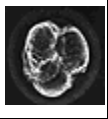















## Developmental Stages in Human Embryoes

Below is a table of the 23 Carnegie stages of development and their descriptive features.

Carnegie Stage	Pairs of Somites	Length (mm)	Age (days) <sup>1</sup>	Age (days) <sup>2</sup>	Features	
1				1	Fertilization	
2			1.5-3	2-3	From 2 to about 16 cells	
3			4	4-5	Free blastocyst	
4			5-6	5-6	Attaching blastocyst	
5		0.1-0.2	7-12	7-12	Implanted although previllous	
5a		0.1	7-8		Solid trophoblast	
5b		0.1	9		Trophoblastic lacunae	
5c		0.15-0.2	11-12		Lacunar vascular circle	
6		0.2	13	13-15	Chorionic villi; primitive streak may appear	
6a					Chorionic villi	
6b					Primitive streak	
7		0.4	16	15-17	Notochordal process	
8		1.0-1.5	18	17-19	Primitive pit, notochordal and neurenteric canals	
9		1.2-2.5	20	19-21	Somites first appear	

10		2-3.5	22	22-23	Neural folds begin to fuse, 2 pharyngeal bars, optic sulcus	
11		2.5-4.5	24	23-26	Rostral neuropore closes, optic vesicle	
12		3-5	26	26-30	Caudal neuropore closes, 3 pharyngeal bars, upper limb buds appearing	
13		4-6	28	28-32	Four limb buds, lens disc, otic vesicle	
14		5-7	32	31-35	Lens pit and optic cup, endolymphatic appendage distinct	
15		7-9	33	35-38	Lens vesicle, nasal pit, antitragus beginning, hand plate, trunk relatively wider, cerebral vesicles	
16		8-11	37	37-42	Nasal pit faces ventrally, retinal pigment visible in intact embryo, auricular hillocks beginning, foot plate	
17		11-14	41	42-44	Head relatively larger, trunk straighter, nasofrontal groove distinct, auricular hillocks distinct, finger rays	
18		13-17	44	44-48	Body more cuboidal, elbow region and toe rays appearing, cyclids beginning, tip of nose distinct, nipples appear, ossification may begin	
19		16-18	47.5	48-51	Trunk elongating and straightening	

20		18-22	50.5	51-53	Upper limbs longer and bent at elbows	
21		22-24	52	53-54	Fingers longer, hands approach each other, feet likewise	
22		23-28	54	54-56	Eyelids and external ear more developed	
23		27-31	56.5	56-60	Head more rounded, limbs longer and more developed	