



# Human Growth and Development

## Module 6, Section 2

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This section contains information for Direct Support Persons (DSPs) who provide supports to adults and/or to children and young adults who receive home and community based services through one of the Division of DD's Medicaid Home and Community-Based Services waiver programs. The service delivery methods are participant and family directed. Direct care

providers can be employees of the person and his/her family, or employed through community agencies.

### What You Will Learn in This Section:

- The proper names for body parts
- The developmental ladder.
- The developmental milestones.
- The five senses.
- Different developmental rates.
- Sexuality.

### Developmental Milestones for Babies

At age one month, most children can...

- Raise their heads slightly when lying on their stomachs
- Briefly watch objects
- Make "noise in throat" sounds
- Pull away from a cloth or blanket on their faces

At age three months, most children can...

- Lift their heads and chests when lying on their stomachs
- Show vigorous body movement
- Follow a moving person with their eyes
- Recognize a bottle or breast
- Smile when someone speaks to them

At age six months, most children can...

- Sit with minimal support
- Roll from their backs to their stomachs
- Turn to locate and identify sounds

- Transfer objects from hand to hand and from hand to mouth
- Respond to friendly speech with a smile or coo

At age 12 months, most children can...

- Pull themselves up to stand and may step with support
- Pick things up with a thumb and one finger
- Nod their heads to signal "yes"
- Give affection
- Say two or three words

At age 2, most children can...

- Hand over toys upon request
- Kick a large ball
- Turn pages in a book (two or three at a time)
- Ask for items by name
- Recognize a familiar picture and know if it is upside down
- Use two or three words together, such as "more juice"

At age 3, most children can...

- Walk up stairs while holding the railing
- Stand momentarily on one foot
- Open doors
- Unbutton large buttons
- Verbalize toilet needs
- Stack objects of different sizes

A delay in any of these areas could be a sign of a developmental problem.

## Factors Which Contribute to a Variety in Rate of Development

- Sex of the person

- Gland function or dysfunction
- A lack of proper nutrition
- Genes
- Rate of intellectual development
- Health status (sickly)
- Exposure to fresh air or pollutants
- Birth order of child in family in relation to siblings
- Level of motivation or drive
- Presence or absence of parents' attitudes: encouragement, interest or not
- Environmental stimuli
- Drugs

## Stages of Normal Human Development

<u>Stage</u>	<u>Characteristics</u>
Newborn	Senses are developed. Infants are attracted to the human face and can follow a moving light. Uses rooting reflex to obtain nourishment.
Infant	Grasp reflex of hands and toes. Imitation begins: motor (banging, tongue, peek-a-boo) and vocal (da, da, da)
Toddler	Knows environment and can make simple changes to it, such as getting someone's attention for the purpose of play, knowing that things which disappear still exist. Learns labels for objects. Variety and repetition are keys to learning. Learns cause and effect relationship.
Young child	Communication skills improve. Learns best by doing. Learns abstract reasoning. Becomes more independent of caregivers. Likes to play with peers. changes in body proportions. (Varies by heredity) Girls' growth spurts are
Pre-pubescence	Secondary sex characteristics appear, but the reproductive organs are not yet fully developed. Marked by growth spurts and marked

between 8-12 years and gradually decline until 17 or 18. Boys begin between 10-15 years with peak growth between 14.5-15.5 years with gradual decline until 20 or 21. Feels more secure interacting with same sex friends.

**Pubescence** The first phase of adolescence when sexual maturation occurs. It climaxes when girls first menstruate and boys show the presence of live sperm in the urine.

**Adolescence** Boys' testes and penises grow, and nocturnal emissions occur. Pubic hair, underarm and facial hair begins to grow. Girls' reproductive organs grow and mature (breasts, uterus, ovaries, vagina, etc.) Pubic hair and widening of hips occur. Both sexes may experience acne, appetite may be finicky, may wish to be alone and are usually bored, clumsy, awkward, with heightened emotions, lost of self confidence and excessive modesty. Thinking shifts from concrete to abstract. Emotions are often intense, uncontrolled, and seem irrational. They are attempting to develop masculine or feminine social roles. Personalities and morals develop.  
Enjoys interacting with opposite sex.

**Adulthood** Male and female roles established. More mature interest in opposite sex. Instinct to have a family and settle down. Focus may be on marriage and raising children.

**Old age** Increased risk of bone fractures, loss of strength and muscle power. Osteoporosis or other types of ill health may interfere with ease of living. Stressors of life may impact health. Skin becomes dry and wrinkled. May have more time to develop interests and hobbies.

**People with Developmental Disabilities** – Motor experience may be limited because of physical, psychological, or sociological problems. Person may have been raised in overly-structured, restrictive environment. This may inhibit exploration and reduce the person's opportunity to develop more varied perceptions and associations. Interpretations of environment may be unusual because of lack of normal set of experiences. The person may exhibit characteristics of a certain stage, even though their chronological age may be older.

## Piaget's Developmental Ladder

Child psychologist Jean Piaget described the mechanism by which the mind processes new information. He said that a person understands whatever information fits into his established view of the world. When information does not fit, the person must reexamine and adjust his thinking to accommodate the new information. Piaget described four stages of cognitive development and relates them to a person's ability to understand and assimilate new information.

### Stage 1: Sensorimotor

The child is incapable of solving problems. If something is not seen, it has ceased to exist. Around 18 months the child realizes the object has fallen and will search for it. The child can form a plan to retrieve it, but success tends to be a trial and error process. For example, a 20-month-old may finally figure out how to open a door by turning the doorknob after many attempts, but may forget the next day and have to resolve the problem.

### Stage 2: Preoperational

By 2 years of age the child can use language to control the environment and help solve problems. The child can sing a song, tell what happened and can understand some

opposites. However, s/he cannot understand abstract concepts, such as death or honesty.

### Stage 3: Concrete Operations

A child ages 6-12 the child can see complex relationships, classify objects and put in order, solve simple arithmetic problems, and to read. S/he still has difficulty dealing with hypothetical situations.

### Stage 4: Formal Operations

This stage begins at about age 12 and continues throughout life. The person can project into the future and set up long range goals. They are more sensitive to the needs of others and can understand abstract concepts, isolate a problem, review it systematically and test possible solutions. They are no longer gullible and do not believe in fanciful stories.

## Human Senses

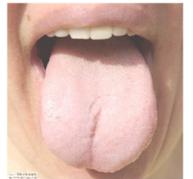
☐ Hearing - ears



☐ Seeing - eyes



☐ Tasting - tongue



☐ Touching - skin, fingers



☐ Smelling - nose



## Characteristics of Sexual Development

### Male Development

Increased body hair

Hair around genitals

Growth of beard

Growth of hair under arms

Lowering of voice

Nocturnal emissions (wet dreams)

Erections

Interest in opposite sex

Development of larger muscles  
broaden & broader shoulders

Need to wear sanitary napkins tamp or tampons

### Female Development

Increased body hair

Hair around genitals

Appearance of menses

Growth of hair under arms

Appearance of breasts

Interest in opposite sex

Ability to become pregnant

Acne

Mood swings

Abdominal cramps

## Sexuality Terms Worksheet

Directions: Draw a line from the word on the left to the correct description.

Penis	Small, erectile organ near the opening of the vagina.
Vagina	Male sex gland which produces sperm.
Testes	Canal in the female that receives the penis during intercourse. Also, the fetus passes through it at birth.
Genitals	Male sex organ, also used for urination.
Clitoris	External sex organs.
Intercourse	Sexual union of two people in which the penis is inserted into a body orifice of the other
Masturbation means	Stimulation of the genitals through manipulation or other than intercourse
Ejaculation	Expulsion of semen from the male body contains the testes
Scrotum	Pouch of skin that hangs behind the penis and .
Foreskin	Outer covering of skin at the tip of the penis.
Uterus	Opening where solid waste leaves the body.
Anus	Place in a woman's body where the fetus develops: the womb.