

Name \_\_\_\_\_

# Morquio Syndrome

Morquio syndrome is an uncommon inherited disease that affects major organs of the body. Only one in 200,000 babies are born with Morquio syndrome. There are two types of Morquio syndrome, type A and type B. Both types have very similar symptoms. Morquio syndrome is a type of dwarfism.

The characteristics of a person with Morquio syndrome include abnormal development of bones, including the spine; large head; knock knees; and unusual chest growth. Morquio syndrome was first described by Dr. Luis Morquio in Uruguay in 1929. At the same time, a radiology doctor in England, Dr. James Brailsford, also described the disease. For this reason, Morquio syndrome is sometimes called Morquio-Brailsford syndrome.

Morquio syndrome is caused by the body not having enough of a particular enzyme. This enzyme helps cells break down waste. A person born with Morquio syndrome doesn't show any symptoms at birth, but after two to three years, enough waste has built up in the cells that symptoms begin to develop. Morquio is a progressive disease – a disease that gets worse over time.

Morquio syndrome is an inherited disease; it is not contagious. A person either is or is not born with the disease. Just like eye color, skin color, or handedness (right or left), people with Morquio syndrome inherit the disease from their parents. Morquio syndrome is a recessive inherited disease. This means that in order to be born with the disease, a person must inherit a mutated gene from both the mother *and* the father. If a baby inherits a mutated gene from only one parent, the baby will be a carrier of the disease. A carrier is a person who doesn't show any symptoms or have the disease, but still has the mutated gene and can pass the mutated gene onto his/her own children. Often carriers don't know that they are carriers because they have no symptoms. Genetic testing is the only way to find out if a person is a carrier. If both parents are carriers for Morquio syndrome they have a 1 in 4 chance of having a child with the disorder.

Although it is possible for people with Morquio syndrome to live long lives, their lives are difficult and there are many obstacles with which they must deal. There are many doctor appointments with a variety of doctors including geneticists, cardiologists, ophthalmologists, and orthopedists. Some of the obstacles people with this disease face are poor vision and hearing, limited mobility, trouble breathing, and heart problems. The good news is that Morquio syndrome does not affect the brain or a person's ability to learn.

## Source:

"Morquio Syndrome." U.S. National Library of Medicine. 2014. Web. 7, April. 2014

"What is Morquio A?" Morquiosity.com. n.d. Web. 7, April. 2014

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**Directions:** Using the article for support, answer the questions below.

1. Describe what a person with Morquio syndrome looks like.
2. Explain how two parents who do not have Morquio syndrome can give birth to a child who does have Morquio syndrome.
3. Describe the difference between how a person catches a cold and how a person gets Morquio syndrome.
4. List some of difficulties that a person with Morquio syndrome can face during his or her life.
5. Should a student with Morquio syndrome be allowed to attend mainstream classes with “abled” students? Justify your answer using details from the text.