

SECOND TRIMESTER SERUM TESTING

Down Syndrome (DS) Risk Sample Calculations (Knight 98 parameters)

Age	Maternal Serum Result (MoM)				Second Trimester DS Risks 1:n (Term Risk)			
	AFP	uE3	hCG	DIA	LMP		US	
					Triple	Quad	Triple	Quad
25.5	0.50	0.60	0.70	0.60	3900 (5000)	6600 (8500)	2000 (2500)	3900 (5000)
25.5	0.50	0.60	0.70	3.40	3900 (5000)	300 (390)	2000 (2500)	96 (130)
25.5	0.50	1.90	0.70	3.40	3800 (4900)	25 (32)	8900 (12000)	36 (47)
25.5	0.60	0.50	0.70	0.60	2400 (3100)	3400 (4500)	1200 (1500)	2000 (2600)
25.5	0.60	0.50	0.70	2.90	2400 (3100)	500 (640)	1200 (1500)	170 (220)
25.5	0.60	0.50	2.30	0.60	40 (52)	380 (500)	21 (28)	110 (150)
25.5	0.60	1.30	0.70	2.90	7200 (9300)	240 (320)	11000 (14000)	260 (340)
25.5	0.60	1.30	2.30	2.90	210 (270)	21 (27)	210 (270)	25 (33)
25.5	1.80	0.60	0.70	0.60	2800 (3600)	3500 (4500)	4100 (5300)	5800 (7600)
25.5	1.80	0.60	0.70	3.40	2800 (3600)	1200 (1500)	4100 (5300)	810 (1100)
25.5	1.80	0.50	0.70	0.60	1400 (1800)	1400 (1800)	1800 (2400)	2200 (2900)
25.5	1.80	0.50	0.70	2.90	1400 (1800)	970 (1300)	1800 (2400)	700 (910)
25.5	1.80	0.50	2.30	2.90	510 (660)	270 (340)	500 (650)	290 (370)
35.5	0.50	0.60	0.70	3.40	1000 (1300)	79 (100)	520 (670)	25 (33)
35.5	0.50	1.90	0.70	0.60	1000 (1300)	5400 (7000)	2300 (3000)	11000 (14000)
35.5	0.60	0.50	0.70	0.60	620 (810)	910 (1200)	310 (410)	530 (680)
35.5	0.60	1.30	0.70	0.60	1900 (2400)	6900 (8900)	2900 (3800)	10000 (13000)
35.5	0.60	1.30	0.70	2.90	1900 (2400)	64 (84)	2900 (3800)	70 (91)
35.5	0.60	1.30	2.30	0.60	54 (70)	4200 (5400)	55 (72)	1500 (2000)
35.5	0.80	0.30	0.70	0.40	550 (710)	810 (1000)	370 (480)	590 (770)
35.5	0.80	1.20	5.10	3.70	62 (81)	10 (14)	44 (58)	8 (11)
35.5	1.80	0.60	3.80	3.40	310 (400)	150 (200)	220 (290)	120 (160)
35.5	1.80	1.30	2.30	2.90	2400 (3100)	920 (1200)	2700 (3500)	830 (1100)
35.5	1.80	1.90	0.70	3.40	4200 (5500)	240 (310)	13000 (17000)	320 (410)
35.5	4.10	0.30	0.70	3.70	350 (450)	230 (300)	490 (640)	140 (190)
35.5	4.10	0.30	5.10	3.70	200 (250)	110 (140)	150 (190)	88 (120)

Knight GJ, Palomaki GE, Neveux LM, Fodor KK, Haddow JE. hCG and the Free-B subunit as screening tests for Down's syndrome. Prenat Diagn 1998;18:235-245.

Haddow JE, Palomaki GE, Knight GJ, Foster DL, Neveux LM. Second trimester screening for Down's syndrome using maternal serum dimeric inhibin A. J Med Screen 1998 5:115-119.

Morris JK, Mutton DE, Alberman E. Revised estimates of the maternal age specific live birth prevalence of Down's syndrome. J Med Screen 2002; 9:2-6.

Knight '98 Parameters Ultrasound Dated

Second Trimester (weeks 15 through 20)

Marker	Unaffected		Down Syndrome		truncation limit
	log x	log sd	log x	log sd	
AFP (A)	0.0000	0.1471	-0.1467	0.1505	0.4-2.0
uE3 (E)	0.0000	0.1307	-0.1774	0.1543	0.5-2.0
hCG (H)	0.0000	0.2235	0.3049	0.2093	0.5-4.0
DIA (D)	0.0000	0.2034	0.3222	0.2320	0.5-3.5

Correlations

	UA	T21		UA	T21
A_E	0.2223	0.2562	E_H	-0.1400	-0.2434
A_H	0.1560	-0.1893	E_D	-0.1280	-0.0030
A_D	0.1860	-0.0140	H_D	0.4700	0.4740

LMP Dated

Second Trimester (weeks 15 through 20)

Marker	Unaffected		Down Syndrome		truncation limit
	log x	log sd	log x	log sd	
AFP (A)	0.0000	0.1527	-0.1467	0.1571	0.4-2.0
uE3 (E)	0.0000	0.1351	-0.1774	0.1666	0.5-2.0
hCG (H)	0.0000	0.2260	0.3049	0.2174	0.5-4.0
DIA (D)	0.0000	0.2095	0.3222	0.2340	0.5-3.5

Correlations

	UA	T21		UA	T21
A_E	0.3140	0.3668	E_H	-0.2147	-0.4156
A_H	0.0951	-0.3118	E_D	-0.0680	-0.0030
A_D	0.2300	-0.0140	H_D	0.4200	0.4740