear a kidney shield while playing contact sports. If you want to play a contact sport (such as football), ask your kidney doctor for advice.