

Dwarfism

Common Names: Short stature

Causes/Etiology: Most dwarfism-related conditions are genetic disorders, but the causes of some disorders are unknown. Most occurrences of dwarfism result from a random genetic mutation in either the father's sperm or the mother's egg rather than from either parent's complete genetic makeup.



- Achondroplasia
 - o Most common form of dwarfism (occurs in about 1 in 40,000 people)
 - o Achondroplasia impairs the growth of bone in the limbs and causes abnormal growth in the spine and skull.
- Growth hormone deficiency
 - o Growth hormone deficiency (GHD), also known as pituitary dwarfism, is a condition caused by insufficient amounts of growth hormone in the body

Incidence: Less than 200,000 people in the US population; 1 in 40,000 people

Characteristics:

- Adult height of less than 4 feet 10 inches
- Short arms and legs, with particularly short upper arms and upper legs
- Short fingers, often with a wide separation between the middle and ring fingers
- Progressive development of bowed legs and swayed lower back

IDEA Category: Growth Hormone Deficiency is classified as “Other Health Impairment”

DSM-V Category: Does not have a DSM V diagnosis

Deficits:

- Problems in growth and development often result in complications with poorly developed organs.
- Weight gain that can further complicate problems with joints and the spine and place pressure on nerves.
- Delays in motor skills development, such as sitting up, crawling and walking.
- Children with dwarfism are particularly vulnerable to teasing and ridicule from classmates. Because dwarfism is relatively uncommon, children may feel isolated from their peers.
- People of average height may have misconceptions about people with dwarfism. And the portrayal of people with dwarfism in modern movies often includes stereotypes. Misconceptions can impact a person's self-esteem and limit opportunities for success in school or employment.

Long-Term Developmental Outcomes:

- With the exception of potential medical complication, their long-term developmental outcomes will follow a similar pattern as typical developing children

Assessment Approaches: Approaches in screening and diagnosis process (conducted by Primary care Physicians/Neurologists)

- Measuring height, weight, and body proportions will show signs of slowed growth rate
- A magnetic resonance imaging (MRI) scan may reveal abnormalities of the pituitary gland or hypothalamus, both of which play a role in hormone function.
- Your doctor may order imaging studies, such as X-rays, because certain abnormalities of the skull and skeleton can indicate which disorder your child may have.
- Your doctor may order tests that assess levels of growth hormone or other hormones that are critical for childhood growth and development.
- Your pediatrician may take a history of stature in siblings, parents, grandparents or other relatives to help determine whether the average range of height in your family includes short stature.

Interventions and Treatments: The goal of treatment is to maximize functioning and independence. Most dwarfism treatments don't increase stature but may correct or relieve problems caused by complications.

- Surgical:
 - o Correcting the direction in which bones are growing
 - o Stabilizing and correcting the shape of the spine
 - o Increasing the size of the opening in bones of the spine to alleviate pressure on the spinal cord
- Hormone Therapy
- Ongoing Health Care:
 - o Occupational therapist, who specializes in therapy to develop everyday skills and to use adaptive products that help with everyday activities.
 - o Developmental therapist, who specializes in therapy to help develop age-appropriate behaviors, social skills, and interpersonal skills.

Contributions of the School Psychologist:

- Some children may need additional assistance to help them keep up with classmates and function in the classroom setting (specialized instruction & physical environment)
- School personnel and family should work together to monitor the progress the student is making in school as well as any side effects any treatments might be causing
- Inform teachers and school staff about the child's condition and possible bullying
- To help kids feel more confident about themselves, we can assist by providing dwarfism education programs for staff and student.
- One on one or group counseling may help the student



Resources for parents, teachers and professionals:

- <https://www.mayoclinic.org/diseases-conditions/dwarfism/diagnosis-treatment/drc-20371975>
- <https://www.lpaonline.org/>
- <http://dwarfparents.com/dwarfism-adaptations-at-school>