

Clinical Diagnostic Laboratory CBC Reference Intervals

PARAMETER	UNITS	DOG n=60	CAT n=59	HORSE n=59	FOAL n=75	CATTLE n=61	SHEEP n=54	GOAT n=62	ALPACA n=52	RABBIT
RBC	x10 ⁶ /μl	5.6-8.0	7.0-10.5	6.2-10.2	8.2-12.3	4.9-7.2	8.2-12.3	11.5-21.0	10.3-15.2	4.7-7.7
HGB	g/dl	14-19	10-16	11.2-17.2	11.5-17.1	8.4-12.2	9.0-14.0	8.2-12.4	10.6-16.5	11-16
HCT	%	40-55	30-50	30-46	30-46	23-33	25-38	23-36	22-40	30-48
MCV	fl	65-75	42-53	37-53	33-41	38-50	27-37	15-23	20-28	56-73
MCH	pg	22-26	13-17	14-20	13-15.5	14-18	10-13	5.5-8	8.8-17.7	20-24
MCHC	g/dl	33-36	30-33.5	36-39	35-40	36-39	33-38	32.5-38	40.2-47.2	32-37
RDW	%	11-14	14-18	17-20	18-20	16-20	16-22	21-28	31.5-34.9	11-15
RETICS	cells/μl	7000-65,000	7,000-60,000	0	0	rare	rare	rare	0-9,640	1-4%
WBC	cells/μl	6000-13,000	4,500-14,000	5,000-11,600	5300-14000	5,800-12,600	5,000-14,500	5,000-17,000	7,890-20,270	2,300-10,300
BAND NEUTROPHILS	cells/μl	rare	rare	rare	rare	rare	rare	rare		rare
NEUTROPHILS	cells/μl	3,000-10,500	2,000-9,000	2,600-6800	3400-11900	2,300-6,800	1,500-8,600	700-7,600	3,670-10,960	1,000-4,400
LYMPHOCYTES	cells/μl	1,000-4,000	1,000-7,000	1,600-5,800	700-2900	1,700-5,600	2,000-5,700	2,500-12,000	2,130-6,410	900-8,000
MONOCYTES	cells/μl	150-1,200	50-600	0-500	50-550	0-900	50-600	70-570	80-710	55-800
EOSINOPHILS	cells/μl	0-1,500	150-1,100	0-200	0-100	0-1,200	0-1,200	0-2,000	160-3,290	0-250
BASOPHILS	cells/μl	0-50	0-200	0-100	0-100	0-300	0-150	0-250	0-340	0-700
PLATELETS	x10 ³ /μl	150-400	180-500	100-225	134-310	233-690	260-1,000	340-900	299-775	126-785
MPV	fl	7-13	9-18	5.4-9.3	4.2-8.1	4.5-7.6	3.6-6.5	3.7-7.1	4.0-6.5	5.2-9.3
PDW	%	51-73	62-80	24-72		56-80	29-96	56-107		
PCT	%	0.15-0.39	0.14-0.62	0.07-0.21		0.15-0.40	0.13-0.42	0.16-0.36		
PLASMA PROTEINS	g/dl	6.0-8.0	6.8-8.3	5.8-8.7	4.4-7.0	6.5-8.5	6.0-7.5	6.0-7.5	5.3-7.0	6.0-9.0
FIBRINOGEN	mg/dl	200-400	<100-300	100-400	100-300	300-700	100-500	100-400	100-300	0-400

RDW = Red cell distribution width
 MPV = Mean platelet volume
 PDW = Platelet distribution width
 PCT = Platelet-crit

Reference values were established using adult animals (> 1 year).
 Foal reference values were established using animals < 24 hours old.
 Cats were FeLV negative.
 Cattle are adult dairy cows at mid-lactation and tested BLV negative.
 Alpaca age range 6mths-7yrs/male & female
 Rabbit ranges established 2013; rabbits >6 months