Dwarfism

Have you ever been in a shopping mall or at school and seen a person who looks like someone in elementary school but, when you take a closer look, is a lot older?

A dwarf is a little person whose height is 4 feet 10 inches or under when they are an adult. Dwarfism is a genetic disorder and is present at birth.

Dwarfism is caused by a change in someone’s genes. These changes affect the development of cartilage and bones. Since the longest bones in the human body are located in the arms and legs, the problems in bone development often means shorter limbs, which give dwarfs their short build.

**What Are the Types of Dwarfism?**

Do all dwarfs look alike? No. All dwarfs are short, but different types of dwarfism have different causes and different physical traits.

1. **Achondroplasia** is the most common kind of dwarfism. This type of dwarfism happens in 1 of every 15,000 to 40,000 births. People with achondroplasia have a problem changing cartilage to bone while growing, especially in the long bones of the arms and legs.

People with achondroplasia have a regular-sized upper body but have shorter arms and legs. Their heads are usually larger than average, and they have a large forehead. Their fingers are typically short. Adults with achondroplasia can develop a bend in their lower back, and some have bowed legs. The average height for an adult with achondroplasia is 4 feet tall.

2. **Diastrophic dysplasia** happens in about 1 out of every 100,000 births. People with diastrophic dwarfism have short calves and forearms and bend in their spine. They can have problems with their feet (sometimes called “club foot”) and problems with their thumbs (sometimes called "hitchhiker thumbs"). Most diastrophic dwarfs have problems with their joints which makes moving around tough. Sometimes, it can be difficult for people with this type of dwarfism to walk, especially when they get older. Some people may need to use crutches, a scooter, or a wheelchair to get around.

3. **Spondyloepiphyseal dysplasias** affects bone growth and can result in dwarfism. People with this type of dwarfism are most commonly referred to as SED. People with SED have a short torso, neck, and limbs, but average-sized hands and feet. People with SED also can have bend in their spine that can become worse during childhood and can lead to breathing problems. Their spine can grow crooked and cause spinal cord damage. People with SED also may problems moving their joints movement and get arthritis when they are young.

**How Is it Caused?**

So why are people born with dwarfism? Most types of dwarfism are genetic, meaning they're the result of a change in genes that was either passed on from parent to child or happened when a gene change (mutation) happened for the first time in the egg or sperm cell before conception.

Because dwarfism is in a person's genes, a baby can have dwarfism even if they have two parents who are regular sized. In fact, children with achondroplasia are often born to regular sized parents. In the same way, it is also possible for two dwarfs to have an average-sized child.

**How Is it Diagnosed?**

Doctors are able to diagnose most cases of achondroplasia before a baby is born by doing an ultrasound. The ultrasound shows doctors if a baby's arms and legs are shorter than average or if the baby's head is larger.

Some other types of dwarfism cannot be diagnosed until after a baby is born. If it's thought a child may have dwarfism, the doctor can use X-rays to see if the bones are growing at an abnormal rate, or if they are shaped differently.