
Appendix

A-1. COMMON DRUGS AND CHEMICALS DESCRIBED IN ASSOCIATION WITH FETAL MALFORMATIONS

A frequent indication for sonographic examination is exposure to drugs or chemicals during pregnancy. A detailed discussion of the literature for each one of these drugs is out of the scope of this text. As a guide to the sonographer we have reproduced and modified this table published by Koren et al., describing the anomalies that can be detected with ultrasound.

<i>Drug</i>	<i>Central Nervous System</i>	<i>Cardiovascular</i>	<i>Skeleton</i>
Acetaminophen (overdose) Acetazolamide Acetylsalicylic acid		Intracranial hemorrhage	Sacrococcygeal teratoma
Albuteral Alcohol	Microcephaly	Fetal tachycardia	Short nose, hypoplastic maxilla, micrognathia, occasional features of skeleton
Amantadine		Single ventricle with pulmonary atresia	
Aminopterin*	Meningoencephalocele, hydrocephalus, incomplete skull ossification, brachycephaly, anencephaly		Hypoplasia of thumb and fibula, clubfoot, syndactyly, hypognathia
Amitriptyline			Micrognathia
Amobarbital	Anencephaly	Congenital heart malformations	
Antithyroid drugs*			
Azathioprine* Betamethasone Bromides	Reduced head circumference	Pulmonary valvular stenosis	
Busulfan			Musculoskeletal defects
Caffeine Captopril Carbon monoxide* Carbamazepine	Cerebral atrophy, hydrocephalus Meningomyelocele	Atrial septal defect, patent ductus arteriosus	Nose hypoplasia, hypertelorism
Chlordiazepoxide Chloroquine Chlorpheniramine	Microcephaly Hydrocephalus	Congenital defects of heart	
Chlorpropamide	Microcephaly		
Clomiphene	Meningomyelocele, hydrocephalus, microcephaly, anencephaly		
Codeine	Hydrocephalus	Congenital cardiac defects	Musculoskeletal malformations
Cortisone	Hydrocephalus	Ventricular septal defect, coarctation of aorta	
Coumadin*	Encephalocele, anencephaly, spina bifida	Congenital heart disease	Nasal hypoplasia, scoliosis, skeletal deformities
Cyclophosphamide*	Tetralogy of Fallot		Flattened nasal bridge

<i>Drug</i>	<i>Extremities</i>	<i>Gastrointestinal</i>	<i>Genitourinary</i>	<i>Miscellaneous</i>	<i>Source</i>
Acetaminophen (overdose)				Polyhydramnios	CR
Acetazolamide					CR
Acetylsalicylic acid				Growth retardation	CR
					RS
					PS
Albuteral					PS
Alcohol				Growth retardation	CR
					RS
					PS
Amantadine					CR
Aminopterin*					CR
Amitriptyline	Limb reduction, swelling of hands and feet		Urinary retention		CR
Amobarbital	Severe limb deformities, congenital hip dislocation, polydactyly, clubfoot	Oral cleft	Intersex	Soft tissue deformity of neck	CR
					PS
					RS
Antithyroid drugs*				Goiter	CR
					RS
					CR
Azathioprine*	Polydactyly				AS
Betamethasone	Polydactyly, clubfoot, congenital dislocation of hip				CR
Bromides					PS
Busulfan		Pyloric stenosis, cleft palate		Microphthalmia, growth retardation	CR
Caffeine	Leg reduction		Hydronephrosis		PS
Captopril					CR
Carbon monoxide*				Stillbirth	CR
Carbamazepine	Congenital hip dislocation	Cleft lip			CR
					PS
					RS
					RS
					CR
Chlordiazepoxide				Hemihypertrophy	PS
Chloroquine	Polydactyly, congenital dislocation of hip				
Chlorpheniramine	Dysmorphic hands and fingers				CR
Chlorpropamide	Syndactyly, clubfoot, polydactyly	Esophageal atresia			CR
					RS
Clomiphene	Dislocated hip	Pyloric stenosis, oral cleft		Respiratory malformations	PS
					RS
Codeine	Clubfoot	Cleft lip			CR
Cortisone	Stippled epiphysis, chondroplasia punctata, short phalanges, toe defects	Incomplete rotation of gut		Growth retardation, bleeding	CR
					RS
Coumadin*					
Cyclophosphamide*	Four toes on each foot, hypoplastic midphalanx, syndactyly				CR

(Continued)

A-1. (Continued)

Drug	Central Nervous System	Cardiovascular	Skeleton
Cytarabine*	Anencephaly	Tetralogy of Fallot	
Daunorubicin*	Anencephaly	Tetralogy of Fallot	
Dextroamphetamine	Exencephaly	More cardiac defects than controls, atrial septal defect	
Diazepam	Spina bifida	More cardiac defects than controls	
Diphenhydramine			Vertebral fusion
Disulfiram			
Diuretics			
Estrogens		Congenital cardiac malformation	
Ethanol*	Microcephaly	Ventral septal defect, atrial septal defect, double outlet of right ventricle, pulmonary atresia, dextrocardia, patent ductus arteriosus, tetralogy of Fallot	Short nose, hypoplastic philtrum, micrognathia, pectus excavatum, radioulnar synostosis, bifid xyphoid, scoliosis
Ethosuximide	Hydrocephalus		Short neck
Fluorouracil			Poor ossification of frontal bone
Fluphenazine			
Haloperidol			
Heparin*			
Hormones, progestogenic	Anencephaly, hydrocephalus	Tetralogy of Fallot, truncus arteriosus, ventral septal defect	Spina bifida
Imipramine	Exencephaly		
Indomethacin			
Isoniazid	Meningomyelocele		
Lithium	Hydrocephalus, meningomyelocele	Ventral septal defect, Ebstein's anomaly, mitral atresia, patent ductus arteriosus, dextrocardia	Spina bifida
Lysergic acid diethylamide	Hydrocephalus, encephalocele, meningomyelocele		
Meclizine		Hypoplastic left heart	
Meprobamate		Congenital heart malformations	
Methotrexate*	Oxycephaly, absence of frontal bone, large fontanelles	Dextrocardia	Hypoplastic mandible
Methyl mercury*	Microcephaly, asymmetric head		
Metronidazole			Midline facial defects
Nortriptyline			Vertebral malformations
Oral contraceptives	Meningomyelocele, hydrocephalus, anencephaly	Cardiac anomalies	
Paramethadione		Tetralogy of Fallot	
Penicillamine		Ventral septal defect	
Phenobarbital	Hydrocephalus, meningomyelocele		
Phenothiazines	Microcephaly		
Phenylephrine			Eye and ear abnormalities
Phenylpropanolamine			Pectus excavatus

<i>Drug</i>	<i>Extremities</i>	<i>Gastrointestinal</i>	<i>Genitourinary</i>	<i>Miscellaneous</i>	<i>Source</i>
Cytarabine*	Lobster claw of 3 digits, missing feet digits, syndactyly				CR
Daunorubicin* Dextroamphetamine	Syndactyly			Growth retardation	CR CR RS CR RS
Diazepam	Absence of arm, syndactyly, absence of thumbs	Cleft lip-palate			CR CR RS
Diphenhydramine	Clubfoot	Cleft palate			PS CR CR
Disulfiram	Clubfoot, radial aplasia, phocomelia	Tracheoesophageal fistula			CR
Diuretics				Respiratory malformations	PS
Estrogens	Limb reduction				CR PS
Ethanol*		Oral cleft		Growth retardation, diaphragmatic hernia	RS PS
Ethosuximide		Oral cleft			CR
Fluorouracil	Radial aplasia, absent thumbs	Aplasia of esophagus and duodenum		Hypoplasia of lungs	CR CR
Fluphenazine		Oral cleft			CR
Haloperidol	Limb deformities				RS
Heparin*				Bleeding	CR RS CR
Hormones, progestogenic	Absence of thumbs				CR
Imipramine	Limb reduction	Cleft palate	Renal cystic degeneration	Diaphragmatic hernia	CR
Indomethacin	Phocomelia			Stillbirth, hemorrhage	CR
Isoniazid					CR
Lithium					CR PS
Lysergic acid diethylamide	Limb deficiencies				CR RS RS
Meclizine				Respiratory defects	RS
Meprobamate	Bilateral defects of limbs				RS CR
Methotrexate*	Long webbed fingers			Growth retardation, low-set ears	CR
Methyl mercury*					RS CR CR
Metronidazole	Limb reduction				CR
Nortriptyline	Limb reduction	Tracheoesophageal malformations		Growth retardation	CR RS
Oral contraceptives					CR
Paramethadione		Pyloric stenosis		Growth retardation	CR
Penicillamine		Cleft palate, ileal atresia		Growth retardation	CR
Phenobarbital	Digital anomalies			Growth retardation, pulmonary hypoplasia	CR
Phenothiazines	Syndactyly, clubfoot	Omphalocele, abdominal distention			CR PS
Phenylephrine	Syndactyly, clubfoot, congenital dislocation of hip	Umbilical hernia			PS
Phenylpropanolamine	Polydactyly, congenital dislocation of hip				PS

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A-1. (Continued)

Drug	Central Nervous System	Cardiovascular	Skeleton
Phenytoin*	Microcephaly, wide fontanelles	Congenital heart malformation	Rib-sternal abnormalities, short nose, broad nasal bridge, wide fontanelle, broad alveolar ridge, short neck, hypertelorism, low-set ears
Polychlorinated biphenyls*			Spotted calcification in skull, fontanelle and sagittal suture
Primidone		Ventral septal defect	Webbed neck, small mandible
Procarbazine*	Cerebral hemorrhage		
Quinine	Hydrocephalus	Congenital heart defects	Facial defects, vertebral anomalies
Retinoic acid*	Hydrocephalus, microcephaly	Various congenital heart defects	Malformations of cranium, ear, face, ribs
Spermicides			
Sulfonamide			
Tetracycline			
Thalidomide*		Congenital heart malformations	Spine malformation
Thioguanine			
Tobacco			
Tolbutamide			
Trifluoperazine		Transposition of great arteries	
Trimethadione*	Microcephaly	Atrial septal defect, ventral septal defect	Low-set ears, broad nasal bridge
Valproic acid*	Lumbosacral meningomyelocele, microcephaly, wide fontanelle	Tetralogy of Fallot	Depressed nasal bridge, hypoplastic nose, low-set ears, small mandibles

Since only malformations that can be visualized by current ultrasonographic techniques are listed, the guide cannot be used as a complete list of drug-induced teratogenicity. CR = case reports; RS = retrospective studies; PS = prospective studies; AS = animal studies.

* Proved to be teratogenic.

Reproduced with permission from Koren G, Edwards MB, Miskin M: Antenatal sonography of fetal malformations associated with drugs and chemicals: A guide. *Am J Obstet Gynecol* 176(1):79, 1987.

<i>Drug</i>	<i>Extremities</i>	<i>Gastrointestinal</i>	<i>Genitourinary</i>	<i>Miscellaneous</i>	<i>Source</i>
Phenytoin*	Hypoplastic distal phalanges, digital thumb, dislocated hip	Cleft palate-lip		Growth retardation	CR PS
Polychlorinated biphenyls*				Stillbirth, growth retardation	PS
Primidone					RS CR
Procarbazine*	Oligodactyly				CR
Quinine	Dysmelias				CR
Retinoic acid*	Limb deformities			Stillbirth	RS PS
Spermicides	Limb reduction				RS
Sulfonamide	Hypoplasia of limb or part of it, foot defects		Urethral obstructions		PS
Tetracycline	Hypoplasia of limb or part of it, clubfoot				CR PS
Thalidomide*	Limb reduction (amelia, phocomelia), hypoplasia	Duodenal stenosis or atresia, pyloric stenosis		Microtia	RS PS
Thioguanine	Missing digits				CR
Tobacco				Growth retardation	PS RS
Tolbutamide	Finger-toe syndactyly, absent toes, accessory thumb				CR
Trifluoperazine	Phocomelia				CR
Trimethadione*	Malformed hands, clubfoot	Esophageal atresia		Growth deficiency	CR PS
Valproic acid*		Oral cleft		Growth deficiency	CR

A-2. BIPARIETAL DIAMETER (BPD) VERSUS GESTATIONAL AGE

<i>BPD (cm)</i>	<i>Gestational age (weeks)</i>	<i>BPD (cm)</i>	<i>Gestational age (weeks)</i>	<i>BPD (cm)</i>	<i>Gestational age (weeks)</i>	<i>BPD (cm)</i>	<i>Gestational age (weeks)</i>
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	14.5	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	31.6	9.8	41.0
3.9	17.7	5.9	24.2	7.9	32.0	9.9	41.5
						10.0	42.0

A-3. HEAD CIRCUMFERENCE VERSUS GESTATIONAL AGE

<i>Circumference (mm)</i>	<i>Number of Fetuses</i>	<i>Mean Age (weeks)</i>	<i>Standard Deviation</i>	<i>Circumference (mm)</i>	<i>Number of Fetuses</i>	<i>Mean Age (weeks)</i>	<i>Standard Deviation</i>
90	13	15.1	0.3	230	40	26.2	1.3
100	3	15.0	0	240	46	26.9	2.3
110	11	15.4	0.8	250	58	28.3	1.5
120	20	16.2	1.1	260	76	29.6	1.9
130	21	17.2	1.4	270	88	31.0	1.9
140	17	17.9	0.9	280	106	33.0	2.3
150	27	18.8	1.3	290	111	34.1	2.5
160	27	20.1	1.4	300	135	35.9	2.2
170	29	20.5	1.1	310	140	36.7	3.9
180	23	21.3	1.1	320	92	37.5	1.8
190	28	22.2	1.2	330	48	38.1	2.0
200	33	23.3	1.2	340	17	39.3	2.1
210	27	24.1	1.2	350	7	38.7	1.8
220	35	24.7	1.2				

Reproduced with permission from Ott WJ: The use of ultrasonic fetal head circumference for predicting expected date of confinement. J Clin Ultrasound 12:411, 1984.

A-4. GESTATIONAL AGES AS OBTAINED FROM THE LONG BONES (IN WEEKS + DAYS)

Bone Length (mm)	Femur Percentile			Humerus Percentile			Ulna Percentile			Tibia Percentile		
	5th	50th	95th	5th	50th	95th	5th	50th	95th	5th	50th	95th
10	10 + 3	12 + 4	14 + 6	9 + 6	12 + 4	15 + 2	10 + 1	13 + 1	16 + 1	10 + 4	13 + 3	16 + 2
11	10 + 5	12 + 6	15 + 1	10 + 1	12 + 6	15 + 4	10 + 4	13 + 4	16 + 4	10 + 6	13 + 5	16 + 4
12	11 + 1	13 + 2	15 + 4	10 + 3	13 + 1	15 + 6	10 + 6	13 + 6	16 + 6	11 + 1	14 + 1	17 + 1
13	11 + 3	13 + 4	15 + 6	10 + 6	13 + 4	16 + 1	11 + 1	14 + 1	17 + 2	11 + 4	14 + 3	17 + 2
14	11 + 5	13 + 6	16 + 1	11 + 1	13 + 6	16 + 4	11 + 4	14 + 4	17 + 5	11 + 6	14 + 6	17 + 5
15	12	14 + 1	16 + 3	11 + 3	14 + 1	16 + 6	11 + 6	15	18	12 + 1	15 + 1	18
16	12 + 3	14 + 4	16 + 6	11 + 6	14 + 4	17 + 2	12 + 2	15 + 3	18 + 3	12 + 4	15 + 4	18 + 3
17	12 + 5	14 + 6	17 + 1	12 + 1	14 + 6	17 + 4	12 + 5	15 + 5	18 + 6	13	15 + 6	18 + 6
18	13	15 + 1	17 + 3	12 + 4	15 + 1	18	13 + 1	16 + 1	19 + 1	13 + 2	16 + 1	19 + 1
19	13 + 3	15 + 4	17 + 6	12 + 6	15 + 4	18 + 2	13 + 4	16 + 4	19 + 4	13 + 5	16 + 4	19 + 4
20	13 + 5	15 + 6	18 + 1	13 + 1	15 + 6	18 + 5	13 + 6	16 + 6	20	14 + 1	17	19 + 6
21	14 + 1	16 + 2	18 + 4	13 + 4	16 + 2	19 + 1	14 + 2	17 + 2	20 + 3	14 + 4	17 + 3	20 + 2
22	14 + 3	16 + 4	18 + 6	13 + 6	16 + 5	19 + 3	14 + 5	17 + 5	20 + 6	14 + 6	17 + 6	20 + 5
23	14 + 5	16 + 6	19 + 1	14 + 2	17 + 1	19 + 6	15 + 1	18 + 1	21 + 1	15 + 1	18 + 1	21 + 1
24	15 + 1	17 + 2	19 + 4	14 + 5	17 + 3	20 + 1	15 + 4	18 + 4	21 + 4	15 + 4	18 + 4	21 + 3
25	15 + 3	17 + 4	19 + 6	15 + 1	17 + 6	20 + 4	16	19	22 + 1	16	18 + 6	21 + 6
26	15 + 6	18	20 + 1	15 + 4	18 + 1	21	16 + 3	19 + 3	22 + 4	16 + 3	19 + 2	22 + 1
27	16 + 1	18 + 2	20 + 4	15 + 6	18 + 4	21 + 3	16 + 6	19 + 6	22 + 6	16 + 6	19 + 5	22 + 4
28	16 + 4	18 + 5	20 + 6	16 + 2	19	21 + 6	17 + 2	20 + 2	23 + 3	17 + 1	20 + 1	23
29	16 + 6	19	21 + 1	16 + 5	19 + 3	22 + 1	17 + 5	20 + 6	23 + 6	17 + 4	20 + 4	23 + 4
30	17 + 1	19 + 3	21 + 4	17 + 1	19 + 6	22 + 4	18 + 1	21 + 1	24 + 2	18 + 1	21	23 + 6
31	17 + 4	19 + 6	22	17 + 4	20 + 2	23	18 + 4	21 + 5	24 + 6	18 + 4	21 + 3	24 + 2
32	17 + 6	20 + 1	22 + 2	18	20 + 5	23 + 4	19 + 1	22 + 1	25 + 1	18 + 6	21 + 6	24 + 5
33	18 + 2	20 + 4	22 + 5	18 + 3	21 + 1	23 + 6	19 + 4	22 + 5	25 + 5	19 + 2	22 + 1	25 + 1
34	18 + 5	20 + 6	23 + 1	18 + 6	21 + 4	24 + 2	20 + 1	23 + 1	26 + 1	19 + 5	22 + 4	25 + 4
35	19	21 + 1	23 + 3	19 + 2	22	24 + 6	20 + 4	34 + 4	26 + 5	20 + 1	23 + 1	26
36	19 + 3	21 + 4	23 + 6	19 + 5	22 + 4	25 + 1	21 + 1	24 + 1	27 + 1	20 + 4	23 + 4	26 + 3
37	19 + 6	22	24 + 1	20 + 1	22 + 6	25 + 5	21 + 4	24 + 4	27 + 5	21	23 + 6	26 + 6
38	20 + 1	22 + 3	24 + 4	20 + 4	23 + 3	26 + 1	22 + 1	25 + 1	28 + 1	21 + 4	24 + 3	27 + 2
39	20 + 4	22 + 5	24 + 6	21 + 1	23 + 6	26 + 4	22 + 4	25 + 4	28 + 5	21 + 6	24 + 6	27 + 5
40	20 + 6	23 + 1	25 + 2	21 + 4	24 + 2	27 + 1	23 + 1	26 + 1	29 + 1	22 + 3	25 + 2	28 + 1
41	21 + 2	23 + 4	25 + 5	22	24 + 6	27 + 4	23 + 4	26 + 5	29 + 5	22 + 6	25 + 5	28 + 4
42	21 + 5	23 + 6	26 + 1	22 + 4	25 + 2	28	24 + 1	27 + 1	30 + 2	23 + 2	26 + 1	29 + 1
43	22 + 1	24 + 2	26 + 4	23	25 + 5	28 + 4	24 + 5	27 + 5	30 + 6	23 + 5	26 + 4	29 + 4
44	22 + 4	24 + 5	26 + 6	23 + 4	26 + 1	29	25 + 1	28 + 2	31 + 2	24 + 1	27 + 1	30
45	22 + 6	25	27 + 1	24	26 + 5	29 + 4	25 + 6	28 + 6	31 + 6	24 + 4	27 + 4	30 + 4
46	23 + 1	25 + 3	27 + 4	24 + 4	27 + 1	30	26 + 2	29 + 3	32 + 3	25 + 1	28	30 + 6
47	23 + 4	25 + 6	28	25	27 + 5	30 + 4	26 + 6	29 + 6	33	25 + 4	28 + 4	31 + 3
48	24	26 + 1	28 + 3	25 + 4	28 + 1	31	27 + 3	30 + 4	33 + 4	26 + 1	29	31 + 6
49	24 + 3	26 + 4	28 + 6	26	28 + 6	31 + 4	28	31 + 1	34 + 1	26 + 4	29 + 3	32 + 2
50	24 + 6	27	29 + 1	26 + 4	29 + 2	32	28 + 4	31 + 4	34 + 5	27	29 + 6	32 + 6
51	25 + 1	27 + 3	29 + 4	27 + 1	29 + 6	32 + 4	29 + 1	32 + 1	35 + 2	27 + 4	30 + 3	33 + 2
52	25 + 4	27 + 6	30	27 + 4	30 + 2	33 + 1	29 + 5	32 + 6	35 + 6	28	30 + 6	33 + 6
53	26	28 + 1	30 + 3	28 + 1	30 + 6	33 + 4	30 + 2	33 + 3	36 + 3	28 + 4	31 + 3	34 + 2
54	26 + 3	28 + 4	30 + 6	28 + 5	31 + 3	34 + 1	30 + 6	34	37	29	31 + 6	34 + 6
55	26 + 6	29 + 1	31 + 2	29 + 1	32	34 + 5	31 + 4	34 + 4	37 + 5	29 + 4	32 + 3	35 + 2
56	27 + 2	29 + 4	31 + 5	29 + 6	32 + 4	35 + 2	32 + 1	35 + 1	38 + 2	30	32 + 6	35 + 6
57	27 + 5	29 + 6	32 + 1	30 + 2	33 + 1	35 + 6	32 + 6	35 + 6	38 + 6	30 + 4	33 + 3	36 + 2
58	28 + 1	30 + 2	32 + 4	30 + 6	33 + 4	36 + 3	33 + 3	36 + 3	39 + 4	31	33 + 6	36 + 6
59	28 + 4	30 + 5	32 + 6	31 + 3	34 + 1	36 + 6	34	37 + 1	40 + 1	31 + 4	34 + 3	37 + 2
60	28 + 6	31 + 1	33 + 2	32	34 + 6	37 + 4	34 + 4	37 + 5	40 + 6	32	34 + 6	37 + 6
61	29 + 3	31 + 4	33 + 6	32 + 4	35 + 2	38 + 1	35 + 2	38 + 2	41 + 3	32 + 4	35 + 3	38 + 2
62	29 + 6	32	34 + 1	33 + 1	35 + 6	38 + 5	35 + 6	39	42	33	35 + 6	38 + 6
63	30 + 1	32 + 3	34 + 4	33 + 6	36 + 4	39 + 2	36 + 4	39 + 4	42 + 5	33 + 4	36 + 4	39 + 3
64	30 + 5	32 + 6	35 + 1	34 + 3	37 + 1	39 + 6	37 + 1	40 + 2	43 + 2	34 + 1	37	39 + 6
65	31 + 1	33 + 2	35 + 4	35	37 + 5	40 + 4				34 + 4	37 + 4	40 + 3
66	31 + 4	33 + 5	35 + 6	35 + 4	38 + 2	41 + 1				35 + 1	38	41
67	32	34 + 1	36 + 3	36 + 1	38 + 6	41 + 5				35 + 5	38 + 4	41 + 4
68	32 + 3	34 + 4	36 + 6	36 + 6	39 + 4	42 + 2				36 + 1	39 + 1	42
69	32 + 6	35	37 + 1	37 + 3	40 + 1	42 + 6				36 + 6	39 + 5	42 + 4
70	33 + 2	35 + 4	37 + 5									
71	33 + 5	35 + 6	38 + 1									
72	34 + 1	36 + 3	38 + 4									
73	34 + 4	36 + 6	39									
74	35 + 1	37 + 2	39 + 4									
75	35 + 4	37 + 5	39 + 6									
76	36	38 + 1	40 + 3									
77	36 + 3	38 + 4	40 + 6									
78	36 + 6	39 + 1	41 + 2									
79	37 + 2	39 + 4	41 + 5									
80	37 + 6	40	42 + 1									

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A-5. 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
3.1	224	234	244	255	267	279	291	304	318	332	346	362	378
3.2	231	241	251	263	274	286	299	312	326	340	355	371	388
3.3	237	248	259	270	282	294	307	321	335	349	365	381	397
3.4	244	255	266	278	290	302	316	329	344	359	374	391	408
3.5	251	262	274	285	298	311	324	338	353	368	384	401	418
3.6	259	270	281	294	306	319	333	347	362	378	394	411	429
3.7	266	278	290	302	315	328	342	357	372	388	404	422	440
3.8	274	286	298	310	324	337	352	366	382	398	415	432	451
3.9	282	294	306	319	333	347	361	376	392	409	426	444	462
4.0	290	303	315	328	342	356	371	386	403	419	437	455	474
4.1	299	311	324	338	352	366	381	397	413	430	448	467	486
4.2	308	320	333	347	361	376	392	408	424	442	460	479	498
4.3	317	330	343	357	371	387	402	419	436	453	472	491	511
4.4	326	339	353	367	382	397	413	430	447	465	484	504	524
4.5	335	349	363	377	393	408	425	442	459	478	497	517	538
4.6	345	359	373	388	404	420	436	454	472	490	510	530	551
4.7	355	369	384	399	415	431	448	466	484	503	523	544	565
4.8	366	380	395	410	426	443	460	478	497	517	537	558	580
4.9	376	391	406	422	438	455	473	491	510	530	551	572	594
5.0	387	402	418	434	451	468	486	505	524	544	565	587	610
5.1	399	414	430	446	463	481	499	518	538	559	580	602	625
5.2	410	426	442	459	476	494	513	532	552	573	595	618	641
5.3	422	438	455	472	489	508	527	547	567	589	611	634	657
5.4	435	451	468	485	503	522	541	561	582	604	627	650	674
5.5	447	464	481	499	517	536	556	577	598	620	643	667	691
5.6	461	477	495	513	532	551	571	592	614	636	660	684	709
5.7	474	491	509	527	547	566	587	608	630	653	677	701	727
5.8	488	505	524	542	562	582	603	625	647	670	695	719	745
5.9	502	520	539	558	578	598	619	642	664	688	713	738	764
6.0	517	535	554	573	594	615	636	659	682	706	731	757	784
6.1	532	550	570	590	610	632	654	677	700	725	750	777	804
6.2	547	566	586	606	627	649	672	695	719	744	770	797	824
6.3	563	583	603	624	645	667	690	714	738	764	790	817	845
6.4	580	600	620	641	663	686	709	733	758	784	811	838	867
6.5	597	617	638	659	682	705	728	753	778	805	832	860	889
6.6	614	635	656	678	701	724	748	773	799	826	853	882	911
6.7	632	653	675	697	720	744	769	794	820	848	876	905	935
6.8	651	672	694	717	740	765	790	816	842	870	898	928	958
6.9	670	691	714	737	761	786	811	838	865	893	922	952	983
7.0	689	711	734	758	782	807	833	860	888	916	946	976	1,008
7.1	709	732	755	779	804	830	856	883	912	941	971	1,002	1,033
7.2	730	763	777	801	827	853	880	907	936	965	996	1,027	1,060
7.3	751	775	799	824	850	876	904	932	961	991	1,022	1,054	1,087
7.4	773	797	822	847	874	901	928	957	987	1,017	1,049	1,081	1,114
7.5	796	820	845	871	898	925	954	983	1,013	1,044	1,076	1,109	1,143
7.6	819	844	870	896	923	951	980	1,009	1,040	1,072	1,104	1,137	1,172
7.7	843	868	894	921	949	977	1,007	1,037	1,068	1,100	1,133	1,167	1,202
7.8	868	894	920	947	975	1,004	1,034	1,065	1,096	1,129	1,162	1,197	1,232
7.9	893	919	946	974	1,003	1,032	1,062	1,094	1,126	1,159	1,193	1,228	1,264
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
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
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
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
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
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
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
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
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
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
9.0	1,226	1,258	1,290	1,324	1,358	1,393	1,429	1,466	1,504	1,543	1,583	1,624	1,666
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
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
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
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
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
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
9.7	1,500	1,535	1,572	1,609	1,647	1,686	1,726	1,767	1,809	1,852	1,895	1,940	1,986
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
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
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

A-5. (Continued)

Biparietal Diameters	Abdominal Circumferences											
	22.0	22.5	23.0	23.5	24.0	24.5	25.0	25.5	26.0	26.5	27.0	27.5
3.1	395	412	431	450	470	491	513	536	559	584	610	638
3.2	405	423	441	461	481	502	525	548	572	597	624	651
3.3	415	433	452	472	493	514	537	560	585	611	638	666
3.4	425	444	463	483	504	526	549	573	598	624	652	680
3.5	436	455	475	495	517	539	562	587	612	638	666	695
3.6	447	466	486	507	529	552	575	600	626	653	681	710
3.7	458	478	498	519	542	565	589	614	640	667	696	725
3.8	470	490	510	532	554	578	602	628	654	682	711	741
3.9	482	502	523	545	568	592	616	642	669	697	727	757
4.0	494	514	536	558	581	606	631	657	684	713	743	773
4.1	506	527	549	572	595	620	645	672	700	729	759	790
4.2	519	540	562	585	609	634	660	688	716	745	776	807
4.3	532	554	576	600	624	649	676	703	732	762	793	825
4.4	545	567	590	614	639	665	692	719	749	779	810	843
4.5	559	581	605	629	654	680	708	736	765	796	828	861
4.6	573	596	620	644	670	696	724	753	783	814	846	880
4.7	588	611	635	660	686	713	741	770	801	832	865	899
4.8	602	626	650	676	702	730	758	788	819	851	884	919
4.9	617	641	666	692	719	747	776	806	837	870	903	938
5.0	633	657	683	709	736	765	794	824	856	889	923	959
5.1	649	674	699	726	754	783	812	843	876	909	944	980
5.2	665	690	717	744	772	801	831	863	895	929	964	1,001
5.3	682	708	734	762	790	820	851	883	916	950	986	1,023
5.4	699	725	752	780	809	839	870	903	936	971	1,007	1,045
5.5	717	743	771	799	828	859	891	924	958	993	1,030	1,068
5.6	735	762	789	818	848	879	911	945	979	1,015	1,052	1,091
5.7	753	780	809	838	869	900	933	966	1,001	1,038	1,075	1,114
5.8	772	800	829	858	889	921	954	989	1,024	1,061	1,099	1,139
5.9	792	820	849	879	911	943	977	1,011	1,047	1,085	1,123	1,163
6.0	811	840	870	900	932	965	999	1,035	1,071	1,109	1,148	1,189
6.1	832	861	891	922	955	988	1,023	1,058	1,095	1,134	1,173	1,214
6.2	853	882	913	945	977	1,011	1,046	1,083	1,120	1,159	1,199	1,241
6.3	874	904	935	967	1,001	1,035	1,071	1,107	1,145	1,185	1,226	1,268
6.4	896	927	958	991	1,025	1,059	1,096	1,133	1,171	1,211	1,253	1,295
6.5	919	950	982	1,015	1,049	1,084	1,121	1,159	1,198	1,238	1,280	1,323
6.6	942	973	1,006	1,039	1,074	1,110	1,147	1,185	1,225	1,266	1,308	1,352
6.7	965	997	1,030	1,065	1,100	1,136	1,174	1,213	1,253	1,294	1,337	1,381
6.8	990	1,022	1,056	1,090	1,126	1,163	1,201	1,241	1,281	1,323	1,367	1,411
6.9	1,015	1,048	1,082	1,117	1,153	1,190	1,229	1,269	1,310	1,353	1,397	1,442
7.0	1,040	1,074	1,108	1,144	1,181	1,219	1,258	1,298	1,340	1,383	1,427	1,473
7.1	1,066	1,100	1,135	1,171	1,209	1,247	1,287	1,328	1,370	1,414	1,459	1,505
7.2	1,093	1,128	1,163	1,200	1,238	1,277	1,317	1,358	1,401	1,445	1,491	1,538
7.3	1,121	1,156	1,192	1,229	1,267	1,307	1,348	1,390	1,433	1,478	1,524	1,571
7.4	1,149	1,184	1,221	1,259	1,297	1,338	1,379	1,421	1,465	1,511	1,557	1,605
7.5	1,178	1,214	1,251	1,289	1,328	1,369	1,411	1,454	1,499	1,544	1,592	1,640
7.6	1,207	1,244	1,281	1,320	1,360	1,401	1,444	1,487	1,533	1,579	1,627	1,676
7.7	1,238	1,275	1,313	1,352	1,393	1,434	1,477	1,522	1,567	1,614	1,663	1,712
7.8	1,269	1,306	1,345	1,385	1,426	1,468	1,512	1,557	1,603	1,650	1,699	1,749
7.9	1,301	1,339	1,378	1,418	1,460	1,503	1,547	1,592	1,639	1,687	1,737	1,787
8.0	1,333	1,372	1,412	1,453	1,495	1,538	1,583	1,629	1,676	1,725	1,775	1,826
8.1	1,367	1,406	1,446	1,488	1,531	1,575	1,620	1,666	1,714	1,763	1,814	1,866
8.2	1,401	1,441	1,482	1,524	1,567	1,612	1,657	1,704	1,753	1,803	1,854	1,906
8.3	1,436	1,477	1,518	1,561	1,605	1,650	1,696	1,744	1,793	1,843	1,895	1,948
8.4	1,473	1,513	1,555	1,599	1,643	1,689	1,735	1,784	1,833	1,884	1,936	1,990
8.5	1,510	1,551	1,594	1,637	1,682	1,728	1,776	1,825	1,875	1,926	1,979	2,033
8.6	1,548	1,589	1,633	1,677	1,722	1,769	1,817	1,866	1,917	1,969	2,022	2,077
8.7	1,586	1,629	1,673	1,717	1,764	1,811	1,859	1,909	1,960	2,013	2,067	2,122
8.8	1,626	1,669	1,714	1,759	1,806	1,854	1,903	1,953	2,005	2,058	2,113	2,169
8.9	1,667	1,711	1,756	1,802	1,849	1,897	1,947	1,998	2,050	2,104	2,159	2,216
9.0	1,709	1,753	1,799	1,845	1,893	1,942	1,992	2,044	2,097	2,151	2,207	2,264
9.1	1,752	1,797	1,843	1,890	1,938	1,988	2,039	2,091	2,144	2,199	2,255	2,313
9.2	1,796	1,841	1,888	1,936	1,984	2,035	2,086	2,139	2,193	2,248	2,305	2,363
9.3	1,841	1,887	1,934	1,982	2,032	2,083	2,135	2,188	2,242	2,298	2,356	2,414
9.4	1,887	1,934	1,982	2,030	2,080	2,132	2,184	2,238	2,293	2,350	2,407	2,467
9.5	1,935	1,982	2,030	2,080	2,130	2,182	2,235	2,289	2,345	2,402	2,460	2,520
9.6	1,984	2,031	2,080	2,130	2,181	2,233	2,287	2,342	2,398	2,456	2,515	2,575
9.7	2,033	2,082	2,131	2,181	2,233	2,286	2,340	2,396	2,452	2,510	2,570	2,631
9.8	2,085	2,133	2,183	2,234	2,286	2,340	2,395	2,451	2,508	2,567	2,627	2,688
9.9	2,137	2,186	2,237	2,288	2,341	2,395	2,450	2,507	2,565	2,624	2,684	2,746
10.0	2,191	2,241	2,292	2,344	2,397	2,452	2,507	2,564	2,623	2,682	2,743	2,806

(Continued)

A-5. (Continued)

Biparietal Diameters	Abdominal Circumferences												
	28.0	28.5	29.0	29.5	30.0	30.5	31.0	31.5	32.0	32.5	33.0	33.5	34.0
3.1	666	696	726	759	793	828	865	903	943	985	1,029	1,075	1,123
3.2	680	710	742	774	809	844	882	921	961	1,004	1,048	1,094	1,143
3.3	695	725	757	790	825	861	899	938	979	1,022	1,067	1,114	1,163
3.4	710	740	773	806	841	878	916	956	998	1,041	1,087	1,134	1,183
3.5	725	756	789	823	858	896	934	975	1,017	1,061	1,107	1,154	1,204
3.6	740	772	805	840	876	913	953	993	1,036	1,080	1,127	1,175	1,226
3.7	756	788	822	857	893	931	971	1,012	1,056	1,101	1,147	1,196	1,247
3.8	772	805	839	874	911	950	990	1,032	1,076	1,121	1,168	1,218	1,269
3.9	789	822	856	892	930	969	1,009	1,052	1,096	1,142	1,190	1,240	1,292
4.0	806	839	874	911	949	988	1,029	1,072	1,117	1,163	1,212	1,262	1,315
4.1	828	857	892	929	968	1,008	1,049	1,093	1,138	1,185	1,234	1,285	1,338
4.2	841	875	911	948	987	1,028	1,070	1,114	1,159	1,207	1,256	1,308	1,361
4.3	859	893	930	968	1,007	1,048	1,091	1,135	1,181	1,229	1,279	1,331	1,385
4.4	877	912	949	987	1,027	1,069	1,112	1,157	1,204	1,252	1,303	1,355	1,410
4.5	896	932	969	1,008	1,048	1,090	1,134	1,179	1,226	1,275	1,326	1,380	1,435
4.6	915	951	989	1,028	1,069	1,112	1,156	1,202	1,249	1,299	1,351	1,404	1,460
4.7	934	971	1,010	1,049	1,091	1,134	1,178	1,225	1,273	1,323	1,375	1,430	1,486
4.8	954	992	1,031	1,071	1,113	1,156	1,201	1,248	1,297	1,348	1,401	1,455	1,512
4.9	975	1,013	1,052	1,093	1,135	1,179	1,225	1,272	1,322	1,373	1,426	1,482	1,539
5.0	996	1,034	1,074	1,115	1,158	1,203	1,249	1,297	1,347	1,399	1,452	1,508	1,566
5.1	1,017	1,056	1,096	1,138	1,181	1,226	1,273	1,322	1,372	1,425	1,479	1,535	1,594
5.2	1,039	1,078	1,119	1,161	1,205	1,251	1,298	1,347	1,398	1,451	1,506	1,563	1,622
5.3	1,061	1,101	1,142	1,185	1,229	1,276	1,323	1,373	1,425	1,478	1,533	1,591	1,651
5.4	1,084	1,124	1,166	1,209	1,254	1,301	1,349	1,399	1,452	1,506	1,562	1,620	1,680
5.5	1,107	1,148	1,190	1,234	1,279	1,327	1,376	1,426	1,479	1,534	1,590	1,649	1,710
5.6	1,131	1,172	1,215	1,259	1,305	1,353	1,402	1,454	1,507	1,562	1,619	1,678	1,740
5.7	1,155	1,197	1,240	1,285	1,332	1,380	1,430	1,482	1,535	1,591	1,649	1,709	1,770
5.8	1,180	1,222	1,266	1,311	1,358	1,407	1,458	1,510	1,564	1,621	1,679	1,739	1,802
5.9	1,205	1,248	1,292	1,338	1,386	1,435	1,486	1,539	1,594	1,651	1,710	1,770	1,834
6.0	1,231	1,274	1,319	1,366	1,414	1,464	1,515	1,569	1,624	1,682	1,741	1,802	1,866
6.1	1,257	1,301	1,346	1,393	1,442	1,493	1,545	1,599	1,655	1,713	1,773	1,835	1,899
6.2	1,284	1,328	1,374	1,422	1,471	1,522	1,575	1,630	1,686	1,745	1,805	1,868	1,932
6.3	1,311	1,356	1,403	1,451	1,501	1,552	1,606	1,661	1,718	1,777	1,838	1,901	1,967
6.4	1,339	1,385	1,432	1,481	1,531	1,583	1,637	1,693	1,751	1,810	1,872	1,935	2,001
6.5	1,368	1,414	1,462	1,511	1,562	1,615	1,669	1,725	1,784	1,844	1,906	1,970	2,037
6.6	1,397	1,444	1,492	1,542	1,594	1,647	1,702	1,759	1,817	1,878	1,941	2,006	2,073
6.7	1,427	1,474	1,523	1,574	1,626	1,679	1,735	1,792	1,852	1,913	1,976	2,042	2,109
6.8	1,458	1,505	1,555	1,606	1,658	1,713	1,769	1,827	1,887	1,949	2,012	2,078	2,147
6.9	1,489	1,537	1,587	1,639	1,692	1,747	1,803	1,862	1,922	1,985	2,049	2,116	2,184
7.0	1,521	1,570	1,620	1,672	1,726	1,781	1,839	1,898	1,959	2,022	2,087	2,154	2,223
7.1	1,553	1,603	1,654	1,706	1,761	1,817	1,875	1,934	1,996	2,059	2,125	2,193	2,262
7.2	1,586	1,636	1,688	1,741	1,796	1,853	1,911	1,971	2,044	2,098	2,164	2,232	2,302
7.3	1,620	1,671	1,723	1,777	1,832	1,890	1,948	2,009	2,072	2,137	2,203	2,272	2,343
7.4	1,655	1,706	1,759	1,813	1,869	1,927	1,987	2,048	2,111	2,176	2,244	2,313	2,384
7.5	1,690	1,742	1,795	1,850	1,907	1,965	2,025	2,087	2,151	2,217	2,285	2,354	2,426
7.6	1,727	1,779	1,833	1,888	1,945	2,004	2,065	2,127	2,192	2,258	2,326	2,397	2,469
7.7	1,764	1,816	1,871	1,927	1,985	2,044	2,105	2,168	2,233	2,300	2,369	2,440	2,513
7.8	1,801	1,855	1,910	1,966	2,025	2,085	2,146	2,210	2,275	2,343	2,412	2,484	2,557
7.9	1,840	1,894	1,949	2,006	2,065	2,126	2,188	2,252	2,318	2,386	2,456	2,528	2,603
8.0	1,879	1,934	1,990	2,048	2,107	2,168	2,231	2,296	2,362	2,431	2,501	2,574	2,649
8.1	1,919	1,975	2,031	2,089	2,149	2,211	2,275	2,340	2,407	2,476	2,547	2,620	2,695
8.2	1,960	2,016	2,073	2,132	2,193	2,255	2,319	2,385	2,462	2,522	2,594	2,667	2,743
8.3	2,002	2,059	2,116	2,176	2,237	2,300	2,364	2,431	2,499	2,569	2,641	2,715	2,791
8.4	2,045	2,102	2,160	2,220	2,282	2,345	2,410	2,477	2,546	2,617	2,689	2,764	2,841
8.5	2,089	2,146	2,205	2,266	2,328	2,392	2,457	2,525	2,594	2,665	2,739	2,814	2,891
8.6	2,134	2,192	2,251	2,312	2,375	2,439	2,505	2,573	2,643	2,715	2,789	2,864	2,942
8.7	2,179	2,238	2,298	2,359	2,423	2,488	2,554	2,623	2,693	2,765	2,840	2,916	2,994
8.8	2,226	2,285	2,346	2,408	2,472	2,537	2,604	2,673	2,744	2,817	2,892	2,968	3,047
8.9	2,274	2,333	2,394	2,457	2,521	2,587	2,655	2,725	2,796	2,869	2,944	3,021	3,101
9.0	2,322	2,382	2,444	2,507	2,572	2,639	2,707	2,777	2,849	2,923	2,998	3,076	3,155
9.1	2,372	2,433	2,495	2,559	2,624	2,691	2,760	2,830	2,903	2,977	3,053	3,131	3,211
9.2	2,423	2,484	2,547	2,611	2,677	2,744	2,814	2,885	2,958	3,032	3,109	3,187	3,268
9.3	2,475	2,536	2,599	2,664	2,731	2,799	2,869	2,940	3,014	3,089	3,166	3,245	3,326
9.4	2,527	2,590	2,653	2,719	2,786	2,854	2,925	2,997	3,070	3,146	3,224	3,303	3,384
9.5	2,582	2,644	2,709	2,774	2,842	2,911	2,982	3,054	3,129	3,205	3,283	3,362	3,444
9.6	2,637	2,700	2,765	2,831	2,899	2,969	3,040	3,113	3,188	3,264	3,343	3,423	3,505
9.7	2,693	2,757	2,822	2,889	2,958	3,028	3,099	3,173	3,248	3,325	3,404	3,484	3,567
9.8	2,751	2,815	2,881	2,948	3,017	3,088	3,160	3,234	3,309	3,387	3,466	3,547	3,630
9.9	2,810	2,874	2,941	3,009	3,078	3,149	3,222	3,296	3,372	3,450	3,529	3,611	3,694
10.0	2,870	2,935	3,002	3,070	3,140	3,211	3,285	3,359	3,436	3,514	3,594	3,676	3,759

A-5. (Continued)

Biparietal Diameters	Abdominal Circumferences											
	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	1,518	1,579	1,641	1,706	1,774	1,845	1,918	1,994	2,073	2,156	2,241	2,330
4.7	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	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	1,599	1,661	1,725	1,792	1,861	1,934	2,009	2,086	2,167	2,251	2,339	2,429
5.0	1,626	1,689	1,754	1,821	1,891	1,964	2,040	2,118	2,200	2,284	2,372	2,463
5.1	1,655	1,718	1,783	1,851	1,922	1,995	2,071	2,150	2,232	2,317	2,406	2,498
5.2	1,683	1,747	1,813	1,882	1,953	2,027	2,103	2,183	2,266	2,351	2,440	2,532
5.3	1,713	1,777	1,843	1,913	1,984	2,059	2,136	2,216	2,299	2,386	2,475	2,568
5.4	1,742	1,807	1,874	1,944	2,016	2,091	2,169	2,250	2,333	2,420	2,510	2,604
5.5	1,773	1,838	1,906	1,976	2,049	2,124	2,203	2,284	2,368	2,456	2,546	2,640
5.6	1,803	1,869	1,938	2,008	2,082	2,158	2,237	2,319	2,403	2,491	2,582	2,677
5.7	1,835	1,901	1,970	2,041	2,115	2,192	2,272	2,354	2,439	2,528	2,619	2,714
5.8	1,866	1,934	2,003	2,075	2,150	2,227	2,307	2,390	2,475	2,564	2,657	2,752
5.9	1,899	1,966	2,037	2,109	2,184	2,262	2,342	2,426	2,512	2,602	2,694	2,790
6.0	1,932	2,000	2,071	2,144	2,219	2,298	2,379	2,463	2,550	2,640	2,733	2,829
6.1	1,965	2,034	2,105	2,179	2,255	2,334	2,416	2,500	2,588	2,678	2,772	2,869
6.2	1,999	2,069	2,140	2,215	2,291	2,371	2,453	2,538	2,626	2,717	2,811	2,909
6.3	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	2,069	2,140	2,213	2,288	2,366	2,446	2,530	2,616	2,705	2,797	2,892	2,991
6.5	2,105	2,176	2,250	2,326	2,404	2,485	2,569	2,656	2,745	2,838	2,933	3,032
6.6	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	2,821	2,901	2,983	3,068	3,155	3,244	3,336	3,431	3,529	3,629	3,732	3,838
8.3	2,870	2,950	3,033	3,118	3,206	3,296	3,388	3,483	3,581	3,682	3,785	3,891
8.4	2,920	3,001	3,084	3,169	3,257	3,348	3,441	3,536	3,634	3,735	3,839	3,945
8.5	2,970	3,052	3,135	3,221	3,310	3,401	3,494	3,590	3,688	3,790	3,894	4,000
8.6	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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) = $-1.7492 + 0.166(\text{BPD}) + 0.046(\text{AC}) - 2.646(\text{AC} + \text{BPD})/1000$
SD = ± 106.0 g/kg of birth weight.

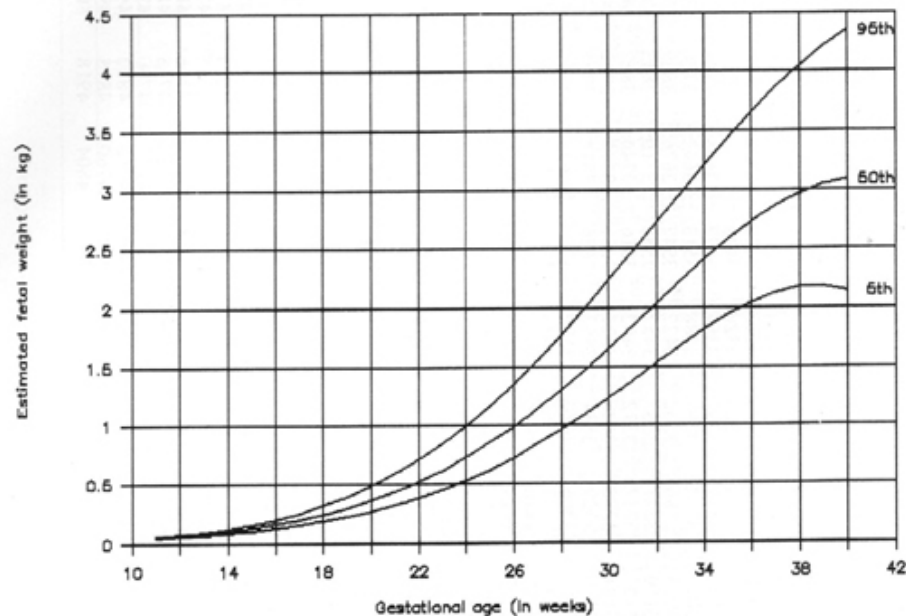
A-6. ESTIMATES OF FETAL WEIGHT (IN GRAMS) BASED ON ABDOMINAL CIRCUMFERENCE (AC) AND FEMUR LENGTH (FL)

FL (cm)	AC (cm)																				
	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	28.5	29.0	29.5	30.0
4.0	663	691	720	751	783	816	851	887	925	964	1006	1048	1093	1139	1188	1239	1291	1346	1403	1463	1525
4.1	680	709	738	769	802	836	871	907	946	986	1027	1070	1115	1162	1211	1262	1315	1371	1429	1489	1551
4.2	697	726	757	788	821	855	891	928	967	1007	1049	1093	1138	1186	1235	1287	1340	1396	1454	1515	1578
4.3	715	745	776	808	841	875	912	949	988	1029	1071	1116	1162	1209	1259	1311	1365	1422	1480	1541	1605
4.4	734	764	795	827	861	896	933	971	1010	1051	1094	1139	1185	1234	1284	1336	1391	1448	1507	1568	1632
4.5	753	783	815	847	882	917	954	993	1033	1074	1118	1163	1210	1259	1309	1362	1417	1474	1534	1596	1660
4.6	772	803	835	868	903	939	976	1015	1056	1098	1142	1187	1235	1284	1335	1388	1444	1501	1561	1623	1688
4.7	792	823	856	889	924	961	999	1038	1079	1122	1166	1212	1260	1310	1361	1415	1471	1529	1589	1652	1717
4.8	812	844	877	911	947	984	1022	1062	1103	1146	1191	1237	1286	1336	1388	1442	1498	1557	1618	1681	1746
4.9	833	865	899	933	969	1007	1046	1086	1128	1171	1216	1263	1312	1363	1415	1470	1527	1585	1647	1710	1776
5.0	855	887	921	956	993	1031	1070	1111	1153	1197	1243	1290	1339	1390	1443	1498	1555	1615	1676	1740	1806
5.1	877	910	944	980	1016	1055	1095	1136	1179	1223	1269	1317	1367	1418	1471	1527	1584	1644	1706	1770	1837
5.2	899	933	967	1004	1041	1080	1120	1162	1205	1250	1296	1344	1395	1447	1500	1556	1614	1674	1737	1801	1868
5.3	922	956	992	1028	1066	1105	1146	1188	1232	1277	1324	1373	1423	1476	1530	1586	1645	1705	1768	1833	1900
5.4	946	981	1016	1053	1091	1131	1172	1215	1259	1305	1352	1401	1452	1505	1560	1617	1675	1736	1799	1865	1933
5.5	971	1005	1041	1079	1118	1158	1199	1242	1287	1333	1381	1431	1482	1535	1591	1648	1707	1768	1832	1897	1966
5.6	995	1031	1067	1105	1144	1185	1227	1271	1316	1362	1411	1461	1513	1566	1622	1679	1739	1801	1864	1931	1999
5.7	1021	1057	1094	1132	1172	1213	1255	1299	1345	1392	1441	1491	1544	1598	1654	1712	1772	1834	1898	1964	2033
5.8	1047	1084	1121	1160	1200	1242	1285	1329	1375	1422	1472	1523	1575	1630	1686	1744	1805	1867	1932	1999	2068
5.9	1074	1111	1149	1188	1229	1271	1314	1359	1406	1454	1503	1555	1608	1663	1719	1778	1839	1902	1966	2034	2103
6.0	1102	1139	1178	1217	1258	1301	1345	1390	1437	1485	1535	1587	1641	1696	1753	1812	1873	1936	2002	2069	2139
6.1	1130	1168	1207	1247	1289	1331	1376	1421	1469	1518	1568	1620	1674	1730	1788	1847	1908	1972	2038	2105	2175
6.2	1160	1198	1237	1278	1319	1363	1408	1454	1501	1551	1602	1654	1709	1765	1823	1882	1944	2008	2074	2142	2212
6.3	1189	1228	1268	1309	1351	1395	1440	1487	1535	1585	1636	1689	1744	1800	1858	1919	1981	2045	2111	2180	2250
6.4	1220	1259	1299	1341	1384	1428	1473	1520	1569	1619	1671	1724	1779	1836	1895	1956	2018	2082	2149	2218	2289
6.5	1251	1291	1332	1373	1417	1461	1507	1555	1604	1655	1707	1760	1816	1873	1932	1993	2056	2121	2188	2256	2328
6.6	1284	1324	1365	1407	1451	1496	1542	1590	1640	1691	1743	1797	1853	1911	1970	2031	2094	2160	2227	2296	2367
6.7	1317	1357	1399	1441	1486	1531	1578	1626	1676	1728	1780	1835	1891	1949	2009	2070	2134	2199	2267	2336	2408
6.8	1351	1391	1433	1477	1521	1567	1615	1663	1713	1765	1819	1873	1930	1988	2048	2110	2174	2240	2307	2377	2449
6.9	1385	1427	1469	1513	1558	1604	1652	1701	1752	1804	1857	1913	1970	2028	2089	2151	2215	2281	2348	2418	2490
7.0	1421	1463	1506	1550	1595	1642	1690	1740	1791	1843	1897	1953	2010	2069	2130	2192	2256	2322	2391	2461	2533
7.1	1458	1500	1543	1588	1633	1681	1729	1779	1830	1883	1938	1994	2051	2110	2171	2234	2299	2365	2433	2504	2576
7.2	1495	1538	1581	1626	1673	1720	1769	1819	1871	1924	1979	2035	2093	2153	2214	2277	2342	2408	2477	2547	2620
7.3	1534	1577	1621	1666	1713	1761	1810	1861	1913	1966	2021	2078	2136	2196	2258	2321	2386	2453	2521	2592	2665
7.4	1573	1616	1661	1707	1754	1802	1852	1903	1955	2009	2065	2122	2180	2240	2302	2365	2431	2498	2566	2637	2710
7.5	1614	1657	1702	1749	1796	1845	1895	1946	1999	2053	2109	2166	2225	2285	2347	2411	2476	2543	2612	2683	2756
7.6	1655	1699	1745	1791	1839	1888	1939	1990	2043	2098	2154	2211	2270	2331	2393	2457	2523	2590	2659	2730	2803
7.7	1698	1742	1788	1835	1883	1933	1983	2035	2089	2144	2200	2258	2317	2378	2440	2504	2570	2638	2707	2778	2851
7.8	1741	1786	1833	1880	1928	1978	2029	2082	2135	2191	2247	2305	2365	2426	2488	2553	2618	2686	2755	2827	2899
7.9	1786	1832	1878	1926	1975	2025	2076	2129	2183	2238	2295	2353	2413	2474	2537	2602	2668	2735	2805	2876	2949
8.0	1832	1878	1925	1973	2022	2073	2124	2177	2232	2287	2344	2403	2463	2524	2587	2652	2718	2785	2855	2926	2999
8.1	1879	1926	1973	2021	2071	2121	2173	2227	2281	2337	2394	2453	2513	2575	2638	2702	2767	2837	2906	2977	3050
8.2	1928	1974	2022	2070	2120	2171	2224	2277	2332	2388	2446	2504	2565	2626	2690	2754	2821	2889	2958	3029	3102
8.3	1978	2024	2072	2121	2171	2223	2275	2329	2384	2440	2498	2557	2617	2679	2743	2807	2874	2942	3011	3082	3155

A-6. (Continued)

FL (cm)	AC (cm)																			
	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
4.0	1590	1658	1729	1802	1879	1959	2042	2129	2220	2314	2413	2515	2622	2734	2850	2972	3098	3230	3367	3511
4.1	1617	1685	1756	1830	1907	1987	2071	2158	2249	2344	2443	2545	2652	2764	2880	3002	3128	3260	3397	3540
4.2	1644	1712	1783	1858	1935	2016	2100	2187	2279	2373	2472	2575	2683	2794	2911	3032	3159	3290	3427	3570
4.3	1671	1740	1812	1886	1964	2045	2129	2217	2308	2404	2503	2606	2713	2825	2942	3063	3189	3320	3458	3600
4.4	1699	1768	1840	1915	1993	2075	2159	2247	2339	2434	2533	2637	2744	2856	2973	3094	3220	3352	3488	3630
4.5	1727	1797	1869	1944	2023	2105	2189	2278	2370	2465	2565	2668	2776	2888	3004	3125	3251	3383	3519	3661
4.6	1756	1826	1898	1974	2053	2135	2220	2309	2401	2497	2596	2700	2807	2919	3036	3157	3283	3414	3550	3692
4.7	1785	1855	1928	2004	2084	2166	2251	2340	2432	2528	2628	2732	2840	2952	3068	3189	3315	3446	3582	3723
4.8	1814	1885	1959	2035	2115	2197	2283	2372	2464	2560	2660	2764	2872	2984	3100	3221	3347	3478	3613	3754
4.9	1845	1916	1990	2066	2146	2229	2315	2404	2497	2593	2693	2797	2905	3017	3133	3254	3380	3510	3645	3786
5.0	1875	1947	2021	2098	2178	2261	2347	2437	2530	2626	2726	2830	2938	3050	3166	3287	3412	3542	3677	3818
5.1	1906	1978	2053	2130	2210	2294	2380	2470	2563	2659	2760	2864	2972	3084	3200	3320	3445	3575	3710	3850
5.2	1938	2010	2085	2163	2243	2327	2413	2503	2597	2693	2794	2898	3006	3117	3234	3354	3479	3608	3743	3882
5.3	1970	2043	2118	2196	2277	2360	2447	2537	2631	2728	2828	2932	3040	3152	3268	3388	3513	3642	3776	3915
5.4	2003	2076	2151	2229	2311	2395	2482	2572	2665	2762	2863	2967	3075	3186	3302	3422	3547	3676	3810	

A-7. GROWTH OF ESTIMATED FETAL WEIGHT ALONG GESTATIONAL AGE



A-8. FETAL BIOMETRY NOMOGRAMS*

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