



Early Breast Development (Premature Thelarche)

What is thelarche?

Thelarche is the start of breast growth, sometimes called “breast budding”.

Thelarche is one of the first physical signs of puberty starting. Typically, it starts between the ages of 8-12 and may be similar to puberty timing in other family members. Other medical conditions and nutritional factors can influence timing of breast development as well.

During puberty, the brain makes hormones which stimulate the ovaries to make estrogen. Estrogen causes breasts to develop, rapid growth in height and eventually the first period occurs. Other hormones cause pubic and underarm hair to grow.

How will a healthcare provider evaluate my child for premature thelarche?

- Your provider will ask when symptoms started, puberty timing in other family members, and if your child was exposed to something with estrogen or estrogen-like substances in them.
- Physical exam, including examining the breast tissue, pubic hair growth, external genitalia, and skin exam.
- Review of growth charts to look for the start of a growth spurt.
- Bone age x-ray of the hand.
- Laboratory tests for hormone levels.

What is premature (early) thelarche?

Premature thelarche is: the growth of breasts without other signs of puberty (growth spurt, pubic hair, or menstrual periods) prior to age 8.

Occasionally, a child may start making estrogen or may be exposed to estrogen before normal puberty begins. This may cause the breasts to grow without other signs of puberty.

Some other key facts:

- Most commonly occurs between 1 and 2 years of age, but may occur at a later age.
- One or both breasts may develop early.
- Usually the breasts develop partially and then stop or decrease in size until normal puberty begins.
- It is usually caused by temporary natural production of estrogen in the body.
- It can be caused by exposure to estrogen in medications or *possibly* by exposure to estrogen-like substances in products such as lavender and tea tree oil (essential oils), excess soy in food, or fertilizers.

When would a healthcare provider want to do further evaluation?

- If there are other signs of puberty prior to age 8
- If diagnosed in a less common time-frame (age 3-6)
- If there is a growth spurt around the time of breast development
- Rapid breast growth
- Advanced bone age
- Onset of periods prior to 9 years old
- Enlargement of the clitoris

What follow-up is needed?

Your child should have close follow-up with their primary care provider, pediatric endocrinologist or gynecologist every 4-6 months to assure slow progression of breast development and monitor for any other signs of puberty or a growth spurt.