

The Genetics of Usher syndrome

Video description: Kevin (a male with short brown hair and black collared shirt) sits in front of a dark blue background, looks into the camera and signs.

TRANSCRIPT: Hi there. Today's topic is: "How did my child get Usher syndrome?" Is it inherited? And if so, how?? I'll explain, but I want you to know this is a challenging concept to explain! I'll try my best! Genetics is the study of how genes are passed from parents to children. Genes occur in pairs. and each parent passes on one of these two genes. Everyone inherits genes from their parents. Some of you may be a "carrier" for Usher syndrome. A carrier has an Usher gene but does not have Usher syndrome. but they can pass on the gene for Usher syndrome to their children, grandchildren, etc., until several generations later, a child is born with Usher syndrome. Let's look at the genes of this child's mother and father. They are each carriers of an Usher gene. Remember, they do not have Usher syndrome themselves. They are just carriers. If they each pass on an Usher gene to their child, that child will have Usher syndrome. Now, another possibility could be that one (carrier) parent passes on an Usher gene but the other (carrier) parent does not pass on the Usher gene. In that case, the child will just be a carrier. That Usher gene could be passed on through multiple generations - 5, 7, 8 generations - until years later, that carrier mates with another carrier, and a child with Usher is born. Another powerful scenario is when both parents have Usher syndrome, all of their children will have Usher syndrome. This can happen over multiple generations as well. There are lots of possibilities, depending on individual situations. But it's all so fascinating, isn't it!?? See you tomorrow!