

Early Puberty: What You Need to Know

Early puberty is when children go through puberty earlier than expected. In this handout, you will learn about early puberty and its signs. You will also learn how doctors treat it and the long-term effects.

WHAT IS NORMAL PUBERTY?

Normal puberty is when a child's body starts to grow and develop into a young adult body. There are 2 stages of puberty:

- **Adrenal puberty** is when the **adrenal glands** (small glands on top of the kidneys) cause the first signs of puberty.
- **Gonadal puberty** is when the **pituitary gland** (pea-sized gland in the brain that controls other glands in the body) makes hormones that tell the **gonads** (testes in boys, ovaries in girls) to make **sex hormones** (**testosterone** in boys, **estrogen** and **progesterone** in girls).

There are 2 types of gonadal puberty: **gonadotropin dependent puberty** and **gonadotropin independent puberty**.

WHAT IS EARLY PUBERTY?

Early puberty is when a child goes through earlier than expected for their age. Boys go usually through puberty between ages 9-14. Girls usually go through puberty between ages 8-13. In some cases, early puberty is normal. In other cases, a child should see a doctor.

WHAT CAUSES EARLY PUBERTY?

The causes of early adrenal puberty and early gonadal puberty are different.

- In some cases, **early adrenal puberty** is normal. In other cases, it is caused by a problem with the adrenal glands.
- **Early gonadotropin dependent puberty** can be caused by tumors, radiation or trauma to the central nervous system. In other causes, it can be **idiopathic**. This means doctors are not sure of the cause.
- **Early gonadotropin independent puberty** is caused by the gonads working without adrenal puberty starting. It can also be caused by certain medications or products with hormones.

WHAT ARE THE SIGNS OF EARLY PUBERTY?

- **In both boys and girls**, signs of early adrenal puberty include body odor, underarm hair, pubic hair and acne (pimples).
- **In boys**, signs of early gonadal puberty include growth of the penis and testes, more muscle mass, deepening voice and a growth spurt.
- **In girls**, signs of early gonadal puberty include breast growth, starting periods and a growth spurt.

HOW DO DOCTORS CHECK FOR EARLY PUBERTY?

- Review of your child's signs of puberty
- Physical exam
- Imaging tests. This can include a **bone age** (X-ray) of their left hand and an **MRI** of the brain. A bone age helps doctors tell how much your child's bones have grown and developed. The MRI checks the pituitary gland and the area around it.
- Blood test to measure hormone levels

HOW DO DOCTORS TREAT EARLY PUBERTY?

Treatment depends on the type of early puberty your child has.

- **If your child has early adrenal puberty**, he might not need treatment. If your child is overweight, weight loss can help slow down early adrenal puberty.
- **If your child has early gonadal puberty** that is happening slowly and with no serious causes, they might not need treatment. If it is caused by high hormone levels, your child can take medications until they reach an appropriate age to start puberty.

HOW CAN I HELP MY CHILD?

Reassure your child that the changes to their body are normal. They are just happening earlier than usual. Listen to your child's concerns and answer their questions. Treat your child appropriately for their age. Continue to help them with self-esteem.