## **Human growth & Development**

**Growth**: is an increase in the body size, or • changes in the body cell structure, function & complexity.

**Development**: is an orderly pattern of • changes in structure, thought s, feelings or behaviors resulting from maturation, experiences & learning.

**Maturation**: is the process of aging. It involves an individual biological ability, physiological condition more mature behaviors. The and desire to learn individual begins to adopt and show competence in new situations

**Maturity**: is the state of maximal function and integration or the state of being fully developed

**Puberty** is the first stage of adolescence peroid in • which sexual organs begin to grow and mature

Patterns of Growth and Development •

### **NORMAL GROWTH**

Most of us wind up with about the same build as our parents .

A baby is about 20 inches long at birth and will grow another 10 inches over the first year to reach about 30 inches by 1 year of age. During the second year of life, growth is half this fast, so at 2 years of age, the child will be about 35 inches tall. From 2 years until about 12 years of age, the child will grow at a steady rate of 2 to 2-1/2 inches a year.

The growth spurt that goes along with • adolescence begins at about age 11 in girls and 13 in boys. This pubertal growth spurt usually lasts 2 years and is accompanied by sexual development. Growth ceases between 16 and 18 years of age, when the growing ends of the bones fuse.

- A person's adult height is determined by many factors, including:
- 1-the heights of the parents •
- 2-the age at which puberty begins •
- 3-the length and vigor of the pubertal growth spurt.

#### Normal But Unusual Growth Patterns •

Variations from the usual pattern of growth may occur and still be within the range of normal. Some children are taller than expected at a given age, and some are shorter. Parents are more often concerned when their children are shorter than their age-mates than when they are taller, although most short children fall within the normal range of height.

## Familial short stature

Many children are short because they have inherited shortness from their parents. There will always be healthy individuals whose height will be in the low part of the normal range. This is called familial short stature.

## Constitutional growth delay

A common variant of the usual growth pattern occurs when a child is shorter than average for most of his or her life, then is late entering puberty. This condition is called **constitutional growth delay** with delayed adolescence or delayed maturation. More boys than girls seek medical attention for this condition, although it is not known whether it is really more common in boys. These children generally are the shortest among their age-mates

. Typical children with constitutional growth delay have been behind their age-mates in height since very early in childhood, but have continued to grow at a slow normal rate. They will enter puberty 2, 3 or even 4 years later than other children their age, but will have a normal growth spurt and end up about as tall as their parents.

It is not unusual for this type of growth to run in families. This type of growth delay may create stress for a child

# Very tall girl

A second type of normal, but unusual, growth • pattern is that of the **very tall girl**. It comes as no surprise to very tall parents that their children grow rapidly and are taller than other children. Some girls feel uncomfortable being 5 or 6 inches taller than their friends. This is an individual matter; some girls feel it is an advantage and enjoy their tallness, while others slouch and try to hide it.

# Thanks •