

Down Syndrome Risk Sample Calculations

(Appropriate for use by laboratories using the 'Wald 88' parameters)

Decimal Maternal Age (years)	Maternal Serum Result (MoM)			Down Syndrome Risk (1:n)	
	AFP	UE3	hCG	Double Test	Triple Test
25.0	0.5	0.6	0.7	1900	1000
25.0	0.5	0.6	1.0	960	500
25.0	0.5	0.6	2.5	130	63
25.0	0.5	1.0	0.7	1900	2200
25.0	0.5	1.0	1.0	960	1300
25.0	0.5	1.0	2.5	130	270
25.0	0.5	1.4	0.7	1900	6800
25.0	0.5	1.4	1.0	960	4900
25.0	0.5	1.4	2.5	130	1700
25.0	1.0	0.6	0.7	7300	4000
25.0	1.0	0.6	1.0	3500	1700
25.0	1.0	0.6	2.5	380	170
25.0	1.0	1.0	0.7	7300	7500
25.0	1.0	1.0	1.0	3500	4000
25.0	1.0	1.0	2.5	380	620
25.0	1.0	1.4	0.7	7300	20000
25.0	1.0	1.4	1.0	3500	13000
25.0	1.0	1.4	2.5	380	3300
25.0	2.0	0.6	0.7	28000	16000
25.0	2.0	0.6	1.0	13000	6200
25.0	2.0	0.6	2.5	1100	440
25.0	2.0	1.0	0.7	28000	26000
25.0	2.0	1.0	1.0	13000	12000
25.0	2.0	1.0	2.5	1100	1400
25.0	2.0	1.4	0.7	28000	60000
25.0	2.0	1.4	1.0	13000	34000
25.0	2.0	1.4	2.5	1100	6600

Risks (to two significant digits) are based on the biochemical parameters from Wald NJ, *et al.*, *Br Med J*, 1988;**297**:883-7. The 'double' test refers to maternal age in combination with AFP and hCG measurements. The 'triple' test also include uE3 measurements. The age-associated risks are from Cuckle HS *et al.*, *Br J Obstet Gynecol* 1987;**94**:387-402.

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Decimal Maternal Age (years)	Maternal Serum Result (MoM)			Down Syndrome Risk (1:n)	
	AFP	UE3	hCG	Double Test	Triple Test
35.0	0.5	0.6	0.7	570	320
35.0	0.5	0.6	1.0	300	150
35.0	0.5	0.6	2.5	39	20
35.0	0.5	1.0	0.7	570	680
35.0	0.5	1.0	1.0	300	400
35.0	0.5	1.0	2.5	39	84
35.0	0.5	1.4	0.7	570	2100
35.0	0.5	1.4	1.0	300	1500
35.0	0.5	1.4	2.5	39	510
35.0	1.0	0.6	0.7	2300	1200
35.0	1.0	0.6	1.0	1100	540
35.0	1.0	0.6	2.5	120	52
35.0	1.0	1.0	0.7	2300	2300
35.0	1.0	1.0	1.0	1100	1200
35.0	1.0	1.0	2.5	120	190
35.0	1.0	1.4	0.7	2300	6200
35.0	1.0	1.4	1.0	1100	4000
35.0	1.0	1.4	2.5	120	1000
35.0	2.0	0.6	0.7	8800	4900
35.0	2.0	0.6	1.0	3900	1900
35.0	2.0	0.6	2.5	350	140
35.0	2.0	1.0	0.7	8800	8000
35.0	2.0	1.0	1.0	3900	3800
35.0	2.0	1.0	2.5	350	440
35.0	2.0	1.4	0.7	8800	19000
35.0	2.0	1.4	1.0	3900	11000
35.0	2.0	1.4	2.5	350	2000

Risks (to two significant digits) are based on the biochemical parameters from Wald NJ, *et al.*, *Br Med J*, 1988;**297**:883-7. The 'double' test refers to maternal age in combination with AFP and hCG measurements. The 'triple' test also include uE3 measurements. The age-associated risks are from Cuckle HS *et al.*, *Br J Obstet Gynecol* 1987;**94**:387-402.

Wald '88 Parameters**Ultrasound & 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	0.2024	-0.1427	0.2052	0.4-2.5
uE3 (E)	1.0000	0.2700	0.7300	0.2600	0.4-1.4
hCG (H)	0.0073	0.2342	0.3096	0.2588	none

Correlations

	UA	T21
A_E	0.13	0.14
A_H	0.05	0.14
E_H	-0.08	-0.25

** ue3 uses linear parameters in
Wald '88 parameter set