

# **Stages of growth and development**

Objectives: •

\*To know the stages of growth and •  
development.

\*To know the factor that influencing growth •  
and development.

# prenatal development.

- Prenatal (fertilization - birth)
  - Embryo - (fertilization - 8 weeks of gestation)
    - Zygote, the point of conception, fertilization
    - Blastocyst the period between conception and embryonic stage
    - Embryo; the embryonic period starts at three weeks and continues until the end of the 8th week of pregnancy
  - Fetus (8 weeks of gestation - birth)

Stage	Age	Significant characteristics	Nursing implications
Neonate	Birth to 28 days	Behavior is reflexive	Assist parent to identify and met unmet needs
Infancy	1 month to 1 year	Physical growth is rapid	Control the infant's environment so that physical and psychological needs are met
Toddlerhood	1 to 3 years	Physical autonomy & psychosocial skills increase	Safety and risk-taking strategies must be balanced to permit growth
Preschool	3 to 6 years	New experiences & physical growth is slower	Provide opportunities for play and social activities
School age	6- 12	Behavioral ,physical , cognitive & social development increase , & communication skills improve	Recognize and support child's achievement
Adolescence	12 to 20 years	Self-concept changes with biological development physical growth are accelerated , stress increase (in facing conflict)	Assist them to develop coping behaviors
Young adulthood	20 to 40 years	A personal lifestyle develop , person establish relationships with other & commitment to something .	Accept adult's chosen lifestyle
Middle adulthood	40 to 65 years	Lifestyle changes due to other changes ( children leave home , occupational goals change	Assist client to anticipated changes in life
Older adulthood Young-old Middle-old Old-old	65-74 75-84 85 and over	Adaptation to retirement & changing physical abilities , chronic illness may develop. Adaptation to decline in speed of movement , reaction time , & increase dependence to other Increasing physical problem may develop	Assist client to keep physically and socially active. Assist client to cope with loss abilities Assist client with self-care as required

# Factors influencing growth and development

The human process of growth & development result from the interrelated effects of heredity & environment . •

(1)forces of nature •

(a)heredity : sex, race , hair& eye color , physical growth , stature , & to some extent psychological uniqueness •

(b)temperament : is the characteristic psychological mood with which is born . •

(2)external forces •

(a)family : protection , survival , security , emotional and social development , values , beliefs , interaction and communication. •

(b)peer group : provides new and different •  
learning environment .

(c)life experiences •

(d)health environment •

(e) prenatal health •

(f) nutrition •

(g)Rest , sleep and exercise •

(h)state of health •

(i)living environment •

Growth chart (Boys)									
AGE	Weight(kg)			Height(cm)			head circum.(cm)		
	3	50	97	3	50	97	3	50	97
Birth	2.9	3.5	4.2	48	50	53	33.5	35	36.5
3m	4.4	5.7	7.2	55	60	65	38	41	43
6m	6.2	7.8	9.8	62	66.5	71	41	44	46
9m	7.6	9.3	11.6	66.5	71	76	43	46	47
12m	8.4	10.3	12.8	70	75	80	44	47	49
18m	9.4	11.7	14.2	75	81	87	46	49	51
2yr	10.2	12.7	15.7	80	87	93	47	50	52
3yr	11.6	14.7	17.8	86	95	102	48	50	53
4yr	13	15	21	94	101	110			
5yr	14	19	23	100	108	117	49	51	54
6yr	16	21	27	105	114	124			
7yr	17	23	30	110	120	130			
8yr	19	25	34	115	126	137	50	52	55
9yr	21	27.5	39	120	132	143			
10yr	23	30	44	125	137	148			
11yr	25	34	50	129	142	154			
12yr	27	38	58	133	147	160	51	54	56
13yr	30	43	64	138	153	168			
14yr	33	49	71	144	160	176	53	56	58
15yr	39	55	76	152	170	182			
16yr	46	60	79	158	172	185			
17yr	49	62	80	162	174	187			
18yr	50	64	82	162	175	187			

Growth chart (Girls )									
AGE	Wt(kg)			Ht(cm)			head circumference(cm)		
	3	50	97	3	50	97	3	50	97
Birth	2.8	3.4	4	48	49	52	33.5	35	36
3m	4.2	5.2	7	55	58	62	37	40	43
6m	5.9	7.3	9.4	61	65	69	40	43	45
9m	7	8.7	10.9	65	70	74	42	44	47
12m	7.6	9.6	12	69	74	78	43	46	48
18m	8.8	10.9	13.6	75	80	85	45	47	50
2yr	9.6	12	14.9	79	85	91	46	48	51
3yr	11.2	14.1	17.4	86	93	100	47	49	52
4yr	13	16	20	92	100	109			
5yr	15	18	23	98	107	116	48	50	53
6yr	16	20	27	104	114	123			
7yr	18	23	30	109	120	130			
8yr	19	25	35	114	125	136	50	52	54
9yr	21	28	40	120	130	142			
10yr	23	31	48	125	136	148			
11yr	25	35	56	130	143	155			
12yr	28	40	64	135	149	164	51	53	56
13yr	32	46	70	142	156	168			
14yr	37	51	73	148	160	172	52	54	57
15yr	42	54	74	150	162	173			
16yr	45	56	75	151	162	174			
17yr	46	56	75						
18yr	46	57	75						



Question •

Q1. Enumerate the stage of growth and development? •

Q2. What are the factors that influence the growth and development? •

thanks•