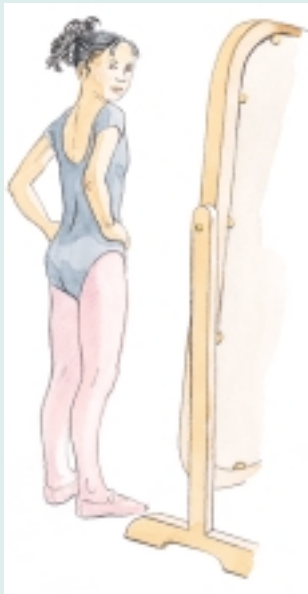


Pubertal Development in North American Boys and Girls

M I L E S T O N E S

Girls	Average Age Attained	Age Range	Boys	Average Age Attained	Age Range
Breasts begin to "bud."	10	(8–13)	Testes begin to enlarge.	11.5	(9.5–13.5)
Height spurt begins.	10	(8–13)	Pubic hair appears.	12	(10–15)
Pubic hair appears.	10.5	(8–14)	Penis begins to enlarge.	12	(10.5–14.5)
Peak of strength spurt.	11.6	(9.5–14)	Height spurt begins.	12.5	(10.5–16)
Peak of height spurt.	11.7	(10–13.5)	Spermarche (first ejaculation) occurs.	13	(12–16)
Menarche (first menstruation) occurs.	12.5	(10.5–15.5)	Peak of height spurt.	14	(12.5–15.5)
Adult stature reached; underarm hair appears.	13	(10–16)	Facial and body hair begin to grow.	14	(12.5–15.5)
Breast growth completed.	14	(10–16)	Voice begins to deepen.	14	(12.5–15.5)
Pubic hair growth completed.	14.5	(14–15)	Penis growth completed.	14.5	(12.5–16)
			Peak of strength spurt.	15.3	(13–17)
			Adult stature reached.	15.5	(13.5–17.5)
			Pubic hair growth completed.	15.5	(14–17)



Note: These milestones represent overall age trends. Individual differences exist in the precise age at which each milestone is attained.

Sources: Malina & Bouchard, 1991; Tanner, 1990.