

# Autosomal Dominant Polycystic Kidney Disease (ADPKD)

Fact sheet

**ADPKD** is a genetic disease characterised by the progressive development and enlargement of fluid-filled cysts in the kidneys and progressive loss of kidney function<sup>1</sup>



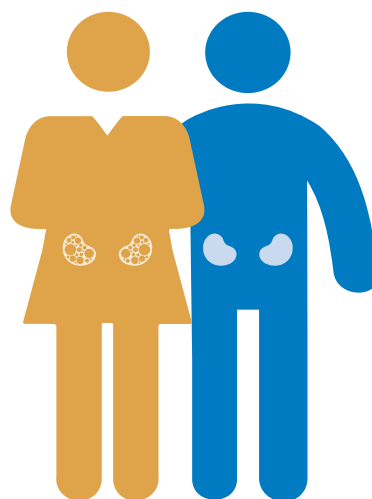
The prevalence of ADPKD is 3.96 per 10,000 in the general population<sup>3\*</sup>  
\*Based on EU data

## ADPKD is the most common inherited kidney disease<sup>2</sup>

- ADPKD is caused by faulty genes that can affect both sexes of all age, racial and ethnic groups<sup>5</sup>
- In the early stages of ADPKD patients often do not experience any symptoms<sup>6</sup>
- Diagnosis is often the result of screening among those with a family history of ADPKD<sup>6</sup>
- By the time a decline in kidney function is identified, the destruction in kidney anatomy can be advanced<sup>7</sup>

## ADPKD has a 'dominant' inheritance pattern

This means that, if one parent has the disease, there is a 50% chance that the disease will pass to a child of either gender<sup>8</sup>



ADPKD frequently leads to **End-Stage Renal Disease (ESRD)** and the need for treatment with **Renal Replacement Therapy (RRT)** - dialysis or kidney transplant<sup>9</sup>

**4<sup>th</sup>**

ADPKD is the 4th leading cause of ESRD in adults<sup>10</sup>

**58**

The mean age at which patients with ADPKD start RRT is 58 years<sup>11</sup>

**6%**

Up to 6% of Australians with ESRD have ADPKD<sup>12</sup>

## THE PHYSICAL BURDEN

- ADPKD can cause a significant increase in kidney volume – **up to 4-fold**<sup>8</sup>
- The enlarged kidneys can affect a person's physical appearance and can limit a person's ability to perform everyday tasks.<sup>7</sup>
- ADPKD patients experience a variety of complications, including hypertension, chronic and acute pain, repeated urinary tract infections (UTIs) and blood in the urine (haematuria)<sup>13</sup>



## THE PSYCHOLOGICAL AND EMOTIONAL BURDEN

- In addition to the physical symptoms of the disease, ADPKD can cause marked psychological and emotional suffering, even in the early stages.<sup>14</sup>
- With disease progression there is a marked decline in quality of life<sup>15</sup>
- People with ADPKD are more likely than those in the general population to suffer from anxiety and depression<sup>16</sup>

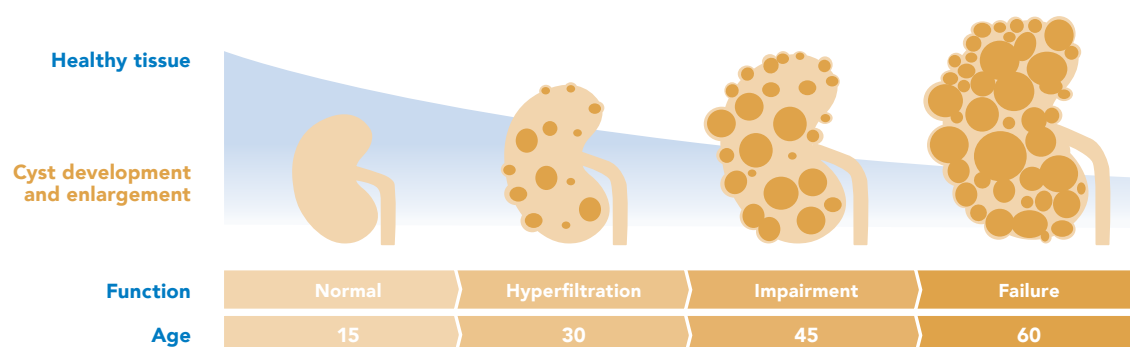


## THE FINANCIAL BURDEN

- ADPKD imposes high, direct and indirect costs on the community. Factors involved include loss of productivity, outpatient care, drug treatment, hospitalisations and, in the later stages, the frequent need for Renal Replacement Therapy (RRT).<sup>17-19</sup>



## Kidney disease progression in ADPKD<sup>20</sup>



Adapted from Grantham et al, 2011.

**REFERENCES** 1. Patel V, et al. Current Opinion in Nephrology and Hypertension. 2009;18:99-106. 2. Spithoven EM, et al. Nephrol Dial Transplant. 2014;29(Suppl 4):iv15-25. 3. Willey CJ, et al. Nephrol Dial Transplant. 2016;0: 1–8. 4. Australian Bureau of Statistics. Population Clock Population clock – on 24 September at 03:46:53 PM (Canberra time). 5. Torres VE, Harris PC. Kidney Int. 2009 July ; 76(2): 149–168. 6. Thong KM, Ong ACM. Q J Med 2013; 106:639–646. 7. Grantham JJ, et al. Clin J Am Soc Nephrol. 2006;1:148–157. 8. Polycystic Kidney Disease Charity website. Fast facts about ADPKD. Available at: <http://pkdcharity.org.uk/about-adpkd/just-diagnosed/fast-facts-about-adpkd> [Last accessed: 24 Sept 2018] 9. Harris T, Sandford R. Nephrol Dial Transplant. 2017;1–11. 10. Masoumi A, et al. Therapeutics and Clinical Risk Management. 2008;4(2):393–407. 11. Spithoven EM, et al. Kidney International. 2014;86:1244–1252. 12. ANZ Dialysis and Transplant Registry, 40th Report, 2017. 13. Torres VE, et al. N Engl J Med. 2012;367(25): 2407–2418. 14. Baker A, et al. Clinical Kidney Journal. 2015;8(5):531–537. 15. Eriksson D, et al. Nephrol Dial Transplant 2017;32: 2106–2111. 16. Pérez-Dominguez T, et al. Nefrologia 2012;32:397v9. 17. Eriksson D, et al. BMC 2017;17:560. 18. Degli Esposti L, et al. Clinico Econ Outcomes Res. 2017;9:233–239. 19. Lentine KL, et al. Clin J Am Soc Nephrol. 2010;5:1471–1479. 20. Grantham JJ, et al. Nat Rev Nephrol. 2011;7:556–566. Produced as an educational resource by Otsuka Australia Pharmaceutical Pty Ltd, ABN 20 601 768 754. Chatswood NSW 2067. October 2018. JIN-1810-56.00.