

# Constitutional Delay of Growth

## Contributing Authors:

Dr. Craig Alter

Clinical Director, Endocrinology  
The Children's Hospital of Philadelphia  
Philadelphia, Pennsylvania

\* \* \* \* \*

Susan L. Smith, RN CDE CNS PNP  
Director of Medical Education/Marketing  
The **MAGIC** Foundation  
Oak Park, IL

This brochure is for informational purposes only. Neither The MAGIC Foundation nor contributing medical professional assumes any liability for its content. Consult your physician for diagnosis and treatment.

# **M**ajor **A**spects of **G**rowth **I**n **C**hildren

The MAGIC Foundation is a national nonprofit organization created to provide support services for the families of children afflicted with a wide variety of chronic and/or critical disorders, syndromes and diseases that affect a child's growth. Some of the diagnoses are quite common while others are very rare.

**MAGIC**  
continues and develops through  
membership fees, corporate  
sponsorship, private donations  
and fundraising.

## Constitutional Delay of Growth



**The MAGIC Foundation**  
Major Aspects of Growth In Children

---

Not an illusion or magical, but the caring  
for children and their families

\* \* \* \*

Dedicated to the growth and  
overall development  
of children

---

6645 W. North Avenue

Oak Park, IL 60302

708-383-0808/fax 708-383-0899

Parent Help Line/800 3 MAGIC 3

Web Site: [www.magicfoundation.org](http://www.magicfoundation.org)

## What is Constitutional Delay of Growth (CDG)?

One of the most common diagnoses made after a growth evaluation is CDG. These children, often called “late bloomers”, have a characteristic pattern of growth. CDG is considered more of a variant of normal growth, rather than a “disease process”.

Children with CDG are typically born with a normal birth weight and length, but in the first two years of life, show slow growth and thus lose height percentiles. There may be delayed dental development later in childhood. A similar pattern of growth is often seen in a parent. For example, the mother might recall her first menstrual cycle occurring late, such as after age 15. The father might recall being short but catching up towards the end of high school.

CDG is diagnosed more frequently in boys than girls but can occur in either sex. The growth rate between ages 3 and 10 should be normal so there should not be a further loss in percentiles. If there is a concern about the growth rate, further workup is recommended. However, when peers go through pubertal growth acceleration, children with CDG will lose percentiles as their onset into puberty is delayed.

Bone age x-ray of the left hand and wrist is delayed in CDG, but is also delayed in many other conditions. Thus, a delayed bone age supports the diagnosis of CDG, but is not conclusive.

### Should I take my child to see a growth specialist?

Your primary care team will help decide whether a consultation is needed. You should point out whether there was a similar pattern of growth in any of the family members.

### Questions to ask your Primary Care Physician

- Is my child short but growing well, such as at least 2¼ inches per year?
- Do you think the growth pattern is consistent with constitutional delay or suggestive of another diagnosis?
- Is the bone age or skeletal age delayed?
- Does it look like my child will catch up to his/her genetic potential?

### How is CDG Diagnosed?

Your primary care team can diagnose CDG, though sometimes a consultation with an endocrinologist is sought to confirm the diagnosis.

## What should I expect at the Endocrinologist's office?

The endocrinologist will take a detailed family history of heights and get an appreciation of the timing of growth of other family members. You can help out by asking grandparents about their height and timing of pubertal development.

Hand carry a copy of the growth charts. The more information you provide, the more accurate the assessment will be.

A detailed examination will be performed including a brief assessment of how far along your child is in terms of pubertal development.

There may be no laboratory tests requested, or there might be a bone age x-ray of the left hand and wrist as well as a blood test screening for other tests that can mimic CDG. There is no specific blood test to diagnose CDG.