

**Relevant growth tables –
internal organs and antropological measurements**

LENGTH AND WEIGHT OF THE BODY

EMBRYO AND FETUS

Age of pregnancy (in months)	Length in cm.	Weight in gms.
2	2.5 – 3	4
3	7 – 9	5 – 20
4	10 – 17	120
5	18 – 27	284
6	28 – 34	634
7	35 – 368	1218
8	39 – 41	1700 – 1900
9	42 – 44	2240 – 2500
10	45 – 47	3100

CHILDREN TILL AGE OF 1

Age	Length in cms.	Weight in gms.
Newborn	50	3200
15 days	50	3600
1 month	54	4000
2 months	58	5000
3 months	60	5700
4 months	62	6300
6 months	65	7300
8 months	68	8200
10 months	69	8900
12 months	72	10000

CHILDREN OVER 1 YEAR OF AGE

Age in years	Length in cms.		Weight in gms.	
	Boys	Girls	Boys	Girls
1	2	3	4	5
1	72	31	10,000	9,500
2	80	71	11,500	11,000
3	87	86	12,500	12,400
4	93	92	14,200	14,000
5	99	98	16,000	15,700
6	105	104	18,000	16,800
8	116	114	22,000	19,500
10	128	125	26,000	23,000
12	138	131	30,000	29,000
14	147	146	38,000	37,000
16	156	152	47,000	45,000

ADULTS

1	2	3	4	5
18	166.0	157	55	50
20	168.0	158	60	54
30	169.0	159	68	55
40	169.0	158	69	56
60	167.5	157	65	56
80	164.0	154	61	51

Determination of the fetus maturity
according to the diameter of ossification in the Reclard's nucleus

- Till the 37th week of intrauterine life - Absent
- In the 38th week of intrauterine life - Diameter 1 - 2mm
- Term newborn - Diameter 2 – 5 mm

DETERMINATION OF AGE
ACCORDING TO THE DEVELOPMENT OF TEETH

Primary teeth

Medial inferior incisors	4 th month – 7 th month
Superior incisors	8 th month – 10 th month
Lateral inferior incisors	12 th month – 14 th month
Canines	18 th month – 20 th month
premolars	29 th month – 34 th month

Secondary teeth

Primary molars	7 th year
Medial incisors	8 th year
Lateral incisors	9 th year
Anterior premolars	10 th year
Canines	11 th – 13 th year
Posterior premolars	11 th – 15 th year
2 nd molar	13 th – 16 th year
3 rd molar	18 th – 30 th year

CRANIAL DIMENSIONS

	Newborns	Adults	
		Men	Women
Longitudinal diameter	12 cm	20 cm	18 cm
Great transverse diameter	9 cm		
Lesser transverse diameter	8 cm		
Horizontal circumference	34 cm	65 cm	55 cm
Posterior transverse diameter		16 cm	14 cm

WEIGHT OF THE BRAIN

Age	Average weight in gms.	
Newborns	380	
1 year olds	910	
3 year olds	1080	
5 year olds	1250	
10 year olds	Boys – 1400	Girls – 1260
15 year olds	Boys – 1470	Girls – 1235
Adults	Men – 1375	Women – 1250

Ratio between weight of brain and entire body is 2:100

WEIGHT AND SIZES OF THE HEART AND LARGE BLOOD VESSELS

Age	Average weight of heart in gms.	
Newborns	24	
1 year olds	37	
3 year olds	62	
5 year olds	82	
10 year olds	128	
15 year olds	Boys – 230	Girls – 204
Adults 15 – 30years	Men – 270	Women – 250
Adults 30 – 50years	Men – 285	Women – 270
Adults 55 – 70years	Men – 310	Women – 275
After 70 years	Men – 320	Women - 285

Ratio heart/entire body weight = 1:169 in men and 1:162 in women

SIZES OF ADULT HEART (in cm)

	Men	Women
Length (from base of aorta to	8.5 – 9.0	8.0 – 8.5
Diameter (base of ventricles)	9.2 – 10.5	8.5 – 9.2
Thickness (base of ventricles)	3.5 – 4.5	3.2 – 4.0
Circumference	25.8	25.8

THICKNESS OF VENTRICULAR WALLS (in cm)

- Right ventricle: 0.2 – 0.3
- Left ventricle: 0.7 – 1.2
- Interventricular septum: 1 – 1.2

SIZE OF GREAT VESSELS OPEN (in cm)

- Pulmonary artery: 7.5 – 8
- Ascending aorta: 7
- Thoracic aorta: 4.5 – 6
- Abdominal aorta: 3.5 – 4.5

WEIGHT AND DIMENSIONS OF LUNGS

Age	Total average weight of both lungs (in gms)	
Newborns	54	
1 year olds	150	
3 year olds	260	
5 year olds	290	
10 year olds	500	
15 year olds	690	
Adults	Right lung	360 – 570
	Left lung	325 – 480

SIZES OF LUNGS (in cms)

- Length: 26
- Breadth: 16 - 17
- Thickness: 9 – 10

SIZES OF THE ESOPHAGOUS

- Length: 25cm
- Distance between anterior teeth to the cricoid's cartilage: 15cm
- width of open esophagus: 4 – 5 cm
- Thickness of walls: 0.3 – 0.4 cm

SIZES AND CAPACITY OF THE STOMACH

- Distance between cardia and pylorus : 20 cm
- Average capacity: men – 2.5 L
 women – 1.8 L

SIZES OF THE INTESTINE

- Length of the duodenum: 30 cm
- Length of small intestine: 5.5 – 6.4 m
- Length of large intestine: 1.5 – 1.7 m
- Length of appendix: 4.8 cm

WEIGHT AND SIZES OF THE LIVER IN CHILDREN

Age	Average weight (in gm)
Newborns	150
1 year olds	300
3 year olds	460
5 year olds	560
10 year olds	830
15 year olds	1280
Adults	1600

SIZES OF THE LIVER IN ADULTS:

- Length: 28 – 34 cm
- Breadth: 23 – 27 cm
- Height: 6 – 8 cm

SIZES OF THE GALL BLADDER:

- Length: 3 – 17 cm
- Diameter: 3 – 3.5 cm
- Thickness of walls: 1 – 2 mm

WEIGHT AND SIZE OF THE PANCREAS IN ADULTS:

- Weight: 80 – 100 g
- Sizes: - length: 23 cm
 - width: 3.5 cm
 - thickness: 2 cm

WEIGHT AND SIZES OF THE URO-GENITAL ORGANS

Weight of the kidneys:

<u>Age</u>	<u>Average weight of both kidneys (in g)</u>	
Newborns	24	
1 year olds	65	
3 year olds	100	
5 year olds	108	
10 year olds	165	
15 year olds	Boys – 220	Girls – 240
Adults	Men – 320	Women – 293

DIMENSIONS OF KIDNEYS IN ADULTS

- Length: 11 – 12 cm
- Breadth: 5 – 6 cm
- Thickness: 3 – 4 cm
- Thickness of cortical layer: 0.5 – 0.8 cm

Note: In adults, the left kidney is 5 – 7 g heavier than the right.

SIZES OF THE URETERS

- Length: 27- 30 cm
- Circumference: 1 cm
- Length in men: 15 – 17 cm
- Length in women: 3,5 cm

WEIGHT OF PROSTATE

Age	Weight in gms
20 -30 years	15
31 – 40 years	16
41 – 50 years	17
51 – 60 years	18 (or 20)
61 – 70 years	16 (or 23)
71 – 80 years	15 (or 40)

SIZES OF PROSTATE:

- Transversal diameter: 3.2 – 4.7 cm
- Thickness (sagittal diameter): 1.4 – 2.3 cm
- Length (from peak to base): 2.3 – 3.4 cm

SIZES OF SEMINAL BLADDER

- Length: 4.1 – 4.5 cm
- Width: 1.6 – 1.8 cm
- Thickness: 0.9 cm

WEIGHT AND SIZES OF TESTICLES

Age	Weight of both testicles (in gms)
Newborns	0.8
15 year old boys	24
Adults	36 – 50
Over 60 year olds	25 - 35

SIZES OF FEMALE GENITAL ORGANS

	Weight (gms)	<u>Length (cms)</u>	<u>Width (cms)</u>	<u>Thickness (cms)</u>
NULLIPAROUS	33 – 41	7.8 – 8.1	3.4 – 4.5	1.8 – 2.7
MULTIPAROUS	102 – 117	8.7 – 9.4	5.4 – 6	3.2 – 3.6

LENGTH OF UTERINE CAVITIES:

- In nulliparous: 5.2 cm
- In multiparous: 5.7 cm
- In climacteric period, 0.4 – 0.5 cm more
- Thickness of mucosa:
 - uterine body: 0.5 – 1 mm
 - in **col**: 1 mm
- Thickness of entire wall:
 - uterine body: 1 – 1.5 cm
 - colului: 0.7 – 0.8 cm

In multiparous women, the thickness is 0.2 – 0.5 cm more.

FALLOPIAN TUBES:

- Length of each: 11- 14 cm

WEIGHT OF OVARIES:

Age	Weight of each ovary (in g)
Newborns	0.5 – 0.6
10 year old girls	2.0 – 3.0
During sexual maturity	4.5 – 5.0
Mature woman	6.0 – 8.0
Climacteric period	1.5 – 2.5

SIZES OF OVARIES

	Length in cms	Width in cms	Thickness in cms
In young women	4.1- 5.2	2.0 – 2.9	1.0 – 1.1
In multiparous	2.7 – 1.0	1.4 – 1.6	0.7 – 0.9

WEIGHT AND DIMENSIONS OF THE PLACENTA

Month of pregnancy	Weight in g	Diameter in cm	Thickness in cm
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3 rd month	36	5.0 – 7.0	1.0
4 th month	80	7.5 – 8.5	1.0 – 1.2
5 th month	178	11.8	1.2 – 1.8
Term	500	12 – 20	3.0
Length of umbilical cord: 50 cm			
Quantity of amniotic fluid: 500 – 700 cm ³			

WEIGHT AND DIMENSIONS OF THE SPLEEN

In adults:

- Length: 10 – 12 cm
- Breadth: 7 – 8 cm
- Thickness: 3 – 4 cm

In children:

- Newborns: 11 g
- 1 year olds: 20 g
- 3 year olds: 43 g
- 5 year olds: 52 g
- 10 year olds: 87 g
- 15 year olds: - boys: 115 g
- girls: 120 g
- Adults: - men: 150 g
- women: 180 g

WEIGHT AND SIZES OF THYROID:

- Newborns: 5 g
- 1 year olds: 3 g
- 3 year olds: 8 g
- 5 year olds: 8 g
- 10 year olds: 17 g
- 15 year olds: 23 g
- Adults: 25 – 30 g

WEIGHT AND SIZES OF THE THYMUS

- Newborns: 13 g

- 9 months old: 20 g
- Children: 1 – 5 year olds: 23 g
6 – 10 year olds: 24 g
11 – 15 year olds: 26 g
- Adults: 16 – 20 years: 20 g
21 – 25 years: 18 g
26 – 35 years: 16 g
36 – 45 years: 14 g
46 – 55 years: 11 g
56 – 65 years: 10 g
66 – 75 years: 6 g

WEIGHT AND SIZES OF THE HYPOPHYSIS

- Weight: 0.5 – 0.6 g
- Sizes:
 - length: 0.8 cm
 - breadth: 1.2 cm
 - thickness: 0.6 cm

WEIGHT AND SIZES OF THE SUPRARENAL GLANDS

Age	Weight of both suprarenals
Newborns	6 g
1 year olds	2 g
3 year olds	3 g
15 year olds: boys	7 g
girls	5 g
Adults	8 – 12 g

Note: in women during pregnancy, the weight of both suprarenal capsules increases up to 17 – 19 g.

SIZES OF EACH SUPRARENALS IN ADULTS

- Length: 4.0 – 5.0 cm
- Breadth: 2.5 – 3.5 cm
- Thickness: 0.5 cm