

Kidney Disease

ACROSS THE LIFESPAN

Children & Teenagers

Birth Defects Affecting Kidneys³

- 1 Renal Agenesis**
(missing organ or organ's cells)
- 2 Renal Dysplasia**
(abnormal cells)
- 3 Ectopic Kidneys**
(abnormal place or position)



Primary hereditary causes (passing of genetic information from parent to child) of kidney failure in children.²

Autosomal Recessive Polycystic Kidney Disease (ARPKD): 2.8% leading to kidney failure
Alport syndrome: (damages the tiny blood vessels in the kidneys) **1.4% of kidney failure in children**



Congenital & Hereditary Kidney Abnormalities



Throughout childhood, **genetic abnormalities of the kidney and urinary tract** continue as a primary cause of kidney failure in children.²



Even at ages 13–17, 21.8% of the primary cause of kidney failure in children with incident kidney failure is Congenital anomalies of kidney and urinary tract (CAKUT).²



Medical advances and improved care have helped many people who are born with genetic and hereditary kidney abnormalities to survive into adulthood.

Causes of Kidney Disease In Children & Teenagers

Ages
0-4



Birth defects and hereditary disease are the leading causes of kidney failure in children from birth to age 4.³

Ages
5-9 & 10-14



This age group develops kidney failure due to **nephrotic syndrome** (too much protein in your urine), **systemic disease**, and **hereditary disease progression**.³

Ages
15-19



For ages 15-19, **glomerular** (blood filtering unit in the kidneys) **diseases** are the leading cause of kidney failure.³

Kidney Failure That Requires Kidney Replacement Treatment: Per Million Population (PMP)¹

Birth-Age 4:
9.1 PMP



Ages 5-9:
5.2 PMP



Ages 10-13:
9.3 PMP



Ages 14-17:
17.5 PMP



Adults & Seniors

Major Causes Of Kidney Disease In Adults



Diabetes⁶



High Blood Pressure⁶



Glomerulonephritis⁷
(severe inflammation of the kidney)



Lupus Nephritis⁷
(an autoimmune disease)

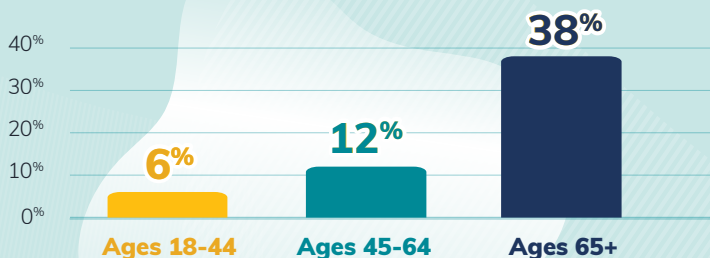


IgA Nephropathy⁷
(autoimmune disease that leads to build up in the kidney's filtering units and ultimately damage)



Anti-GBM Disease⁷
(body produces antibodies that attack the lungs and kidneys)

Chronic Kidney Disease (CKD) Is More Common As People Age⁶

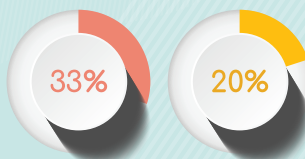


Approximately **37 Million US adults** have CKD-but most of them may not know they have it.⁶

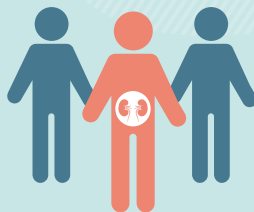
Autosomal Dominant Polycystic Kidney Disease (ADPKD)



This genetic disorder causes numerous cysts to grow in the kidneys. Signs and symptoms typically develop between the ages of 30 and 50.⁸



~33% of adults with **diabetes** and **20%** with **high blood pressure** may develop CKD.⁵



1 in 3

US adults are at risk of developing life-threatening **kidney disease**.⁵

Discover kidney disease prevention strategies on Otsuka's Patient Education Network (OPEN), including kidney-healthy recipes!

References

1. US Renal Data System 2019 Annual Data Report: Epidemiology of Kidney Disease in the United States. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases. <https://usrds.org/media/2371/2019-executive-summary.pdf>. Published 2019. Accessed June 2021.
2. US Renal Data System 2020 Annual Data Report, Chapter 7, ESRD in Childhood & Adolescence: Epidemiology of Kidney Disease in the United States. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases. <https://adr.usrds.org/2020/end-stage-renal-disease/7-%20esrd-among-children-and-adolescents/>. Published in 2020. Accessed June 2021.
3. Kidney Disease In Children. National Institute of Diabetes and Digestive and Kidney Diseases. <https://www.niddk.nih.gov/health-information/kidney-disease/children/>. May 2021.
4. Halbach S, Flynn J. Kidney Disease In Special Populations: Adolescents. Renal & Urology News. <https://www.renalandurologynews.com/home/decision-support-in-medicine/nephrology-hypertension/kidney-disease-in-special-populations-adolescents/>. Published 2017. Accessed May 2021.

5. Kidney Disease: The Basics. <https://www.kidney.org/news/newsroom/fsindex/>. Accessed June 2021.
 6. Chronic Kidney Disease In the United States, 2021. Centers for Disease Control & Prevention (CDC). <https://www.cdc.gov/kidneydis-ease/pdf/Chronic-Kidney-Disease-in-the-US-2021-h.pdf>. Accessed May 2021.
 7. Causes of Chronic Kidney Diseases, NIDDK/NIH. <https://www.niddk.nih.gov/health-information/kidney-dis-ease/chronic-kidney-disease-ckd/causes/>. Accessed May 2021.
 8. Autosomal Dominant Polycystic Kidney Disease. <https://www.niddk.nih.gov/health-information/kidney-dis-ease/polycystic-kidney-disease/autosomal-dominant-pkd>. Accessed August 2021.
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