



What is muscular dystrophy?

Aside from watching the Jerry Lewis Telethon on Labor Day every year, most people, including our own members, don't have a clear understanding of the diseases that are termed "muscular dystrophy." We know the effects because we see them on television or when we meet those families afflicted with the disease, but what are these diseases?

Muscular dystrophy is a genetic disorder that weakens muscles that help the body move. People with MD have incorrect or missing information in their genes, which prevents them from making the proteins they need for healthy muscles. Because MD is genetic, people are born with the problem—it's not contagious and you can't catch it from someone who has it.

MD weakens muscles over time, so children, teens and adults who have the disease can gradually lose the ability to do the things most people take for granted, like walking or sitting up. Someone with MD might start hav-

ing muscle problems as a baby, or their symptoms might start later. Some people even develop MD as adults.

“The more we know about the diseases we are fighting, the harder we can fight to find a cure.”

There are several major forms of muscular dystrophy that affect children or teens, each of which weakens different muscle groups in various ways.

Duchenne muscular dystrophy (DMD), the most common type of the disease, is caused by a problem with the gene that makes a protein called *dystrophin*. This protein helps muscle cells keep their shape and strength. Without it, muscles break down and a person gradually becomes weaker. DMD affects boys, and the symptoms usually begin between ages 2 and 6. By age 10 or 12, kids with DMD often need to use a wheelchair. The heart may also be affected, and people with DMD need to be followed closely by a heart and lung specialist. They can also develop scoliosis (curvature of the spine) and tightness in their

Becker muscular dystrophy (BMD), like DMD, affects boys. The disease is similar to DMD, but its symptoms may start later and can be less severe. With BMD, symptoms like muscle breakdown and weakness sometimes don't begin until age 10 or even adulthood. People with BMD can also have breathing, heart, bone, muscle and joint problems. Many people with BMD can live long, active lives without using a wheelchair. How long a person with BMD can live varies depending on the severity of any breathing and heart problems.

Limb-girdle muscular dystrophy (LGMD) affects boys and girls equally, weakening muscles in the shoulders and upper arms and around the hips and thighs. LGMD can begin as early as childhood or as late as mid-adulthood and it often progresses slowly. Over time, a wheelchair might be necessary to get around. There are many different types of LGMD, each with its own specific features.

These examples are only three of the more than 40 muscle-wasting diseases under the umbrella of the Muscular Dystrophy Association. Every day, researchers are looking for ways to fix the defective genes that lead to MD so they can make the right proteins. Other researchers are trying to make chemicals that will act like these proteins in the body. They hope that this will help the muscles to work properly in people with MD. Doctors working with the MDA are dedicated to finding the best ways to treat the symptoms of MD so that kids, teens and adults can live as comfortably and happily as possible. While the cure has not yet been found, we are getting closer every day.

Every branch that holds fund-raisers for the MDA helps these people afflicted with MD in all the ways above. The more we know about the diseases we are fighting, the harder we can fight to find a cure. These kids and adults need us every step along the way. ☒