



Blood Work Comparison Report

Prepared for

Herman Munster

Most Recent Collection Date

11/04/2024

Analysis Date

11/12/2024

Red Blood Cell (RBC) Markers

Marker	Units	10/02/2022	12/08/2023	11/04/2024	Trend	Alarm Min	Lab Min	Optimal Min	Optimal Max	Lab Max	Alarm Max
RBC	m/mcL	4.65	4.54 ↓	4.58 ↓	👍	3.83	4.23	4.63	5.42	5.82	6.22
HGB	g/dL	13.6 ↓	12.5 ↓	12.55 ↓	👍	12.55	13.5	14.45	16.35	17.3	18.25
HCT	%	39 ↓	38.5 ↓	38 ↓	👎	35.75	38.8	41.85	47.95	51	54.05
MCV	fL	83.87 ↓	84.8 ↓	82.97 ↓	👎	77.18	81.2	85.23	93.27	97.3	101.33
MCH	pg	29.25	27.53 ↓	27.4 ↓	👎	25.38	27.1	28.83	32.28	34	35.73
MCHC	g/dL	34.87	32.47 ↓	33.03 ↓	👍	31.5	32.4	33.3	35.1	36	36.9
RDW	%	13	13.5 ↑	13.9 ↑	👎	10.68	11.3	0	13	13.8	14.43
CRC	%	1.39	1.71	1.95		0	0.5	1	2	2.5	3
RPI		1.39	1.71	1.95		0.25	0.5	1	2	3	5

Iron / Copper Markers

Marker	Units	10/02/2022	12/08/2023	11/04/2024	Trend	Alarm Min	Lab Min	Optimal Min	Optimal Max	Lab Max	Alarm Max
Iron	mcg/dL	90	80 ↓	69 ↓	👎	17.5	50	82.5	147.5	180	212.5
TIBC	mcg/dL	389 ↑	374	405 ↑	👎	206.25	250	293.75	381.25	425	468.75
% Saturation	%	23.1 ↓	21.4 ↓	17 ↓	👎	12.5	20	24	35	50	57.5
Ferritin	ng/mL	20 ↓	17 ↓	14 ↓	👎	7.5	15	25	75	200	246.25
Transferrin	mg/dL	375 ↑	361 ↑	386 ↑	👎	157.5	200	242.5	327.5	370	412.5
Ceruloplasmin	mg/dL	20	18	29 ↑	👎	12.25	16	16.1	27	31	34.75
Copper, RBC	µg/mL					0.38	0.5	0.51	0.99	1	1.13
Copper, RBC	µg/dL	50 ↓	48 ↓	50 ↓	👍	37.5	50	51	99	100	112.5
Copper, serum	µg/dL	45 ↓	60 ↓	90	👍	53.25	69	70	110	132	147.75
Copper, serum	mcg/mL					0.53	0.69	0.7	1.1	1.32	1.48
Free Copper	%	-33.33 ↓	10	3.33 ↓	👎	0	2.5	5	20	30	40

Immune System Markers

Marker	Units	10/02/2022	12/08/2023	11/04/2024	Trend	Alarm Min	Lab Min	Optimal Min	Optimal Max	Lab Max	Alarm Max
WBC	k/mcL	4.6	3 ↓	3.5 ↓	👍	1.68	3.11	4.54	7.4	8.83	10.26
Neutrophils	%	45	42 ↓	36 ↓	👎	26.9	35.3	43.7	60.5	68.9	77.3
Lymphocytes	%	43	46 ↑	49 ↑	👎	13.48	21.3	29.13	44.78	52.6	60.43
Monocytes	%	7	8	10 ↑	👎	1.81	3.53	5.25	8.68	10.4	12.12
Eosinophils	%	4	3.5	4		0	0.47	2.33	6.04	7.89	9.75
Basophils	%	1 ↑	0.5	1 ↑	👎	0	0	0	0.95	1.27	1.59
Abs Neutro	k/mcL	2.07 ↓	1.26 ↓	1.26 ↓		0.02	1.06	2.1	4.18	5.22	6.26
Abs Lympho	k/mcL	1.978	1.38 ↓	1.715	👍	0.32	0.94	1.56	2.8	3.42	4.04
Abs Mono	k/mcL	0.322	0.24 ↓	0.35	👍	0.05	0.17	0.29	0.53	0.65	0.77
Abs Eosino	k/mcL	0.184	0.105 ↓	0.14 ↓	👍	0	0.03	0.148	0.382	0.5	0.618
Abs Baso	k/mcL	0.046	0.015	0.035		0	0	0	0.056	0.075	0.094
NLR	Ratio	1.05 ↓	0.91 ↓	0.73 ↓	👎	0.5	1	1.5	2	2.5	3
Globulin	g/dL	2.5	2.3 ↓	2.5	👍	1.5	1.9	2.4	2.8	3.7	4.2
Alk Phos	U/L	25 ↓	67	65		13	36	60	107	130	154

Coagulation Markers

Marker	Units	10/02/2022	12/08/2023	11/04/2024	Trend	Alarm Min	Lab Min	Optimal Min	Optimal Max	Lab Max	Alarm Max
Platelets	k/mcL	300	245	250		137	179	221	307	349	392
MPV	fL	8 ↓	9	8.5		6.1	7.2	8.3	10.6	11.7	12.8
D-Dimer	mg/L FEU	0.6 ↑	0.2	0.4		0	0	0	0.48	0.49	1.5
Fibrinogen	mg/dL	342	350	325		150	175	200	350	400	450

Glucose Markers

Marker	Units	10/02/2022	12/08/2023	11/04/2024	Trend	Alarm Min	Lab Min	Optimal Min	Optimal Max	Lab Max	Alarm Max
Glucose	mg/dL	99 ↑	95 ↑	89 ↑	👍	62.75	70	82	88	99	125
HbA1c	%	6 ↑	5.6 ↑	5.8 ↑	👎	3.6	4	5	5.4	5.6	6.4
Insulin	μU/mL	6.8 ↑	7.1 ↑	3.7	👍	0	2.6	3	5	18.4	22.35
C-peptide	ng/mL	9 ↑	7 ↑	1.5	👍	0.6	0.8	0.9	1.8	3.85	4.61
Amylase	U/L	100 ↑	100 ↑	90 ↑	👍	11.3	31	40	86	110	129.8

Kidney Markers

Marker	Units	10/02/2022	12/08/2023	11/04/2024	Trend	Alarm Min	Lab Min	Optimal Min	Optimal Max	Lab Max	Alarm Max
BUN	mg/dL	20 ↑	17	15		7.5	10	12.5	17.5	20	22.5
Creatinine	mg/dL	1.5 ↑	1.1 ↑	1.24 ↑	👎	0.427	0.6	0.773	1.117	1.29	1.463
eGFR	mL/min/1.73m2	79 ↓	95	74 ↓	👎	30	60	90	120	180	210
eGFR AA	mL/min/1.73m2										
BUN/Creat Ratio	Ratio	13.33	15.45	12		2	6	10	18	22	26
Uric Acid	mg/dL	4	3.2 ↓	9 ↑	👎	2.88	3.7	3.8	5.5	7	8

Protein Markers

Marker	Units	10/02/2022	12/08/2023	11/04/2024	Trend	Alarm Min	Lab Min	Optimal Min	Optimal Max	Lab Max	Alarm Max
Protein, Total	g/dL	7	7.1	7.4		5.6	6.1	6.9	7.8	8.1	8.6
Albumin	g/dL	4.5	4.8	4.9		3.2	3.6	4.5	5	5.1	5.5
Globulin	g/dL	2.5	2.3 ↓	2.5	👍	1.5	1.9	2.4	2.8	3.7	4.2
A/G Ratio	Ratio	1.8	2.09 ↑	1.96 ↑	👍	0.95	1.2	1.45	1.95	2.2	2.45

Nutrient Markers

Marker	Units	10/02/2022	12/08/2023	11/04/2024	Trend	Alarm Min	Lab Min	Optimal Min	Optimal Max	Lab Max	Alarm Max
Calcium (Ca) corr	mg/dL	10 ↑	10.2 ↑	9.8	👍	8.2	8.6	9.3	9.8	10.3	10.7
Ceruloplasmin	mg/dL	20	18	29 ↑	👎	12.25	16	16.1	27	31	34.75
Copper, RBC	µg/mL					0.38	0.5	0.51	0.99	1	1.13
Copper, RBC	µg/dL	50 ↓	48 ↓	50 ↓	👍	37.5	50	51	99	100	112.5
Copper, serum	µg/dL	45 ↓	60 ↓	90	👍	53.25	69	70	110	132	147.75
Copper, serum	mcg/mL					0.53	0.69	0.7	1.1	1.32	1.48
Cu/Zn Ratio	Ratio	0.6 ↓	0.71 ↓	0.82	👍	0.5	0.7	0.8	1	1.5	1.7
Free Copper	%	-33.33 ↓	10	3.33 ↓	👎	0	2.5	5	20	30	40
Folate, RBC	ng/mL	750	800	701		280	400	499	1081	1504	2621
Folate, serum	ng/mL					9	13	17	25	29	33
Magnesium, RBC	mg/dL	5.2 ↓	5 ↓	4.5 ↓	👎	3.55	4.2	6	6.7	6.8	7.45
Magnesium, serum	mg/dL					1.25	1.5	2	2.3	2.5	2.75
Phosphorus	mg/dL	4.2 ↑	5 ↑	3	👍	2.1	2.5	2.9	3.5	4.1	4.5
Vitamin B6	µg/L	9 ↓				3.4	5.2	12.4	65	65.2	80.2
Vitamin B12	pg/mL	1003	1196 ↑	523	👍	149	300	400	1100	1245	1500
Vitamin D (25-OH)	ng/mL	45 ↓	37.8 ↓	31 ↓	👎	12.5	30	50	80	100	150
Vit D 1,25 (OH)2	pg/mL	30 ↓	60	27 ↓	👎	10.63	24.8	38.98	81	81.5	95.68
Zinc, RBC	µg/dL	1001 ↓	1100 ↓	1300	👍	757.5	900	1185	1469	1470	1612.5
Zinc, RBC	mg/L					7.58	9	11.85	14.69	14.7	16.13
Zinc, serum	µg/dL	75 ↓	84 ↓	110	👍	42.5	60	95	129	130	147.5
Zinc, serum	mcg/mL					0.43	0.6	0.95	1.29	1.3	1.48

Electrolyte Markers

Marker	Units	10/02/2022	12/08/2023	11/04/2024	Trend	Alarm Min	Lab Min	Optimal Min	Optimal Max	Lab Max	Alarm Max
Sodium	mmol/L	142	140	139		132	135	139	142	146	149
Potassium	mmol/L	4.8 ↑	4.4	4.5 ↑	🔴	3.1	3.5	4	4.4	5.2	5.6
Na/K Ratio	Ratio	29.6 ↓	31.8	30.9		25	27.5	30	35	37.5	40
Chloride	mmol/L	105	101	101		95	98	101	107	110	113
Carbon Dioxide	mmol/L	33 ↑	30 ↑	26	🟢	17	20	23	29	32	35
Anion Gap	mmol/L	4 ↓	9	12		0	3	6	12	15	18
Anion Gap w/ K	mmol/L	8.8 ↓	13.4	16.5 ↑	🔴	4	7	10	16	19	22

Lipids / Inflammation Markers

Marker	Units	10/02/2022	12/08/2023	11/04/2024	Trend	Alarm Min	Lab Min	Optimal Min	Optimal Max	Lab Max	Alarm Max
Cholesterol, Total	mg/dL	350 ↑	311 ↑	237	🟢	140	160	180	240	270	300
HDL Cholesterol	mg/dL	75	93 ↑	79 ↑	🟢	30	40	55	75	85	95
Triglycerides (TG)	mg/dL	220 ↑	167 ↑	51	🟢	15	25	50	100	150	199
LDL Cholesterol	mg/dL	225 ↑	198 ↑	150 ↑	🟢	30	55	80	130	159	190
Chol/HDL Ratio	Ratio	4.67 ↑	3.34 ↑	3	🟢	0	0	0	3	3.4	5
TG/HDL Ratio	Ratio	2.93 ↑	1.34	0.65		0	0	0	2	4	5
Apo A-1	mg/dL	155	145 ↓	155	🟢	71	101	150	210	240	270
Apo B	mg/dL	110 ↑	113 ↑	86 ↑	🟢	21	36	50	79	99	120
Apo B/Apo A-1	Ratio	0.71 ↑	0.78 ↑	0.55	🟢	0	0	0	0.59	0.76	0.95
Lipoprotein(a)	nmol/L	29 ↑	26 ↑	18 ↑	🟢	0	0	0	13	30	50
Homocysteine	µmol/L	12 ↑	10 ↑	12 ↑	🔴	0	2.5	5	7	11.3	14.5
hs-CRP	mg/L	2.6 ↑	3.5 ↑	2 ↑	🟢	0	0	0	0.9	3	10
Sed Rate (ESR)	mm/h	6 ↑	5	8 ↑	🔴	0	0	1	5	15	18.75

Liver / Biliary Markers

Marker	Units	10/02/2022	12/08/2023	11/04/2024	Trend	Alarm Min	Lab Min	Optimal Min	Optimal Max	Lab Max	Alarm Max
Bile Acids	μmol/L	10 ↑	6.5	5		1.25	3	4.75	8.25	10	19
Bilirubin, Total	mg/dL	1.2 ↑	1.1 ↑	1.5 ↑	🔴	0.1	0.3	0.65	0.8	1.7	2.05
Bilirubin, Direct	mg/dL	0.5 ↑	0.2	0.3 ↑	🔴	0	0	0	0.2	0.3	0.4
Bilirubin, Indirect	mg/dL	0.7	0.9 ↑	1.2 ↑	🔴	0	0.1	0.11	0.78	1	1.23
Alk Phos	U/L	25 ↓	67	65		13	36	60	107	130	154
AST (SGOT)	U/L	5 ↓	41 ↑	68 ↑	🔴	3	10	12	33	40	48
ALT (SGPT)	U/L	8 ↓	56 ↑	45 ↑	🟢	2	9	12	22	36	43
GGT	UL	16	17 ↑	15	🟢	0	3	5	16	25	65
LDH, LD	U/L	172	175	150		70	100	130	190	220	250

Thyroid Markers

Marker	Units	10/02/2022	12/08/2023	11/04/2024	Trend	Alarm Min	Lab Min	Optimal Min	Optimal Max	Lab Max	Alarm Max
TSH	μIU/mL	4.8 ↑	2.8 ↑	2.4 ↑	🟢	0.1	0.4	1	2	4.5	5.525
T4, Total	mcg/dL	8	7	8.2		3.5	4.9	6.3	10.4	10.5	11.9
T4, Free	ng/dL	2 ↑	1.13 ↓	1.25 ↓	🟢	0.55	0.8	1.3	1.7	1.8	2.05
T3, Total	ng/dL	130	120	140		49.75	76	100	180	181	207.25
T3, Free	pg/mL	4	3.18 ↓	3.5	🟢	1.4	2	3.2	4.3	4.4	5
Reverse T3	ng/dL	24	25 ↑	23	🟢	3.75	8	9	24	25	29.25
TPO Ab	IU/mL	8	8	7		0	0	0	8.8	8.9	11.13
Tg Ab	IU/mL	1 ↑	2 ↑	0.8	🟢	0	0	0	0.9	1	1.25
TBG	mcg/mL	20	25	20		9.15	13.5	17.85	26.55	30.9	35.25
T3 Uptake	%	36 ↑	34	32		20.25	24	27.75	35.25	39	42.75
FTI	Ratio	3	3	2.6		0.8	1.4	1.5	3.7	3.8	4.4

Hormone Markers

Marker	Units	10/02/2022	12/08/2023	11/04/2024	Trend	Alarm Min	Lab Min	Optimal Min	Optimal Max	Lab Max	Alarm Max
Menstrual Phase											
AMH	ng/mL					0.08	0.11	3.35	9.83	13.07	16.99
Cortisol, AM	mcg/dL	24 ↑	35 ↑	22 ↑	👍	2.8	4	13	21	22	26.5
Cortisol, PM	mcg/dL					2.1	3	10	16	17	20.5
DHEA-S	µg/dL	234 ↓	275	236 ↓	👎	71.82	102.6	259.45	416.2	416.3	541.19
DHT	ng/dL	42	40	52 ↑	👎	8.4	12	30	50	65	95.5
Estradiol (E2)	pg/mL	24	25	30 ↑	👎	5.32	7.6	7.7	25.1	42.6	55.38
Estriol (E3)	ng/mL					0	0	0.01	0.09	0.18	0.23
Estrogens, Total	pg/mL	82	80	125		39.2	56	57	134.5	213	276.9
Estrone (E1)	pg/mL					10.5	15	15.1	40	65	84.5
FSH	mIU/mL	6	5	9 ↑	👎	1.05	1.5	2	7	12.4	16.12
hCG	mIU/mL					0	0	0.1	4.8	4.9	6.37
IGF-1	ng/mL	189	205	238 ↑	👎	63	90	137	231	278	325
LH	mIU/mL	6	5	1.7 ↓	👎	1.19	1.7	1.8	8.5	8.6	11.18
Pregnenolone	ng/dL	258 ↑	235	175		15.4	22	113.8	236.9	237	308.1
Progesterone	ng/mL					0	0	0.25	0.49	0.5	0.65
17-OHP	ng/dL					29.4	42	119	195	196	254.8
Prolactin	ng/mL	24 ↑	25 ↑			1.4	2	2.1	17.9	18	23.4
Prolactin, Lact	ng/mL					35	50	51	109	110	143
SHBG	nmol/L	36	25	35		7	10	11	49	50	65

Testosterone Markers

Marker	Units	10/02/2022	12/08/2023	11/04/2024	Trend	Alarm Min	Lab Min	Optimal Min	Optimal Max	Lab Max	Alarm Max
BioT	ng/dL	359	350	450		77	110	342.5	574	575	747.5
BioT %	%	39	37	40		6.3	9	27.5	45	46	59.8
FreeT, Calc	pg/mL					50.4	72	148	223	224	291.2
FreeT, Direct	pg/mL	37 ↑	35 ↑			4.8	6.8	14.15	20.5	21.5	28
TotalT	ng/dL	650	600	750		184.8	264	590	915	916	1190.8
TotalT, LC/MS	ng/dL					184.8	264	590	915	916	1190.8