

Chromosome 16 case study

Business



Mr.. Newman had a genetic screening done that showed a mutation on Chromosome 16.

His particular type of mutation results in the formation of an abnormal membrane protein called polycystic, which was inherited from one of his parents. The mutation takes place in 1 or 2 homologous chromosomes. Being as though Mr.. Newman only has one copy the disease was able to lie latent for many years.

As a result he now has two abnormal polycystic genes. Polycystic genes act as receptors for extracellular growth.

Cystic lesion has formed in Mr.. Newman's kidney.

Cyst forms " when cells in any region of the nephron divide rapidly. Proximal tubule cells have divided. Dilated segment fill with glomerular filtrate. The dilated segments grow until it eventually separates from the nephron; after it separates the cyst forms. A cyst has formed and it continues to grow.

Cysts begin to secrete calcium and chloride ions into the lumen. Mr..

Newman's kidney weighs 4 kilograms. It has multiple cysts of ' airing size and shapes