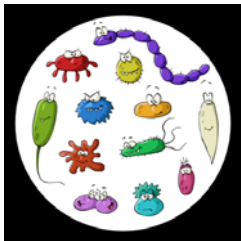


Immune System:
Bacterial Infection

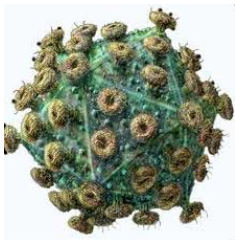
- ✓ **WBC** (high or low)
- ✓ **Neutrophil** (high)
- ✓ **Lymphocytes** (low)



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Immune System:
Viral Infection

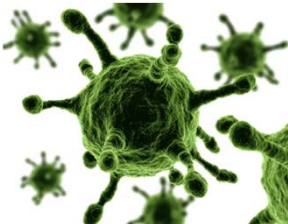
- ✓ **WBC** (high or low)
- ✓ **Neutrophil** (low)
- ✓ **Lymphocytes** (high)



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Immune System:
Viral Infection

- ✓ **Hematocrit** (lo)
- ✓ **WBC** (hi)
- ✓ **Eosinophil's** (hi)
- ✓ **Basophils** (hi)
- ✓ **Monocytes** (hi)
- ✓ **MCV** (hi)



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Other Immune System Markers

- ✓ **Uric Acid** (hi): RA, gout
- ✓ **Globulin** (lo): infections (low antibodies)
- ✓ **Globulin** (hi): autoimmune, allergy, chronic infection
- ✓ **Bilirubin** (hi): liver inflammation
- ✓ **Alkaline Phosphatase** (hi): shingles
- ✓ **LDH** (hi): inflammation, viral
- ✓ **AST** (hi): mono, EBV, CMV, hepatitis
- ✓ **Iron** (hi): viral
- ✓ **Cholesterol or LDL** (lo): autoimmune
- ✓ **HDL** (hi): autoimmune
- ✓ **Thyroid Antibodies** (hi): autoimmune
- ✓ **Other Autoimmune Antibodies**,
i.e. ANA, RA, intrinsic factor, etc.



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Inflammatory Markers

- CRP, CRP-hs: C Reactive Protein
- Erythrocyte Sedimentation rate (Sed rate) aka ESR
- Homocysteine
- Blood Spot Fatty Acid
- ANA: Anti-nuclear antibodies
- Rheumatoid factor (RF)
- Interleukins and cytokines (advanced testing)
- Cardiovascular advanced testing:
i.e. apolipoprotein B, A1, ratio



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CBC Immune System Case 1

CATEGORIES	Units	PATHOLOGICAL RANGE		FUNCTIONAL RANGE		CURRENT 1/14/10
		Min	Max	Min	Max	
CBC MARKERS						
WBC		4.0	10.5	5.0	8.0	4.5
Platelets	(K)	150.0	400.0	150.0	450.0	291
Neutrophils	%	40.0	78.0	40.0	60.0	32
Lymphs	%	15.0	50.0	25.0	40.0	43
Monocytes	%	0.0	13.0	0.0	7.0	7
Eos	%	0.0	5.0	0.0	3.0	18
Basos	%	0.0	5.0	0.0	1.0	0



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CBC Immune System Case 1

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Monocytes	%	0.0	13.0	0.0	7.0	7
Eos	%	0.0	5.0	0.0	3.0	18
Basos	%	0.0	5.0	0.0	1.0	0

- ❖ Allergies
- ❖ Parasites (correlates with metabolic assessment high score on colon)
- ❖ Chronic viral infection – History of EBV and Mono
- ❖ Action: Anti-parasitic herbs support immune system with herbs and foods that decrease viral load – oregano, thyme, garlic, oil of oregano, olive leaf extract, reishi mushroom, astragalus, echinacea, and berberine-containing herbs
- ❖ Testing follow-up: stool analysis for parasites



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CBC Immune System Case 2

WBC		4.0	10.5	5.0	8.0	3.3
Neutrophils	%	40.0	78.0	40.0	60.0	40
Lymphs	%	15.0	50.0	25.0	40.0	43
Monocytes	%	0.0	13.0	0.0	7.0	10
Eos	%	0.0	5.0	0.0	3.0	6
Basos	%	0.0	5.0	0.0	1.0	1
RBC (Female)	-	3.9	5.1	3.9	4.5	4.41
Platelets	(K)	150.0	400.0	150.0	450.0	200



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CBC Immune System Case 2

WBC		4.0	10.5	5.0	8.0	3.3
Neutrophils	%	40.0	78.0	40.0	60.0	40
Lymphs	%	15.0	50.0	25.0	40.0	43
Monocytes	%	0.0	13.0	0.0	7.0	10
Eos	%	0.0	5.0	0.0	3.0	6
Basos	%	0.0	5.0	0.0	1.0	1
RBC (Female)	-	3.9	5.1	3.9	4.5	4.41
Platelets	(K)	150.0	400.0	150.0	450.0	200

- ❖ Recovery from acute illness
- ❖ Viral
- ❖ Allergy or parasites
- ❖ Action: Support immune system with herbs and foods that decrease viral load
 - ❖ Oregano, thyme, garlic, oil of oregano, olive leaf extract, reishi mushroom, astragalus, echinacea, berberine containing herbs
- ❖ Diet: Avoid sugars and processed fats
- ❖ Exercise
- ❖ Testing follow-up: Repeat CBC in 3 - 4 months, stool analysis for parasites



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