PART 7
Clinical Reference Tables

Protocols for High-Risk Pregnancies: An Evidence-Based Approach, Fifth Edition
Edited by John T. Queenan, John C. Hobbins and Catherine Y. Spong
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APPENDIX A

Commonly Used Ultrasound Measurements

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Table A-1 Predicted menstrual age (MA) in weeks from crown–rump length (CRL) measurements (cm)*

CRL	MA	CRL	MA	CRL	MA	CRL	MA	CRL	MA	CRL	MA
0.2	5.7	2.2	8.9	4.2	11.1	6.2	12.6	8.2	14.2	10.2	16.1
0.3	5.9	2.3	9.0	4.3	11.2	6.3	12.7	8.3	14.2	10.3	16.2
0.4	6.1	2.4	9.1	4.4	11.2	6.4	12.8	8.4	14.3	10.4	16.3
0.5	6.2	2.5	9.2	4.5	11.3	6.5	12.8	8.5	14.4	10.5	16.4
0.6	6.4	2.6	9.4	4.6	11.4	6.6	12.9	8.6	14.5	10.6	16.5
0.7	6.6	2.7	9.5	4.7	11.5	6.7	13.0	8.7	14.6	10.7	16.6
0.8	6.7	2.8	9.6	4.8	11.6	6.8	13.1	8.8	14.7	10.8	16.7
0.9	6.9	2.9	9.7	4.9	11.7	6.9	13.1	8.9	14.8	10.9	16.8
1.0	7.2	3.0	9.9	5.0	11.7	7.0	13.2	9.0	14.9	11.0	16.9
1.1	7.2	3.1	10.0	5.1	11.8	7.1	13.3	9.1	15.0	11.1	17.0
1.2	7.4	3.2	10.1	5.2	11.9	7.2	13.4	9.2	15.1	11.2	17.1
1.3	7.5	3.3	10.2	5.3	12.0	7.3	13.4	9.3	15.2	11.3	17.2
1.4	7.7	3.4	10.3	5.4	12.0	7.4	13.5	9.4	15.3	11.4	17.3
1.5	7.9	3.5	10.4	5.5	12.1	7.5	13.6	9.5	15.3	11.5	17.4
1.6	8.0	3.6	10.5	5.6	12.2	7.6	13.7	9.6	15.4	11.6	17.5
1.7	8.1	3.7	10.6	5.7	12.3	7.7	13.8	9.7	15.5	11.7	17.6
1.8	8.3	3.8	10.7	5.8	12.3	7.8	13.8	9.8	15.6	11.8	17.7
1.9	8.4	3.9	10.8	5.9	12.4	7.9	13.9	9.9	15.7	11.9	17.8
2.0	8.6	4.0	10.9	6.0	12.5	8.0	14.0	10.0	15.9	12.0	17.9
2.1	8.7	4.1	11.0	6.1	12.6	8.1	14.1	10.1	16.0	12.1	18.0

*The 95% confidence interval is ±8% of the predicted age.

Source: Hadlock FP, Shah YP, Kanon DJ, Lindsey JV. Fetal crown–rump length: reevaluation of relation to menstrual age (5–18 weeks) with high-resolution real-time US. *Radiology* 1992;182:501–5.

Table A-2 Gestational sac measurement

Mean predicted gestational sac (cm)	Mean predicted gestational age (wk)	Gestational sac (cm)	Gestational age (wk)
1.0	5.0	3.6	8.8
1.1	5.2	3.7	8.9
1.2	5.3	3.8	9.0
1.3	5.5	3.9	9.2
1.4	5.6	4.0	9.3
1.5	5.8	4.1	9.5
1.6	5.9	4.2	9.6
1.7	6.0	4.3	9.7
1.8	6.2	4.4	9.9
1.9	6.3	4.5	10.0
2.0	6.5	4.6	10.2
2.1	6.6	4.7	10.3
2.2	6.8	4.8	10.5
2.3	6.9	4.9	10.6
2.4	7.0	5.0	10.7
2.5	7.2	5.1	10.9
2.6	7.3	5.2	11.0
2.7	7.5	5.3	11.2
2.8	7.6	5.4	11.3
2.9	7.8	5.5	11.5
3.0	7.9	5.6	11.6
3.1	8.0	5.7	11.7
3.2	8.2	5.8	11.9
3.3	8.3	5.9	12.0
3.4	8.5	6.0	12.2
3.5	8.6	–	–

Source: Hellman LM, Kobayashi M, Fillisti L, *et al.* Growth and development of the human fetus prior to the twentieth week of gestation. *Am J Obstet Gynecol* 1969;103:789.

Table A-3 Sac size versus hCG levels for normal pregnancies ($n = 56$)

Mean sac diameter (mm)	HCG level (mIU/mL) Predicted*	95% Confidence limits Lower	Upper
5	1,932	1,026	3,636
6	2,165	1,226	4,256
7	2,704	1,465	4,990
8	3,199	1,749	5,852
9	3,785	2,085	6,870
10	4,478	2,483	8,075
11	5,297	2,952	9,508
12	6,267	3,502	11,218
13	7,415	4,145	13,266
14	8,773	4,894	15,726
15	10,379	5,766	18,682
16	12,270	6,776	22,235
17	14,528	7,964	26,501
18	17,188	9,343	31,621
19	20,337	10,951	37,761
20	24,060	12,820	45,130
21	28,464	15,020	53,970
22	33,675	17,560	64,570
23	39,843	20,573	77,164

*log (HCG) = 2.92 + 0.073 (MSD), $R^2 = 0.93$, $P < 0.001$.
Source: Nyberg, DA, Filly, RA, Duane Filho, DL, *et al*. Abnormal pregnancy: early diagnosis by US and serum chorionic gonadotropin levels. *Radiology* 1986;158:393–6.

Table A-4 Reference values for length of nasal bone

Gestational age (wk)	Length of nasal bone (mm) –2 SD	Mean	+2 SD
14	3.3	4.2	5.0
16	3.1	5.2	7.3
18	5.0	6.3	7.6
20	5.7	7.6	9.5
22	6.0	8.2	10.4
24	6.8	9.4	12.0
26	7.2	9.7	12.3
28	7.8	10.7	13.6
30	8.3	11.3	14.4
32	8.0	11.6	15.2
34	7.5	12.3	17.0

Reproduced with permission from Guis F, Ville V, Vincent V, Doumerc S, Pons JC, *et al*. Ultrasound evaluation of the length of the fetal nasal bones throughout gestation. *Ultrasound Obstet Gynecol* 1995;5:304–7.

Table A-5 Biparietal diameter (BPD) and gestational age

BPD (cm)	Menstrual age (wk)	BPD (cm)	Menstrual age (wk)	BPD (cm)	Menstrual age (wk)	BPD (cm)	Menstrual age (wk)
2.0	12.2	4.0	18.0	6.0	24.6	8.0	32.5
2.1	12.5	4.1	18.3	6.1	25.0	8.1	32.9
2.2	12.8	4.2	18.6	6.2	25.3	8.2	33.3
2.3	13.1	4.3	18.9	6.3	25.7	8.3	33.8
2.4	13.3	4.4	19.2	6.4	26.1	8.4	34.2
2.5	13.6	4.5	19.5	6.5	26.4	8.5	34.7
2.6	13.9	4.6	19.9	6.6	26.8	8.6	35.1
2.7	14.2	4.7	20.2	6.7	27.2	8.7	35.6
2.8	12.5	4.8	20.5	6.8	27.6	8.8	36.1
2.9	14.7	4.9	20.8	6.9	28.0	8.9	36.5
3.0	15.0	5.0	21.2	7.0	28.3	9.0	37.0
3.1	15.3	5.1	21.5	7.1	28.7	9.1	37.5
3.2	15.6	5.2	21.8	7.2	29.1	9.2	38.0
3.3	15.9	5.3	22.2	7.3	29.5	9.3	38.5
3.4	16.2	5.4	22.5	7.4	29.9	9.4	38.9
3.5	16.5	5.5	22.8	7.5	30.4	9.5	39.4
3.6	16.8	5.6	23.2	7.6	30.8	9.6	39.9
3.7	17.1	5.7	23.5	7.7	31.2	9.7	40.5
3.8	17.4	5.8	23.9	7.8	21.6	9.8	41.0
3.9	17.7	5.9	24.2	7.9	32.0	9.9	41.5
–	–	–	–	–	–	10.0	42.0

Reproduced by permission from FP Hadlock, RL Deter, RB Harrist. Fetal biparietal diameter. *J Ultrasound Med* 1982;1:97.

Table A-6 Percentile values head circumference

Menstrual age (weeks)	Head circumference (cm) percentiles 3rd	10th	50th	90th	97th
14.0	8.8	9.1	9.7	10.3	10.6
15.0	10.0	10.4	11.0	11.6	12.0
16.0	11.3	11.7	12.4	13.1	13.5
17.0	12.6	13.0	13.8	14.6	15.0
18.0	13.7	14.2	15.1	16.0	16.5
19.0	14.9	15.5	16.4	17.4	17.9
20.0	16.1	16.7	17.7	18.7	19.3
21.0	17.2	17.8	18.9	20.0	20.6
22.0	18.3	18.9	20.1	21.3	21.9
23.0	19.4	20.1	21.3	22.5	23.2
24.0	20.4	21.1	22.4	23.7	24.3
25.0	21.4	22.2	23.5	24.9	25.6
26.0	22.4	23.2	24.6	26.0	26.8
27.0	23.3	24.1	25.6	27.0	27.9
28.0	24.2	25.1	26.6	28.1	29.0
29.0	25.0	25.9	27.5	29.1	30.0
30.0	25.8	26.8	28.4	30.0	31.0
31.0	26.7	27.6	29.3	31.0	31.9
32.0	27.4	28.4	30.1	31.8	32.8
33.0	28.0	29.0	30.8	32.6	33.6
34.0	28.7	29.7	31.5	33.3	34.3
35.0	29.3	30.4	32.2	34.1	35.1
36.0	29.9	30.9	32.8	34.7	35.8
37.0	30.3	31.4	33.3	35.2	36.3
38.0	30.8	31.9	34.2	36.2	36.8
39.0	31.1	32.2	34.2	36.2	37.3
40.0	31.5	32.6	34.6	36.6	37.7

Adapted from Hadlock FP, Deter RL, Harrist RB, Park SK. Estimating fetal age: computer-assisted analysis of multiple fetal growth parameters. *Radiology* 1984;152:497–501.

Table A-7 Reference values for abdominal circumference

Menstrual age (wk)	Abdominal circumference (cm) percentiles				
	3rd	10th	50th	90th	97th
14.0	6.4	6.7	7.3	7.9	8.3
15.0	7.5	7.9	8.6	9.3	9.7
16.0	8.6	9.1	9.9	10.7	11.2
17.0	9.2	10.3	11.2	12.1	12.7
18.0	10.9	11.5	12.5	13.5	14.1
19.0	11.9	12.6	13.7	14.8	15.5
20.0	13.1	13.8	15.0	16.3	17.0
21.0	14.1	14.9	16.2	17.6	18.3
22.0	15.1	16.0	17.4	18.8	19.7
23.0	16.1	17.0	18.5	20.0	20.9
24.0	17.1	18.1	19.7	21.3	22.3
25.0	18.1	19.1	20.8	22.5	23.5
26.0	19.1	20.1	21.9	23.7	24.8
27.0	20.0	21.1	23.0	24.9	26.0
28.0	20.9	22.0	24.0	26.0	27.1
29.0	21.8	23.0	25.1	27.2	28.4
30.0	22.7	23.9	26.1	28.3	29.5
31.0	23.6	24.9	27.1	29.4	30.6
32.0	24.5	25.8	28.1	30.4	31.8
33.0	25.3	26.7	29.1	31.5	32.9
34.0	26.1	27.5	30.0	32.5	33.9
35.0	26.9	28.3	30.9	33.5	34.9
36.0	27.7	29.2	31.8	34.4	35.9
37.0	28.5	30.0	32.7	35.4	37.0
38.0	29.2	30.8	33.6	36.4	38.0
39.0	29.9	31.6	34.4	37.3	38.9
40.0	30.7	32.4	35.3	38.2	39.9

Adapted from Hadlock FP, Deter RL, Harrist RB, Park SK. Estimating fetal age: computer-assisted analysis of multiple fetal growth parameters. *Radiology* 1984;152:497–501.

Table A-8 Reference values for femur length

Menstrual age (wk)	Femur length (cm) percentiles				
	3rd	10th	50th	90th	97th
14.0	1.2	1.3	1.4	1.5	1.6
15.0	1.5	1.6	1.7	1.9	1.9
16.0	1.7	1.8	2.0	2.2	2.3
17.0	2.1	2.2	2.4	2.6	2.7
18.0	2.3	2.5	2.7	2.9	3.1
19.0	2.6	2.7	3.0	3.3	3.4
20.0	2.8	3.0	3.3	3.6	3.8
21.0	3.0	3.2	3.5	3.8	4.0
22.0	3.3	3.5	3.8	4.1	4.3
23.0	3.5	3.7	4.1	4.5	4.7
24.0	3.8	4.0	4.4	4.8	5.0
25.0	4.0	4.2	4.6	5.0	5.2
26.0	4.2	4.5	4.9	5.3	5.6
27.0	4.4	4.6	5.1	5.6	5.8
28.0	4.6	4.9	5.4	5.9	6.2
29.0	4.8	5.1	5.6	6.1	6.4
30.0	5.0	5.3	5.8	6.3	6.6
31.0	5.2	5.5	6.0	6.5	6.8
32.0	5.3	5.6	6.2	6.8	7.1
33.0	5.5	5.8	6.4	7.0	7.3
34.0	5.7	6.0	6.6	7.2	7.5
35.0	5.9	6.2	6.8	7.4	7.8
36.0	6.0	6.4	7.0	7.6	8.0
37.0	6.2	6.6	7.2	7.9	8.2
38.0	6.4	6.7	7.4	8.1	8.4
39.0	6.5	6.8	7.5	8.2	8.6
40.0	6.6	7.0	7.7	8.4	8.8

Adapted from Hadlock FP, Deter RL, Harrist RB, Park SK. Estimating fetal age: computer-assisted analysis of multiple fetal growth parameters. *Radiology* 1984;152:497–501.

Table A-9 Length of fetal long bones (mm)

Week	Humerus percentile			Ulna percentile			Radius percentile			Femur percentile			Tibia percentile			Fibula percentile		
no.	5	50	95	5	50	95	5	50	95	5	50	95	5	50	95	5	50	95
11	–	6	–	–	5	–	–	5	–	–	6	–	–	4	–	–	2	–
12	3	9	10	–	8	–	–	7	–	–	9	–	–	7	–	–	5	–
13	5	13	20	3	11	18	–	10	–	6	12	19	4	10	17	–	8	–
14	5	16	20	4	13	17	8	13	12	5	15	19	2	13	19	6	11	10
15	11	18	26	10	16	22	12	15	19	11	19	26	5	16	27	10	14	18
16	12	21	25	8	19	24	9	18	21	13	22	24	7	19	25	6	17	22
17	19	24	29	11	21	32	11	20	29	20	25	29	15	22	29	7	19	31
18	18	27	30	13	24	30	14	22	26	19	28	31	14	24	29	10	22	28
19	22	29	36	20	26	32	20	24	29	23	31	38	19	27	35	18	24	30
20	23	32	36	21	29	32	21	27	28	22	33	39	19	29	35	18	27	30
21	28	34	40	25	31	36	25	29	32	27	36	45	24	32	39	24	29	34
22	28	36	40	24	33	37	24	31	34	29	39	44	25	34	39	21	31	37
23	32	38	45	27	35	43	26	32	39	35	41	48	30	36	43	23	33	44
24	31	41	46	29	37	41	27	34	38	34	44	49	28	39	45	26	35	41
25	35	43	51	34	39	44	31	36	40	38	46	54	31	41	50	33	37	42
26	36	45	49	34	41	44	30	37	41	39	49	53	33	43	49	32	39	43

(*Continued*)

Table A-9 (Continued)

Week	Humerus percentile			Ulna percentile			Radius percentile			Femur percentile			Tibia percentile			Fibula percentile		
no	5	50	95	5	50	95	5	50	95	5	50	95	5	50	95	5	50	95
27	42	46	51	37	43	48	33	39	45	45	51	57	39	45	51	35	41	47
28	41	48	52	37	44	48	33	40	45	45	53	57	38	47	52	36	43	47
29	44	50	56	40	46	51	36	42	47	49	56	62	40	49	57	40	45	50
30	44	52	56	38	47	54	34	43	49	49	58	62	41	51	56	38	47	52
31	47	53	59	39	49	59	34	44	53	53	60	67	46	52	58	40	48	57
32	47	55	59	40	50	58	37	45	51	53	62	67	46	54	59	40	50	56
33	50	56	62	43	52	60	41	46	51	56	64	71	49	56	62	43	51	59
34	50	57	62	44	53	59	39	47	53	57	65	70	47	57	64	46	52	56
35	52	58	65	47	54	61	38	48	57	61	67	73	48	59	69	51	54	57
36	53	60	63	47	55	61	41	48	54	61	69	74	49	60	68	51	55	56
37	57	61	64	49	56	62	45	49	53	64	71	77	52	61	71	55	56	58
38	55	61	66	48	57	63	45	49	53	62	72	79	54	62	69	54	57	59
39	56	62	69	49	57	66	46	50	54	64	74	83	58	64	69	55	58	62
40	56	63	69	50	58	65	46	50	54	66	75	81	58	65	69	54	59	62

Source: Jeanty P. Fetal Limb biometry (letter). *Radiology* 1983;147:602.

Table A-10 Fetal weight percentiles by gestational age

Gestational age (wk)	Fetal weight percentiles (g)				
	3rd	10th	50th	90th	97th
10	26	29	35	41	44
11	34	37	45	53	56
12	43	48	58	68	73
13	54	61	73	85	92
14	69	77	93	109	117
15	87	97	117	137	147
16	109	121	146	171	183
17	135	150	181	212	227
18	166	185	223	261	280
19	204	227	273	319	342
20	247	275	331	387	415
21	298	331	399	467	500
22	357	397	478	559	599
23	424	472	568	664	712
24	500	556	670	784	840
25	586	652	785	918	984
26	681	758	913	1,068	1,145
27	787	876	1,055	1,234	1,323
28	903	1,005	1,210	1,415	1,517
29	1,029	1,145	1,379	1,613	1,729
30	1,163	1,294	1,559	1,824	1,955
31	1,306	1,454	1,751	2,048	2,196
32	1,457	1,621	1,953	2,285	2,449
33	1,613	1,795	2,162	2,529	2,711
34	1,773	1,973	2,377	2,781	2,981
35	1,936	2,154	2,595	3,036	3,254
36	2,098	2,335	2,813	3,291	3,528
37	2,259	2,514	3,028	3,542	3,797
38	2,414	2,687	3,236	3,785	4,058
39	2,563	2,852	3,435	4,018	4,307
40	2,700	3,004	3,619	4,234	4,538
41	2.825	3,144	3,787	4,430	4,749
42	2.935	3,266	3,934	4,602	4,933

Ln. natural log; MA, menstrual age; wt, weight.

Note: Ln (wt) = 0.578 + 0.332 MA − 0.00354 × MA2; standard deviation = 12.7% of predicted weight.

Reproduced with permission from Hadlock FP, Harrist RB. Marinez-Poyer J. In utero analysis of fetal growth: a sonographic weight standard. *Radiology* 1991;181:129–33 (extrapolated to 42 weeks from 40 weeks).

Table A-11 Estimated fetal weights

Biparietal diameters	Abdominal circumferences																									
	15.5	16.0	16.5	17.0	17.5	18.0	18.5	19.0	19.5	20.0	20.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0	24.5	25.0	25.5	26.0	26.5	27.0	27.5	28.0
3.1	224	234	244	255	267	279	291	304	318	332	346	362	378	395	412	431	450	470	491	513	536	559	584	610	638	666
3.2	231	241	251	263	274	286	299	312	326	340	355	371	388	405	423	441	461	481	502	525	548	572	597	624	651	680
3.3	237	248	259	270	282	294	307	321	335	349	365	381	397	415	433	452	472	493	514	537	560	585	611	638	666	695
3.4	244	255	266	278	290	302	316	329	344	359	374	391	408	425	444	463	483	504	526	549	573	598	624	652	680	710
3.5	251	262	274	285	298	311	324	338	353	368	384	401	418	436	455	475	495	517	539	562	587	612	638	666	695	725
3.6	259	270	281	294	306	319	333	347	362	378	394	411	429	447	466	486	507	529	552	575	600	626	653	681	710	740
3.7	266	278	290	302	315	328	342	357	372	388	404	422	440	458	478	498	519	542	565	589	614	640	667	696	725	756
3.8	274	286	298	310	324	337	352	366	382	398	415	432	451	470	490	510	532	554	578	602	628	654	682	711	741	772
3.9	282	294	306	319	333	347	361	376	392	409	426	444	462	482	502	523	545	568	592	616	642	669	697	727	757	789
4.0	290	303	315	328	342	356	371	386	403	419	437	455	474	494	514	536	558	581	606	631	657	684	713	743	773	806
4.1	299	311	324	338	352	366	381	397	413	430	448	467	486	506	527	549	572	595	620	645	672	700	729	759	790	828
4.2	308	320	333	347	361	376	392	408	424	442	460	479	498	519	540	562	585	609	634	660	688	716	743	776	807	841
4.3	317	330	343	357	371	387	402	419	436	453	472	491	511	532	554	576	600	624	649	676	703	932	762	793	825	859
4.4	326	339	353	367	382	397	413	430	447	465	484	504	524	545	567	590	614	639	665	692	719	749	779	810	843	877
4.5	335	349	363	377	393	408	425	442	459	478	497	517	538	559	581	605	629	654	680	708	736	765	796	828	861	896
4.6	345	359	373	388	404	420	436	454	472	490	510	530	551	573	596	620	644	670	696	724	753	783	814	846	880	915
4.7	355	369	384	399	415	431	448	466	484	503	523	544	565	588	611	635	660	686	713	741	770	801	832	865	899	934
4.8	366	380	395	410	426	443	460	478	497	517	537	558	580	602	626	650	676	702	730	758	788	819	851	884	919	954
4.9	376	391	406	422	438	455	473	491	510	530	551	572	594	617	641	666	692	719	747	776	806	837	870	903	938	975
5.0	387	402	418	434	451	468	486	505	524	544	565	587	610	633	657	683	709	736	765	794	824	856	889	923	959	996
5.1	399	414	430	446	463	481	499	518	538	559	580	602	625	649	674	699	726	754	783	812	843	876	909	944	980	1,017
5.2	410	426	442	459	476	494	513	532	552	573	595	618	641	665	690	717	744	772	801	831	863	895	929	964	1,001	1,039
5.3	422	438	455	472	489	508	527	547	567	589	611	634	657	682	708	734	762	790	820	851	883	916	950	986	1,023	1,061
5.4	435	451	468	485	503	522	541	561	582	604	627	650	674	699	725	752	780	809	839	870	903	936	971	1,007	1,045	1,084
5.5	447	464	481	499	517	536	556	577	598	620	643	667	691	717	743	771	799	828	859	891	924	958	993	1,030	1,068	1,107

5.6	461	477	495	513	532	551	571	592	614	636	660	684	709	735	762	789	818	848	879	911	945	979	1,015	1,052	1,091	1,131
5.7	474	491	509	527	547	566	587	608	630	653	677	701	727	753	780	809	838	869	900	933	966	1,001	1,038	1,075	1,114	1,155
5.8	488	505	524	542	562	582	603	625	647	670	695	719	745	772	800	829	858	889	921	954	989	1,024	1,061	1,099	1,139	1,180
5.9	502	520	539	558	578	598	619	642	664	688	713	738	764	792	820	849	879	911	943	977	1,011	1,047	1,085	1,123	1,163	1,205
6.0	517	535	554	573	594	615	636	659	682	706	731	757	784	811	840	870	900	932	965	999	1,035	1,071	1,109	1,148	1,189	1,231
6.1	532	550	570	590	610	632	654	677	700	725	750	777	804	832	861	891	922	955	988	1,023	1,058	1,095	1,134	1,173	1,214	1,257
6.2	547	566	586	606	627	649	672	695	719	744	770	797	824	853	882	913	945	977	1,011	1,046	1,083	1,120	1,159	1,199	1,241	1,284
6.3	563	583	603	624	645	667	690	714	738	764	790	817	845	874	904	935	967	1,001	1,035	1,071	1,107	1,145	1,185	1,226	1,268	1,311
6.4	580	600	620	641	663	686	709	733	758	784	811	838	867	896	927	958	991	1,025	1,059	1,096	1,133	1,171	1,211	1,253	1,295	1,339
6.5	597	617	638	659	682	705	728	753	778	805	832	860	889	919	950	982	1,015	1,049	1,084	1,121	1,159	1,198	1,238	1,280	1,323	1,368

Biparietal diameters	Abdominal circumferences																									
	28.5	29.0	29.5	30.0	30.5	31.0	31.5	32.0	32.5	33.0	33.5	34.0	34.5	35.0	35.5	36.0	36.5	37.0	37.5	38.0	38.5	39.0	39.5	40.0
3.1	696	726	759	793	828	865	903	943	985	1,029	1,075	1,123	1,173	1,225	1,279	1,336	1,396	1,458	1,523	1,591	1,661	1,735	1,812	1,893
3.2	710	742	774	809	844	882	921	961	1,004	1,048	1,094	1,143	1,193	1,246	1,301	1,358	1,418	1,481	1,546	1,615	1,686	1,761	1,838	1,920
3.3	725	757	790	825	861	899	938	979	1,022	1,067	1,114	1,163	1,214	1,267	1,323	1,381	1,441	1,504	1,570	1,639	1,711	1,786	1,865	1,946
3.4	740	773	806	841	878	916	956	998	1,041	1,087	1,134	1,183	1,235	1,289	1,345	1,403	1,464	1,528	1,595	1,664	1,737	1,812	1,891	1,973
3.5	756	789	823	858	896	934	975	1,017	1,061	1,107	1,154	1,204	1,256	1,311	1,367	1,426	1,488	1,552	1,619	1,689	1,762	1,839	1,918	2,001
3.6	772	805	840	876	913	953	993	1,036	1,080	1,127	1,175	1,226	1,278	1,333	1,390	1,450	1,512	1,577	1,645	1,715	1,789	1,865	1,945	2,029
3.7	788	822	857	893	931	971	1,012	1,056	1,101	1,147	1,196	1,247	1,300	1,356	1,413	1,474	1,536	1,602	1,670	1,741	1,815	1,893	1,973	2,057
3.8	805	839	874	911	950	990	1,032	1,076	1,121	1,168	1,218	1,269	1,323	1,379	1,437	1,498	1,561	1,627	1,696	1,768	1,842	1,920	2,001	2,086
3.9	822	856	892	930	969	1,009	1,052	1,096	1,142	1,190	1,240	1,292	1,346	1,402	1,461	1,523	1,586	1,653	1,722	1,794	1,870	1,948	2,030	2,115
4.0	839	874	911	949	988	1,029	1,072	1,117	1,163	1,212	1,262	1,315	1,369	1,426	1,486	1,548	1,612	1,679	1,749	1,822	1,898	1,977	2,059	2,145
4.1	857	892	929	968	1,008	1,049	1,093	1,138	1,185	1,234	1,285	1,338	1,393	1,451	1,511	1,573	1,638	1,706	1,776	1,849	1,926	2,005	2,088	2,174
4.2	875	911	948	987	1,028	1,070	1,114	1,159	1,207	1,256	1,308	1,361	1,417	1,475	1,536	1,599	1,664	1,733	1,804	1,878	1,954	2,035	2,118	2,205
4.3	893	930	968	1,007	1,048	1,091	1,135	1,181	1,229	1,279	1,331	1,385	1,442	1,500	1,562	1,625	1,691	1,760	1,832	1,906	1,984	2,064	2,148	2,236
4.4	912	949	987	1,027	1,069	1,112	1,157	1,204	1,252	1,303	1,355	1,410	1,467	1,526	1,588	1,652	1,718	1,788	1,860	1,935	2,013	2,094	2,179	2,267
4.5	932	969	1,008	1,048	1,090	1,134	1,179	1,226	1,275	1,326	1,380	1,435	1,492	1,552	1,614	1,679	1,746	1,816	1,889	1,964	2,043	2,125	2,210	2,298
4.6	951	989	1,028	1,069	1,112	1,156	1,202	1,249	1,299	1,351	1,404	1,460	1,518	1,579	1,641	1,706	1,774	1,845	1,918	1,994	2,073	2,156	2,241	2,330

(Continued)

Table A-11 (Continued)

Biparietal diameters	Abdominal circumferences																								
	28.5	29.0	29.5	30.0	30.5	31.0	31.5	32.0	32.5	33.0	33.5	34.0	34.5	35.0	35.5	36.0	36.5	37.0	37.5	38.0	38.5	39.0	39.5	40.0
4.7	971	1,010	1,049	1,091	1,134	1,178*	1,225	1,273	1,323	1,375	1,430	1,486	1,545	1,605	1,669	1,734	1,803	1,874	1,948	2,024	2,104	2,187	2,273	2,363
4.8	992	1,031	1,071	1,113	1,156	1,201	1,248	1,297	1,348	1,401	1,455	1,512	1,571	1,633	1,697	1,763	1,832	1,904	1,978	2,055	2,136	2,219	2,306	2,396
4.9	1,013	1,052	1,093	1,135	1,179	1,225	1,272	1,322	1,373	1,426	1,482	1,539	1,599	1,661	1,725	1,792	1,861	1,934	2,009	2,086	2,167	2,251	2,339	2,429
5.0	1,034	1,074	1,115	1,158	1,203	1,249	1,297	1,347	1,399	1,452	1,508	1,566	1,626	1,689	1,754	1,821	1,891	1,964	2,040	2,118	2,200	2,284	2,372	2,463
5.1	1,056	1,096	1,138	1,181	1,226	1,273	1,322	1,372	1,425	1,479	1,535	1,594	1,655	1,718	1,783	1,851	1,922	1,995	2,071	2,150	2,232	2,317	2,406	2,498
5.2	1,078	1,119	1,161	1,205	1,251	1,298	1,347	1,398	1,451	1,506	1,563	1,622	1,683	1,747	1,813	1,882	1,953	2,027	2,103	2,183	2,266	2,351	2,440	2,532
5.3	1,101	1,142	1,185	1,229	1,276	1,323	1,373	1,425	1,478	1,533	1,591	1,651	1,713	1,777	1,843	1,913	1,984	2,059	2,136	2,216	2,299	2,386	2,475	2,568
5.4	1,124	1,166	1,209	1,254	1,301	1,349	1,399	1,452	1,506	1,562	1,620	1,680	1,742	1,807	1,874	1,944	2,016	2,091	2,169	2,250	2,333	2,420	2,510	2,604
5.5	1,148	1,190	1,234	1,279	1,327	1,376	1,426	1,479	1,534	1,590	1,649	1,710	1,773	1,838	1,906	1,976	2,049	2,124	2,203	2,284	2,368	2,456	2,546	2,640
5.6	1,172	1,215	1,259	1,305	1,353	1,402	1,454	1,507	1,562	1,619	1,678	1,740	1,803	1,869	1,938	2,008	2,082	2,158	2,237	2,319	2,403	2,491	2,582	2,677
5.7	1,197	1,240	1,285	1,332	1,380	1,430	1,482	1,535	1,591	1,649	1,709	1,770	1,835	1,901	1,970	2,041	2,115	2,192	2,272	2,354	2,439	2,528	2,619	2,714
5.8	1,222	1,266	1,311	1,358	1,407	1,458	1,510	1,564	1,621	1,679	1,739	1,802	1,866	1,934	2,003	2,075	2,150	2,227	2,307	2,390	2,475	2,564	2,657	2,752
5.9	1,248	1,292	1,338	1,386	1,435	1,486	1,539	1,594	1,651	1,710	1,770	1,834	1,899	1,966	2,037	2,109	2,184	2,262	2,342	2,426	2,512	2,602	2,694	2,790
6.0	1,274	1,319	1,366	1,414	1,464	1,515	1,569	1,624	1,682	1,741	1,802	1,866	1,932	2,000	2,071	2,144	2,219	2,298	2,379	2,463	2,550	2,640	2,733	2,829
6.1	1,301	1,346	1,393	1,442	1,493	1,545	1,599	1,655	1,713	1,773	1,835	1,899	1,965	2,034	2,105	2,179	2,255	2,334	2,416	2,500	2,588	2.678	2,772	2,869
6.2	1,328	1,374	1,422	1,471	1,522	1,575	1,630	1,686	1,745	1,805	1,868	1,932	1,999	2,069	2,140	2,215	2,291	2,371	2,453	2,538	2,626	2,717	2,811	2,909
6.3	1,356	1,403	1,451	1,501	1,552	1,606	1,661	1,718	1,777	1,838	1,901	1,967	2,034	2,104	2,176	2,251	2,328	2,408	2,491	2,577	2.665	2,757	2,851	2,949
6.4	1,385	1,432	1,481	1,531	1,583	1,637	1,693	1,751	1,810	1,872	1,935	2,001	2,069	2,140	2,213	2,288	2,366	2,446	2,530	2,616	2,705	2,797	2,892	2,991

Biparietal diameters	Abdominal circumferences																								
	15.5	16.0	16.5	17.0	17.5	18.0	18.5	19.0	19.5	20.0	20.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0	24.5	25.0	25.5	26.0	26.5	27.0	27.5	28.0
6.6	614	635	656	678	701	724	748	773	799	826	853	882	911	942	973	1,006	1,039	1,074	1,110	1,147	1,185	1,225	1,266	1,308	1,352	1,397
6.7	632	653	675	697	720	744	769	794	820	848	876	905	935	965	997	1,030	1,065	1,100	1,136	1,174	1,213	1,253	1,294	1,337	1,381	1,427
6.8	651	672	694	717	740	765	790	816	842	870	898	928	958	990	1,022	1,056	1,090	1,126	1,163	1,201	1,241	1,281	1,323	1,367	1,411	1,458
6.9	670	691	714	737	761	786	811	838	865	893	922	952	983	1,015	1,048	1,082	1,117	1,153	1,190	1,229	1,269	1,310	1,353	1,397	1,442	1,489
7.0	689	711	734	758	782	807	833	860	888	916	946	976	1,008	1,040	1,074	1,108	1,144	1,181	1,219	1,258	1,298	1,340	1,383	1,427	1,473	1,521
7.1	709	732	755	779	804	830	856	883	912	941	971	1,002	1,033	1,066	1,100	1,135	1,171	1,209	1,247	1,287	1,328	1,370	1,414	1,459	1,505	1,553

7.2	730	763	777	801	827	853	880	907	936	965	996	1,027	1,060	1,093	1,128	1,163	1,200	1,238	1,277	1,317	1,358	1,401	1,445	1,491	1,538	1,586
7.3	751	775	799	824	850	876	904	932	961	991	1,022	1,054	1,087	1,121	1,156	1,192	1,229	1,267	1,307	1,348	1,390	1,433	1,478	1,524	1,571	1,620
7.4	773	797	822	847	874	901	928	957	987	1,017	1,049	1,081	1,114	1,149	1,184	1,221	1,259	1,297	1,338	1,379	1,421	1,465	1,511	1,557	1,605	1,655
7.5	796	820	845	871	898	925	954	983	1,013	1,044	1,076	1,109	1,143	1,178	1,214	1,251	1,289	1,328	1,369	1,411	1,454	1,499	1,544	1,592	1,640	1,690
7.6	819	844	870	896	923	951	980	1,009	1,040	1,072	1,104	1,137	1,172	1,207	1,244	1,281	1,320	1,360	1,401	1,444	1,487	1,533	1,579	1,627	1,676	1,727
7.7	843	868	894	921	949	977	1,007	1,037	1,068	1,100	1,133	1,167	1,202	1,238	1,275	1,313	1,352	1,393	1,434	1,477	1,522	1,567	1,614	1,663	1,712	1,764
7.8	868	894	920	947	975	1,004	1,034	1,065	1,096	1,129	1,162	1,197	1,232	1,269	1,306	1,345	1,385	1,426	1,468	1,512	1,557	1,603	1,650	1,699	1,749	1,801
7.9	893	919	946	974	1,003	1,032	1,062	1,094	1,126	1,159	1,193	1,228	1,264	1,301	1,339	1,378	1,418	1,460	1,503	1,547	1,592	1,639	1,687	1,737	1,787	1,840
8.0	919	946	973	1,002	1,031	1,061	1,091	1,123	1,156	1,189	1,224	1,259	1,296	1,333	1,372	1,412	1,453	1,495	1,538	1,583	1,629	1,676	1,725	1,775	1,826	1,879
8.1	946	973	1,001	1,030	1,060	1,090	1,121	1,153	1,187	1,221	1,256	1,292	1,329	1,367	1,406	1,446	1,488	1,531	1,575	1,620	1,666	1,714	1,763	1,814	1,866	1,919
8.2	974	1,001	1,030	1,059	1,089	1,120	1,152	1,185	1,218	1,253	1,288	1,325	1,363	1,401	1,441	1,482	1,524	1,567	1,612	1,657	1,704	1,753	1,803	1,854	1,906	1,960
8.3	1,002	1,030	1,059	1,089	1,120	1,151	1,183	1,217	1,251	1,286	1,322	1,359	1,397	1,436	1,477	1,518	1,561	1,605	1,650	1,696	1,744	1,793	1,843	1,895	1,948	2,002
8.4	1,032	1,060	1,090	1,120	1,151	1,183	1,216	1,249	1,284	1,320	1,356	1,394	1,433	1,473	1,513	1,555	1,599	1,643	1,689	1,735	1,784	1,833	1,884	1,936	1,990	2,045
8.5	1,062	1,091	1,121	1,151	1,183	1,216	1,249	1,283	1,318	1,355	1,392	1,430	1,469	1,510	1,551	1,594	1,637	1,682	1,728	1,776	1,825	1,875	1,926	1,979	2,033	2,089
8.6	1,093	1,122	1,153	1,184	1,216	1,249	1,283	1,318	1,354	1,390	1,428	1,467	1,507	1,548	1,589	1,633	1,677	1,722	1,769	1,817	1,866	1,917	1,969	2,022	2,077	2,134
8.7	1,125	1,155	1,186	1,218	1,250	1,284	1,318	1,353	1,390	1,427	1,465	1,505	1,545	1,586	1,629	1,673	1,717	1,764	1,811	1,859	1,909	1,960	2,013	2,067	2,122	2,179
8.8	1,157	1,188	1,220	1,252	1,285	1,319	1,354	1,390	1,427	1,465	1,504	1,543	1,584	1,626	1,669	1,714	1,759	1,806	1,854	1,903	1,953	2,005	2,058	2,113	2,169	2,226
8.9	1,191	1,222	1,254	1,287	1,321	1,356	1,391	1,428	1,465	1,503	1,543	1,583	1,625	1,667	1,711	1,756	1,802	1,849	1,897	1,947	1,998	2,050	2,104	2,159	2,216	2,274
9.0	1,226	1,258	1,290	1,324	1,358	1,393	1,429	1,456	1,504	1,543	1,583	1,624	1,666	1,709	1,753	1,799	1,845	1,893	1,942	1,992	2,044	2,097	2,151	2,207	2,264	2,322
9.1	1,262	1,294	1,327	1,361	1,396	1,432	1,468	1,506	1,544	1,584	1,624	1,666	1,708	1,752	1,797	1,843	1,890	1,938	1,988	2,039	2,091	2,144	2,199	2,255	2,313	2,372
9.2	1,299	1,332	1,365	1,400	1,435	1,471	1,508	1,546	1,586	1,626	1,667	1,709	1,752	1,796	1,841	1,888	1,936	1,984	2,035	2,086	2,139	2,193	2,248	2,305	2,363	2,423
9.3	1,337	1,370	1,404	1,439	1,475	1,512	1,550	1,588	1,628	1,668	1,710	1,753	1,796	1,841	1,887	1,934	1,982	2,032	2,083	2,135	2,188	2,242	2,298	2,356	2,414	2,475
9.4	1,376	1,410	1,444	1,480	1,516	1,554	1,592	1,631	1,671	1,712	1,755	1,798	1,842	1,887	1,934	1,982	2,030	2,080	2,132	2,184	2,238	2,293	2,350	2,407	2,467	2,527
9.5	1,416	1,450	1,486	1,522	1,559	1,597	1,635	1,675	1,716	1,758	1,800	1,844	1,889	1,935	1,982	2,030	2,080	2,130	2,182	2,235	2,289	2,345	2,402	2,460	2,520	2,582
9.6	1,457	1,492	1,528	1,565	1,602	1,641	1,680	1,720	1,762	1,804	1,847	1,892	1,937	1,984	2,031	2,080	2,130	2,181	2,233	2,287	2,342	2,398	2,456	2,515	2,575	2,637
9.7	1,500	1,535	1,572	1,609	1,547	1,686	1,726	1,767	1,809	1,852	1,895	1,940	1,986	2,033	2,082	2,131	2,181	2,233	2,286	2,340	2,396	2,452	2,510	2,570	2,631	2,693
9.8	1,544	1,580	1,617	1,654	1,693	1,733	1,773	1,815	1,857	1,900	1,945	1,990	2,037	2,085	2,133	2,183	2,234	2,286	2,340	2,395	2,451	2,508	2,567	2,627	2,688	2,751
9.9	1,589	1,625	1,663	1,701	1,740	1,781	1,822	1,864	1,907	1,951	1,996	2,042	2,089	2,137	2,186	2,237	2,288	2,341	2,395	2,450	2,507	2,565	2,624	2,684	2,746	2,810
10.0	1,635	1,672	1,710	1,749	1,789	1,830	1,871	1,914	1,958	2,002	2,048	2,094	2,142	2,191	2,241	2,292	2,344	2,397	2,452	2,507	2,564	2,623	2,682	2,743	2,806	2,870

(Continued)

Table A-11 (Continued)

Biparietal diameters	Abdominal circumferences																							
	28.5	29.0	29.5	30.0	30.5	31.0	31.5	32.0	32.5	33.0	33.5	34.0	34.5	35.0	35.5	36.0	36.5	37.0	37.5	38.0	38.5	39.0	39.5	40.0
6.6	1,444	1,492	1,542	1,594	1,647	1,702	1,759	1,817	1,878	1,941	2,006	2,073	2,142	2,213	2,287	2,364	2,443	2,524	2,609	2,696	2,786	2,879	2,975	3,075
6.7	1,474	1,523	1,574	1,626	1,679	1,735	1,792	1,852	1,913	1,976	2,042	2,109	2,179	2,251	2,326	2,403	2,482	2,564	2,649	2,737	2,827	2,921	3,018	3,117
6.8	1,505	1,555	1,606	1,658	1,713	1,769	1,827	1,887	1,949	2,012	2,078	2,147	2,217	2,290	2,365	2,442	2,522	2,605	2,690	2,778	2,869	2,964	3,061	3,161
6.9	1,537	1,587	1,639	1,692	1,747	1,803	1,862	1,922	1,985	2,049	2,116	2,184	2,255	2,329	2,404	2,482	2,563	2,646	2,732	2,821	2,912	3,007	3,104	3,205
7.0	1,570	1,620	1,672	1,726	1,781	1,839	1,898	1,959	2,022	2,087	2,154	2,223	2,295	2,368	2,444	2,523	2,604	2,688	2,774	2,863	2,955	3,050	3,149	3,250
7.1	1,603	1,654	1,706	1,761	1,817	1,875	1,934	1,996	2,059	2,125	2,193	2,262	2,334	2,409	2,485	2,564	2,646	2,730	2,817	2,907	2,999	3,095	3,193	3,295
7.2	1,636	1,688	1,741	1,796	1,853	1,911	1,971	2,044	2,098	2,164	2,232	2,302	2,375	2,450	2,527	2,607	2,689	2,773	2,861	2,951	3,044	3,140	3,239	3,341
7.3	1,671	1,723	1,777	1,832	1,890	1,948	2,009	2,072	2,137	2,203	2,272	2,343	2,416	2,491	2,569	2,649	2,732	2,817	2,905	2,996	3,089	3,186	3,285	3,388
7.4	1,706	1,759	1,813	1,869	1,927	1,987	2,048	2,111	2,176	2,244	2,313	2,384	2,458	2,534	2,612	2,693	2,776	2,862	2,950	3,041	3,135	3,232	3,332	3,435
7.5	1,742	1,795	1,850	1,907	1,965	2,025	2,087	2,151	2,217	2,265	2,354	2,426	2,501	2,577	2,656	2,737	2,821	2,907	2,996	3,088	3,182	3,279	3,380	3,483
7.6	1,779	1,833	1,888	1,945	2,004	2,065	2,127	2,192	2,258	2,326	2,397	2,469	2,544	2,621	2,700	2,782	2,866	2,953	3,042	3,134	3,229	3,327	3,428	3,531
7.7	1,816	1,871	1,927	1,985	2,044	2,105	2,168	2,233	2,300	2,369	2,440	2,513	2,588	2,666	2,746	2,828	2,912	3,000	3,090	3,182	3,277	3,376	3,477	3,581
7.8	1,855	1,910	1,966	2,025	2,085	2,146	2,210	2,275	2,343	2,412	2,484	2,557	2,633	2,711	2,792	2,874	2,959	3,047	3,137	3,230	3,326	3,425	3,526	3,631
7.9	1,894	1,949	2,006	2,065	2,126	2,188	2,252	2,318	2,386	2,456	2,528	2,603	2,679	2,757	2,838	2,921	3,007	3,095	3,186	3,279	3,376	3,475	3,576	3,681
8.0	1,934	1,990	2,048	2,107	2,168	2,231	2,296	2,362	2,431	2,501	2,574	2,649	2,725	2,804	2,886	2,969	3,056	3,144	3,235	3,329	3,426	3,525	3,627	3,733
8.1	1,975	2,031	2,089	2,149	2,211	2,275	2,340	2,407	2,476	2,547	2,620	2,695	2,773	2,852	2,934	3,018	3,105	3,194	3,286	3,380	3,477	3,577	3,679	3,785
8.2	2,016	2,073	2,132	2,193	2,255	2,319	2,385	2,462	2,522	2,594	2,667	2,743	2,821	2,901	2,983	3,068	3,155	3,244	3,336	3,431	3,529	3,629	3,732	3,838
8.3	2,059	2,116	2,176	2,237	2,300	2,364	2,431	2,499	2,569	2,641	2,715	2,791	2,870	2,950	3,033	3,118	3,206	3,296	3,388	3,483	3,581	3,682	3,785	3,891
8.4	2,102	2,160	2,220	2,282	2,345	2,410	2,477	2,546	2,617	2,689	2,764	2,841	2,920	3,001	3,084	3,169	3,257	3,348	3,441	3,536	3,634	3,735	3,839	3,945
8.5	2,146	2,205	2,266	2,328	2,392	2,457	2,525	2,594	2,665	2,739	2,814	2,891	2,970	3,052	3,135	3,221	3,310	3,401	3,494	3,590	3,688	3,790	3,894	4,000
8.6	2,192	2,251	2,312	2,375	2,439	2,505	2,573	2,643	2,715	2,789	2,864	2,942	3,022	3,104	3,188	3,274	3,363	3,454	3,548	3,644	3,743	3,845	3,949	4,056
8.7	2,238	2,298	2,359	2,423	2,488	2,554	2,623	2,693	2,765	2,840	2,916	2,994	3,074	3,157	3,241	3,328	3,417	3,509	3,603	3,700	3,799	3,901	4,005	4,113

8.8	2,285	2,346	2,408	2,472	2,537	2,604	2,673	2,744	2,817	2,892	2,968	3,047	3,128	3,210	3,295	3,383	3,472	3,565	3,659	3,756	3,855	3,958	4,063	4,170
8.9	2,333	2,394	2,457	2,521	2,587	2,655	2,725	2,796	2,869	2,944	3,021	3,101	3,182	3,265	3,351	3,438	3,528	3,621	3,716	3,813	3,913	4,015	4,120	4,228
9.0	2,382	2,444	2,507	2,572	2,639	2,707	2,777	2,849	2,923	2,998	3,076	3,155	3,237	3,321	3,407	3,495	3,585	3,678	3,773	3,871	3,971	4,074	4,179	4,287
9.1	2,433	2,495	2,559	2,624	2,691	2,760	2,830	2,903	2,977	3,053	3,131	3,211	3,293	3,377	3,464	3,552	3,643	3,736	3,832	3,930	4,030	4,133	4,239	4,347
9.2	2,484	2,547	2,611	2,677	2,744	2,814	2,885	2,958	3,032	3,109	3,187	3,268	3,350	3,435	3,522	3,611	3,702	3,795	3,891	3,989	4,090	4,193	4,299	4,408
9.3	2,536	2,599	2,664	2,731	2,799	2,869	2,940	3,014	3,089	3,166	3,245	3,326	3,409	3,494	3,581	3,670	3,761	3,855	3,951	4,050	4,151	4,254	4,361	4,469
9.4	2,590	2,653	2,719	2,786	2,854	2,925	2,997	3,070	3,146	3,224	3,303	3,384	3,468	3,553	3,641	3,738	3,822	3,916	4,013	4,111	4,213	4,316	4,423	4,532
9.5	2,644	2,709	2,774	2,842	2,911	2,982	3,054	3,129	3,205	3,283	3,362	3,444	3,528	3,614	3,701	3,791	3,884	3,978	4,075	4,174	4,275	4,379	4,486	4,595
9.6	2,700	2,765	2,831	2,899	2,969	3,040	3,113	3,188	3,264	3,343	3,423	3,505	3,589	3,675	3,763	3,854	3,946	4,041	4,138	4,237	4,339	4,443	4,550	4,659
9.7	2,757	2,822	2,889	2,958	3,028	3,099	3,173	3,248	3,325	3,404	3,484	3,567	3,651	3,738	3,826	3,917	4,010	4,105	4,202	4,302	4,404	4,508	4,615	4,724
9.8	2,815	2,881	2,948	3,017	3,088	3,160	3,234	3,309	3,387	3,466	3,547	3,630	3,715	3,802	3,890	3,981	4,074	4,170	4,267	4,367	4,469	4,573	4,680	4,790
9.9	2,874	2,941	3,009	3,078	3,149	3,222	3,296	3,372	3,450	3,529	3,611	3,694	3,779	3,866	3,956	4,047	4,140	4,236	4,333	4,433	4,536	4,640	4,747	4,857
10.0	2,935	3,002	3,070	3,140	3,211	3,285	3,359	3,436	3,514	3,594	3,676	3,759	3,845	3,932	4,022	4,113	4,207	4,303	4,400	4,501	4,603	4,708	4,815	4,924

Log (birth weight) = 1.7492 + 0.166(BPD) + 0.046(AC) − 2.646 (AC + BPD)/1,000.

SD = ±106.0 g/kg of birth weight.

From Shepard MJ, Richards VA, Berkowitz RL, *et al*. An evaluation of two equations for predicting fetal weight by ultrasound. *Am J Obstet Gynecol* 1982;142:47–55, with permission.

Table A-12 Amniotic fluid index values in normal pregnancy

Gestational age (wk)	Amniotic fluid index percentile values (mm)				
	3rd	5th	50th	95th	97th
16	73	79	121	185	201
17	77	83	127	194	211
18	80	87	133	202	220
19	83	90	137	207	225
20	86	93	141	212	230
21	88	95	143	214	233
22	89	97	145	216	235
23	90	98	146	218	237
24	90	98	147	219	238
25	89	97	147	221	240
26	89	97	147	223	242
27	85	95	146	226	245
28	86	94	146	228	249
29	84	92	145	231	254
30	82	90	145	234	258
31	79	88	144	238	263
32	77	86	144	242	269
33	74	83	143	245	274
34	72	81	142	248	278
35	70	79	140	249	279
36	68	77	138	249	279
37	66	75	135	244	275
38	65	73	132	239	269
39	64	72	127	226	255
40	63	71	123	214	240
41	63	70	116	194	216
42	63	69	110	175	192

Source: Adapted from Moore TR, Coyle JE. The amniotic fluid index in normal human pregnancy. *Am J Obstet Gynecol* 1990;162:1168.

Table A-13 A nomogram of the transverse cerebellar diameter (TCD) (mm)

Gestational age (wk)	Percentile		
	10th	50th	90th
15	13	14	16
16	14	16	17
17	16	17	18
18	17	18	19
19	18	19	20
20	19	20	21
21	20	21	23
22	22	23	24
23	23	24	26
24	23	26	28
25	25	27	30
26	26	28	32
27	27	30	33
28	28	31	35
29	29	33	38
30	31	35	40
31	33	38	42
32	34	39	43
33	35	40	44
34	38	41	44
35	41	42	45
36	42	43	45
37	43	45	48
38	45	48	50
39	48	52	55
40	52	55	58

Source: Goldstein I, Reece EA, Pilu G, *et al*. Cerebellar measurements with ultrasonography in the evaluation of fetal growth and development. *Am J Obstet Gynecol*. 1987;156:1065–9, with permission.

Table A-14 Reference values for umbilical artery Doppler resistive index and systolic/diastolic ratio

Percentiles GA (wk)	5th		50th		95th	
	RI	S/D ratio	RI	S/D ratio	RI	S/D ratio
16	0.70	3.39	0.80	5.12	0.90	10.50
17	0.69	3.27	0.79	4.86	0.89	9.46
18	0.68	3.16	0.78	4.63	0.88	8.61
19	0.67	3.06	0.77	4.41	0.87	7.90
20	0.66	2.97	0.76	4.22	0.86	7.30
21	0.65	2.88	0.75	4.04	0.85	6.78
22	0.64	2.79	0.74	3.88	0.84	6.33
23	0.63	2.71	0.73	3.73	0.83	5.94
24	0.62	2.64	0.72	3.59	0.82	5.59
25	0.61	2.57	0.71	3.46	0.81	5.28
26	0.60	2.50	0.70	3.34	0.80	5.01
27	0.59	2.44	0.69	3.22	0.79	4.76
28	0.58	2.38	0.68	3.12	0.78	4.53
29	0.57	2.32	0.67	3.02	0.77	4.33
30	0.56	2.26	0.66	2.93	0.76	4.14
31	0.55	2.21	0.65	2.84	0.75	3.97
32	0.54	2.16	0.64	2.76	0.74	3.81
33	0.53	2.11	0.63	2.68	0.73	3.66
34	0.52	2.07	0.62	2.61	0.72	3.53
35	0.51	2.03	0.61	2.54	0.71	3.40
36	0.50	1.98	0.60	2.47	0.70	3.29
37	0.49	1.94	0.59	2.41	0.69	3.18
38	0.47	1.90	0.57	2.35	0.67	3.08
39	0.46	1.87	0.56	2.30	0.66	2.98
40	0.45	1.83	0.55	2.24	0.65	2.89
41	0.44	1.80	0.54	2.19	0.64	2.81
42	0.43	1.76	0.53	2.14	0.63	2.73

GA, gestational age; RI, resistive index; S/D ratio, systolic/diastolic ratio.

Note: RI = 0.97199 – 0.01045 × GA (SD = 0.06078); systolic/diastolic ratio = 11(1 – RI).

Data from Kofinas AD, Espeland MA, Penry M, Swain M, Hatjis CG. Uteroplacental Doppler flow velocity waveform indices in normal pregnancy: a statistical exercise and the development of appropriate reference values. *Am J Perinatol* 1992;9:94–101.

Table A-15 Fetal thoracic circumference measurements (cm)

Gestational age (wk)	Predictive percentile									
	#	2.5	5	10	25	50	75	90	95	97.5
16	6	5.9	6.4	7.0	8.0	9.1	10.3	11.3	11.9	12.4
17	22	6.8	7.3	7.9	8.9	10.0	11.2	12.2	12.8	13.3
18	31	7.7	8.2	8.8	9.8	11.0	12.1	13.1	13.7	14.2
19	21	8.6	91	9.7	10.7	11.9	13.0	14.0	14.6	15.1
20	20	9.5	10.0	10.3	11.7	12.9	13.9	15.0	15.5	16.0
21	30	10.4	11.0	11.3	12.6	13.7	14.8	15.8	16.4	16.9
22	18	11.3	11.9	12.5	13.5	14.6	15.7	16.7	17.3	17.8
23	21	12.2	12.8	13.4	14.4	15.5	16.6	17.6	18.2	18.8
24	27	13.2	13.7	14.3	15.3	16.4	17.5	18.5	19.1	19.7
25	20	14.1	14.6	15.2	16.2	17.3	18.4	19.4	20.0	20.6
26	25	15.0	15.5	16.1	17.1	18.2	19.3	20.3	21.0	21.5
27	24	15.9	16.4	17.0	18.0	19.1	20.2	21.3	21.9	22.4
28	24	16.8	17.3	17.9	18.9	20.0	21.2	22.2	22.8	23.3
29	24	17.7	18.2	18.8	19.8	21.0	22.1	23.1	23.7	24.2
30	27	18.6	19.1	19.7	20.7	21.9	23.0	24.0	24.6	25.1
31	24	19.5	20.0	20.6	21.6	22.8	23.9	24.9	25.5	26.0
32	28	20.4	20.9	21.5	22.6	23.7	24.8	25.8	26.4	26.9
33	27	21.3	21.8	22.5	23.5	24.6	25.7	26.7	27.3	27.8
34	25	22.3	22.8	23.4	24.4	25.5	26.6	27.6	28.2	28.7
35	20	23.1	23.7	24.3	25.3	26.4	27.5	28.5	29.1	29.6
36	23	24.0	24.6	25.2	26.2	27.3	28.4	29.4	30.0	30.6
37	22	24.9	25.5	26.1	27.1	28.2	29.3	30.3	30.9	31.5
38	21	25.9	26.4	27.0	28.0	29.1	30.2	31.2	31.9	32.4
39	7	26.8	27.3	27.9	28.9	30.0	31.1	32.2	32.8	33.3
40	6	27.7	28.2	28.8	29.8	30.9	32.1	33.1	33.7	34.2

GA, gestational age; #, number.

Data from Chitkara U, Rosenberg J, Chervenak F, *et al*. Prenatal sonographic assessment of fetal thorax: normal values. *Am J Obstet Gynecol* 1987:156:1069–74.

Table A-16 Expected peak velocity (cm/sec) of systolic blood flow in the middle cerebral artery as a function of gestational age

Gestational age (wk)	Multiple of the median			
	1.00	1.29	1.50	1.55
18	23.2	29.9	34.8	36.0
20	25.5	32.8	38.2	39.5
22	27.9	36.0	41.9	43.3
24	30.7	39.5	46.0	47.5
26	33.6	43.3	50.4	52.1
28	36.9	47.6	55.4	57.2
30	40.5	52.2	60.7	62.8
32	44.4	57.3	66.6	68.9
34	48.7	62.9	73.1	75.6
36	53.5	69.0	80.2	82.9
38	58.7	75.7	88.0	91.0
40	64.4	83.0	96.6	99.8

GA, gestational age.
Data from Mari G. Noninvasive diagnosis by Doppler ultrasonography of fetal anemia due to maternal red-cell alloimmunization. *N Engl J Med* 2000;342:9–14.

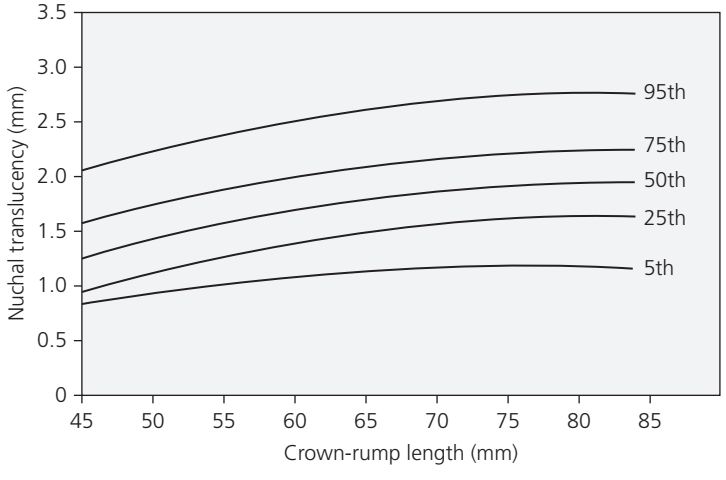

Figure A-1 Reference range of fetal nuchal translucency and chromosomal defects. Source: Nuchal translucency and chromosomal defects. In: KH Nicolaides, NJ Sebire, RJM Snijders (eds) The 11–14 week scan: the diagnosis of fetal abnormalities. New York: Parthenon Publishing, 1999.

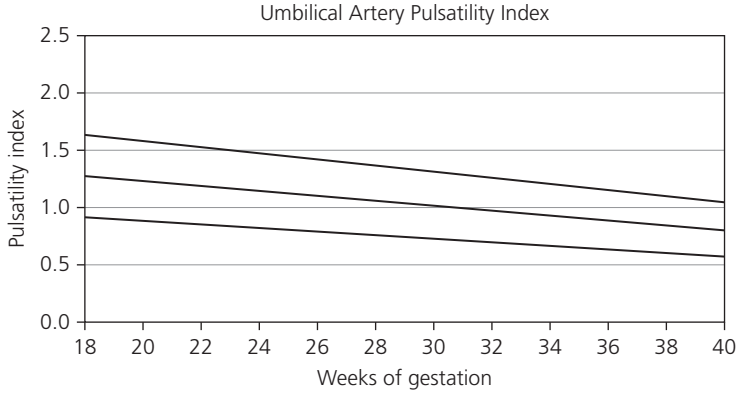

Figure A-2 Umbilical artery pulsatility index throughout gestation. Source: Ferrazzi E, Gementi P, Bellotti M, Rodolfi, M, Della Peruta S, Barbera A, Pardi G. Dopper velocimetry: critical analysis of umbilical, cerebral and aortic reference values. *Eur J Obstet Gynaecol* 1990;38:189–96.

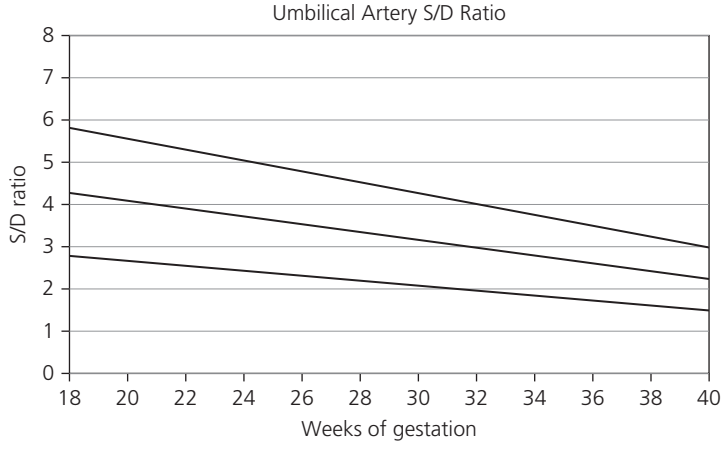

Figure A-3 Umbilical systolic/diastolic ratio throughout gestation. Source: Ferrazzi E, Gementi P, Bellotti M, Rodolfi, M, Della Peruta S, Barbera A, Pardi G. Dopper velocimetry: critical analysis of umbilical, cerebral and aortic reference values. *Eur J Obstet Gynaecol* 1990;38:189–96.

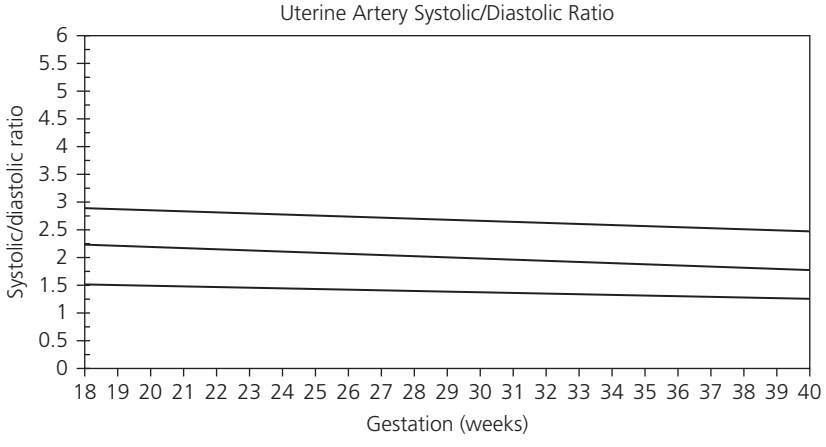

Figure A-4 Uterine artery systolic/diastolic ratio throughout gestation. Source: Ferrazzi E, Bulfamante G, Barbera A, Moneghini L, Pavesi A, Buscaglia M. Placental pathology and perinatal outcomes of fetuses with asymmetric growth alteration and abnomal uteroplacental Dopler waveforms. *It J Gynaec Obstet* 1992;3:89–92.