

PRINEhealth

Polycystic Kidney Disease (PKD)

Causes, Symptoms, Diagnosis, and Treatment



Definition of PKD

- A genetic disorder causing fluid-filled cysts in the kidneys
- Can lead to kidney failure and other complications



Types of PKD

- **Autosomal Dominant PKD (ADPKD)**
- More common
- Symptoms appear in adulthood
- **Autosomal Recessive PKD (ARPKD)**
- Rarer but more severe
- Symptoms appear in infancy or childhood

Causes and Risk Factors

Genetic Mutations

- ADPKD: PKD1 and PKD2 gene mutations
- ARPKD: PKHD1 gene mutation

Hereditary Nature –
Runs in families

Other Risk Factors:
High blood pressure,
lifestyle factors

Slide 5: Symptoms of PKD

- **High blood pressure**
- **Back or side pain**
- **Blood in urine**
- **Frequent kidney infections**
- **Enlarged kidneys**
- **Kidney stones**

Complications of PKD

- Chronic kidney disease (CKD) → Kidney failure
- Liver cysts
- Heart valve abnormalities
- Aneurysms (brain blood vessel swelling)
- Pregnancy complications



Diagnosis of PKD

- **Imaging Tests:**
 - Ultrasound
 - CT scan
 - MRI
- **Genetic Testing:** Identifies gene mutations



Treatment and Management

No cure, but symptoms can be managed

- **Medications:**

- Blood pressure control (ACE inhibitors, ARBs)
- Pain management
- Tolvaptan (for slowing cyst growth)

- **Dialysis or Kidney Transplant:** For advanced cases



Lifestyle and Preventative Measures

- Low-sodium, kidney-friendly diet
- Hydration (but avoiding excessive fluid intake)
- Regular exercise
- Avoiding smoking and alcohol
- Managing blood pressure



Conclusion

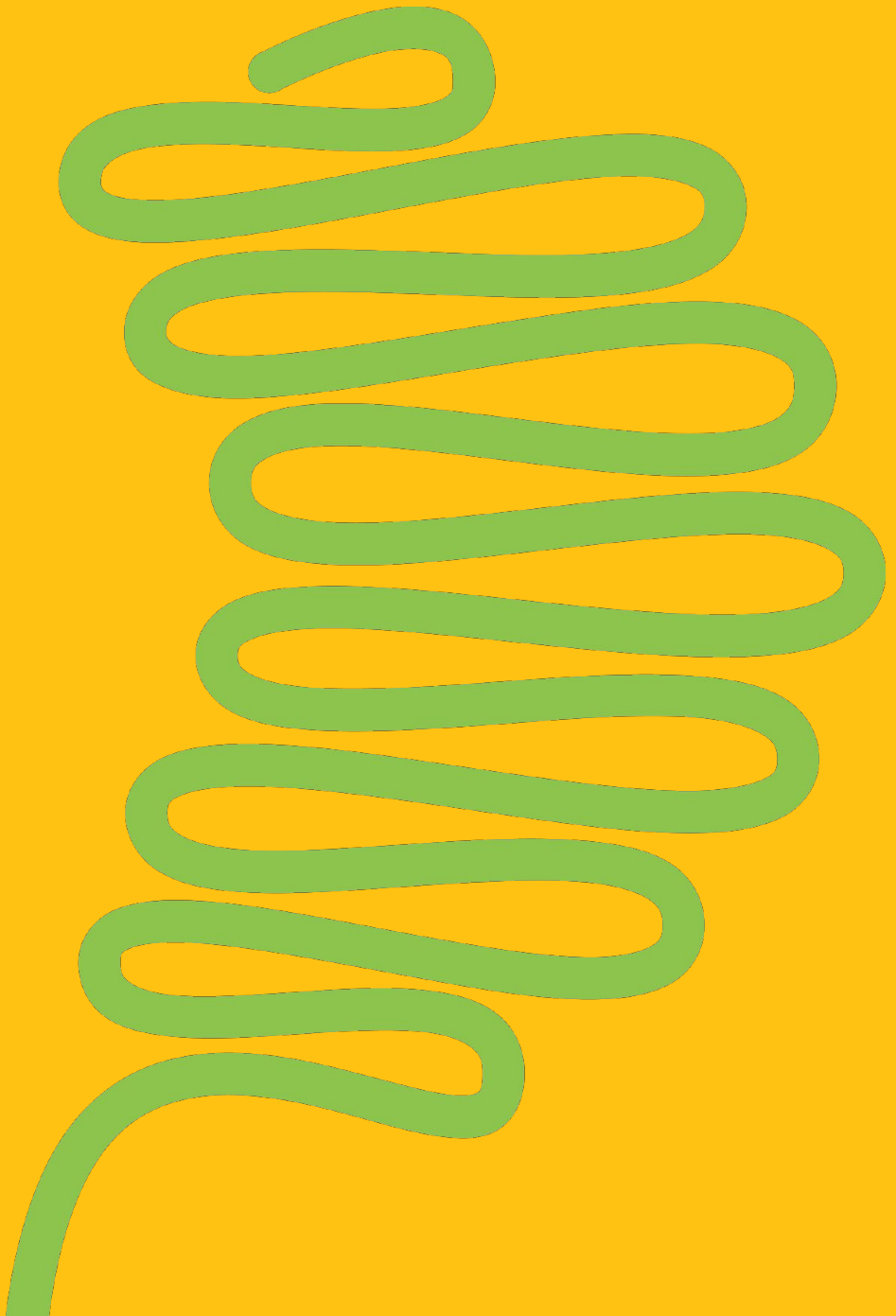
- PKD is a serious genetic condition affecting kidney function
- Early diagnosis and management can slow progression
- Ongoing research aims to find better treatments

References and Resources



- <https://www.kidney.org/kidney-topics/polycystic-kidney-disease>
- <https://pkdcure.org/about-the-disease/adpkd/kidney-101/>

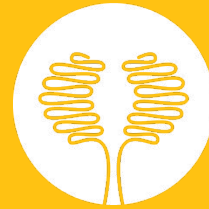
- <https://www.mayoclinic.org/diseases-conditions/polycystic-kidney-disease/symptoms-causes/syc-20352820>
- <https://my.clevelandclinic.org/health/diseases/5791-polycystic-kidney-disease>



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QUESTIONS?

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