

Coagulation Reference Ranges

TEST (All sexes and age unless stated)	Reference Range	Source	Units
Prothrombin Time (adult)	10 – 12.5	L	seconds
APTT (adult)	26 – 36	L	seconds
APTT Ratio (Therapeutic range)	1.5 – 2.5	Lit	(ratio)
APTT Actin FS (adult)	22 - 28	L	seconds
Clauss Fibrinogen (adult)	1.9 – 4.5	L	g/L
D-Dimer (PE / VTE cut-off)	Age adjusted cut off	L	ng/mL
Lupus Inhibitor Screen	< 1.20	M	(ratio)
Factor II (adult)	79 – 131	M	IU/dL
Factor V (adult)	62 – 139	M	IU/dL
Factor VII (adult)	50 – 129	M	IU/dL
Factor VIII (adult)	50 – 150	M/L	IU/dL
Factor VIII Inhibitors	< 0.6	Lit	NBU/mL
Factor IX (adult)	65- 150	M/L	IU/dL
Factor X (adult)	77 – 131	M	IU/dL
Factor XI (adult)	65 – 150	M	IU/dL
Factor XII (adult)	50 – 150	M	IU/dL
Antithrombin Activity (adult)	80 – 130	M/L	IU/dL
Protein C Activity (adult)	70 – 140	M/L	IU/dL
Protein S Free (adult Male)	75 – 145	M/L	IU/dL
Protein S Free (adult Female)	55 – 125	M/L	IU/dL
Thrombin Time	12 – 16.5	M/L	seconds
vWF Activity (vWF:GP1b)	50 - 240	Lit	IU/dL
vWF Antigen (vWF:Ag)	50 - 240	Lit	IU/dL
vWF Collagen Binding Assay (vWF:CBA)	50 - 240	Lit	IU/dL

Reference Range Sources: **M**: Manufacturer's quoted range; **L** Locally derived range; **Lit** Literature; **M/L** Manufacturers range confirmed / amended following local verification

D-Dimer age adjusted PE / VTE cut-off

The age adjusted D-dimer is calculated using 5 x patient's age, with a reported cutoff for 5 yearly intervals calculated using the median age.

Age	Age adjusted D-dimer (ng/mL)
≤ 50	250
51 – 55	265
56 – 60	290
61 – 65	315
66 – 70	340
71 – 75	365
76 – 80	390
81 – 85	415
86 – 90	440
91 – 95	465
95 – 100	490
101 – 105	515
106 - 110	540

Paediatric Coagulation Reference Ranges

TEST	AGE					
	< 4 weeks	1-5 months	6-11 months	1-5 years	6-10 years	11-17 years
PT (sec)	9.5 - 12.6	9.7 - 12.8	9.8 - 13.0	9.9 - 13.4	10 - 14.6	10 - 14.1
APTT (sec)	27.6 - 45.6	24.8 - 40.7	25.1 - 40.7	24.0 - 39.2	26.9 - 38.7	24.6 - 38.4
Fibrinogen QFA (g/L)	1.36 - 3.00	1.41 - 4.37	1.41 - 4.37	1.64 - 4.97	1.71 - 5.37	1.68 - 5.29
Factor II (IU/mL)	44.8 - 74.3	46.7 - 110.6	73.9 - 117.2	49.4 - 130.0	68.4 - 132.0	75.2 - 132.0
Factor V (IU/mL)	69.0 - 123.7	59.5 - 147.0	59.0 - 159.8	73.2 - 188.1	82.0 - 140.6	60.7 - 141.6
Factor VII (IU/mL)	55.0 - 108.0	43.0 - 141.1	55.2 - 128.0	47.8 - 124.2	55.0 - 135.4	59.0 - 151.0
Factor VIII (IU/mL)	65.2 - 153.4	50.3 - 187.3	53.4 - 132.2	59.0 - 167.0	60.6 - 154.4	56.0 - 145.9
Factor IX (IU/mL)	30.0 - 77.0	29.0 - 105.1	50.5 - 106.8	52.6 - 128.9	55.3 - 156.0	69.5 - 131.0
Factor X (IU/mL)	66.0 - 92.0	67.5 - 122.2	75.8 - 134.4	59.7 - 152.8	71.3 - 161.5	72.8 - 150.4
Factor XI (IU/mL)	32.9 - 75.0	27.6 - 126.4	60.9 - 125.6	58.0 - 154.0	31.8 - 154.0	49.1 - 139.2
Factor XII (IU/mL)	25.0 - 81.0	38.0 - 136.6	48.0 - 156.1	50.0 - 174.7	49.4 - 153.5	46.5 - 157.3
Antithrombin (IU/mL)	32.8 - 62.8	29.0 - 120.0	63.0 - 121.8	60.5 - 128.3	64.2 - 136.4	69.1 - 135.9
Protein C (IU/mL)	27.2 - 48.0	22.8 - 95.0	46.6 - 150.9	59.1 - 147.5	45.9 - 153.5	72.3 - 155.1
Protein S (IU/mL)	61.0 - 108.0	48.0 - 126.5	63.0 - 138.9	53.0 - 134.9	61.5 - 141.7	61.4 - 130.7

Paediatric Reference Range Source: **Lit** Literature: Toulon P, Berruyer B and Brionne-Francois M, et al. Age dependency for coagulation parameters in paediatric populations. *Thrombosis and Haemostasis* 2016; 116: 9-16.