

● PATIENT

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● ACCESSION

**BARNES, JAMES**

D.O.B: 01/22/1981  
 Gender: M  
 Age: 35  
 Patient ID: 052416AJB

**AION DEMO MD**

Account: 71487  
 Address: 123 Anywhere St  
 Spokane, WA99206

**H1012929**

Date & Time of Collection: 2016-05-12 • 07:42  
 Date Received: 2016-05-12  
 Report Date: 2016-05-24  
 Report Status: Final

**Laboratory Test**

Results  
05/12/2016

Units

Reference Ranges

Site  
Code

**SUMMARY RESULTS**

• <b>BUN/Creatinine Ratio (Calc)</b>	<b>9.1</b>	<b>Ratio</b>	<b>11-35</b>
• <b>Potassium</b>	<b>5.4</b>	<b>mmol/L</b>	<b>3.5-5.3</b>
• <b>Alkaline Phosphatase</b>	<b>120</b>	<b>U/L</b>	<b>35-115</b>



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Results 05/12/2016	Prior Results 10/01/2015	Prior Results 01/30/2015	Units	Reference Ranges	Site Code
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**Metabolic**

Hemoglobin A1c	5.3	5.2	5.5	%	4.0-5.6	01
Estimated Average Glucose	105	103	111	mg/dL	<154	01
C Peptide	4.2	4.2	4.2	ng/mL	1.0-5.5	01

**Endocrine**

Progesterone	0.98	1.15	1.10	ng/mL	0.28-1.22	01
Cortisol, Random	13.4	15.5	12.2	ug/dL	3.0-22.4	01
DHEA-SO4	412	401	352	ug/dL	100-432	01
Sex Hormone Binding Globulin	60.0	55.0	52.0	nmol/L	11-80	01
Testosterone, Total (LCMSMS)	652	602		ng/dL	300-1080	01
Testosterone, Total (LCMSMS)			956	ng/dL	332-896	01
Bioavailable Testos, (Calc)	227.2	203.6	398.4	ng/dL	130.0-680.0	01
Testosterone, Free (Calc)	94.8	97.7		pg/mL	47-244	01
Testosterone, Free (Calc)			173.8	pg/mL	47.0-244.0	01
Estradiol [LCMSMS]	28	45		pg/mL	14-53	01
Estradiol [LCMSMS]			32	pg/mL	10-42	01
Luteinizing Hormone	8.3	8.2	7.6	mIU/mL	1.7-8.6	01
Follicle Stimulating Hormone	10.5	9.2	8.3	mIU/mL	1.4-11.2	01
Insulin-Like Growth Factor 1	198	274	350	ng/mL	132-333	01
<b>Thyroid</b>						
TSH, 3rd Generation	4.352	3.258	3.621	uIU/mL	0.450-5.100	01
T3, Free	4.1	3.2	3.5	pg/mL	2.3-4.2	01
T4, Free	1.1	1.2	0.9	ng/dL	0.7-1.5	01

**Chemistry**

BUN	10	22	15	mg/dL	8-25	01
Creatinine	1.10	0.92	1.42	mg/dL	0.70-1.30	01
Estimated GFR (Calc)	>60	>60	57	ml/min/ 1.73m2	>60	01
BUN/Creatinine Ratio (Calc)	9.1	23.9	10.6	Ratio	11-35	01
Sodium	145	141	137	mmol/L	135-145	01
Potassium	5.4	5.5	4.0	mmol/L	3.5-5.3	01
Chloride	109	105	105	mmol/L	99-109	01

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**Chemistry (continued)**

CO2	27	27	25	mmol/L	22-31	01
Anion Gap	9	9	7	mmol/L	5-16	01
Protein, Total	8.1	7.8	7.5	g/dL	6.2-8.2	01
Albumin	4.4	3.8	4.2	g/dL	3.5-5.0	01
A/G Ratio	2.1	2.1	2.1	Ratio	1.1-2.2	01
Bilirubin, Total	0.9	0.5	1.3	mg/dL	0.1-1.5	01
Alkaline Phosphatase	120			U/L	35-115	01
Alkaline Phosphatase		117	110	U/L	38-115	01
ALT	50	49	52	U/L	10-65	01
AST	42	28	38	U/L	10-45	01
Calcium	9.2	8.7	9.1	mg/dL	8.5-10.2	01
Glucose	95	102	105	mg/dL	65-99	01
Iron	152	132	125	ug/dL	45-190	01
<b>CBC With Differential</b>						
Segs	45.0	45.0	45.0	%	38-70	01
Segs, Absolute	4.59	4.59	4.59	K/uL	1.80-7.70	01
Bands	5.0	5.0	5.0	%	0-8	01
Bands, Absolute	0.16	0.16	4.28	K/uL	0.00-0.24	01
Metamyelocytes	0.0	0.0	0.0	%	0	01
Myelocytes	0.0	0.0	0.0	%	0	01
Promyelocytes	0.0	0.0	0.0	%	0	01
Blasts	0.0	0.0	0.0	%	0	01
Lymphocytes	32.6	32.6	32.6	%	21-49	01
Lymphocytes, Absolute	2.96	4.65	6.58	K/uL	1.00-5.00	01
Variant Lymphocytes	5.5	5.5	5.5	%	0-6	01
Variant Lymphocytes, Absolute	0.56	0.56	0.56	K/uL		01
Monocytes	5.2	5.2	5.2	%	3-11	01
Monocytes, Absolute	0.72	0.58	2.68	K/uL	0.00-0.80	01
Eosinophils	5.2	5.2	5.2	%	0-7	01
Eosinophils, Absolute	0.48	0.48	0.48	K/uL	0.00-0.50	01
Basophils	1.6	1.6	1.6	%	0-2	01
Basophils, Absolute	0.19	0.12	1.58	K/uL	0.00-0.20	01
Others	2.5	2.5	2.5	%		01
Nucleated RBCs	2.6	2.6	2.6	/100 WBCs		01
Megakaryocyte frags	1.2	1.2	1.2	/100 WBCs		01

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**Chemistry (continued)**

RBC Morphology	100	100	100			01
WBC Morphology	50	50	50			01
Platelet Morphology	25	25	25			01
No. of Cells in Diff	72	72	72			01
White Blood Cells	10.6	8.5	10.2	K/uL	3.8-11.0	01
Neutrophils	52.0	52.0	52.0	%	40.0-75.0	01
Neutrophils, Absolute	5.60	5.60	5.60	K/uL	1.90-7.40	01
Red Blood Cells	4.96	5.32	4.52	M/uL	4.20-5.70	01
Differential Type	35	35	35			01
Hemoglobin	16.2	14.6	13.5	g/dL	13.2-17.0	01
Hematocrit	44.7	46.3	42.5	%	39.0-50.0	01
MCV	96.3	90.2	92.6	fL	80.0-100.0	01
MCH	33.2	28.7	30.1	pg	27.0-34.0	01
MCHC	33.6	35.1	34.2	g/dL	32.0-35.5	01
RDW	15.2	14.6	13.5	%	11.0-15.5	01
Platelets	384	369	350	K/uL	150-400	01
<b>Urinalysis w/Microscopic</b>						
Protein	Negative	Negative	Negative	mg/dL	NEG	01
Blood	Negative	Negative	Negative		NEG	01
Specific Gravity	1.015	1.015	1.015		1.001-1.030	01
Urobilinogen	1.2	1.2	1.2	mg/dL	<2.0	01
Color	YELLOW	YELLOW	YELLOW			01
Leukocyte Esterase	Negative	Negative	Negative		NEG	01
Nitrite	Negative	Negative	Negative		NEG	01
Glucose	Negative	Negative	Negative	mg/dL	NEG	01
Ketones	Negative	Negative	Negative	mg/dL	NEG	01
Bilirubin	Negative	Negative	Negative		NEG	01
Reducing Substances, Urine	Negative	Negative	Negative	mg/dL		01
WBC Clumps	None seen	None seen	None seen	/hpf	NS	01
RBC Clumps	None seen	None seen	None seen	/hpf	NS	01
Budding Yeast	None seen	None seen	None seen	/hpf	NS	01
Hyphae Yeast	None seen	None seen	None seen	/hpf	NS	01
Squamous Epithelial Cells	Few	Few	Few	/lpf		01
Transitional Epithelial Cells	None seen	None seen	None seen	/hpf	NS	01
Renal Epithelial Cells	None seen	None seen	None seen	/hpf	NS	01

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**Chemistry (continued)**

Oval Fat Bodies	None seen	None seen	None seen	/hpf	NS	01
Fat	None seen	None seen	None seen	/hpf	NS	01
WBC	3	3	3	/hpf	<6	01
Mucus	None seen	None seen	None seen	/lpf	NS	01
Sperm	None seen	None seen	None seen	/hpf	NS	01
Trichomonas	None seen	None seen	None seen	/hpf	NS	01
Hyaline Casts	None seen	None seen	None seen	/lpf	NS	01
Epithelial Cell Casts	None seen	None seen	None seen	/lpf	NS	01
WBC Casts	None seen	None seen	None seen	/lpf	NS	01
RBC Casts	None seen	None seen	None seen	/lpf	NS	01
Granular Casts	None seen	None seen	None seen	/lpf	NS	01
RBC	2	2	2	/hpf	<3	01
Broad Casts	None seen	None seen	None seen	/lpf	NS	01
Fatty Casts	None seen	None seen	None seen	/lpf	NS	01
Waxy Casts	None seen	None seen	None seen	/lpf	NS	01
Triple Phosphate Crystals	None seen	None seen	None seen	/hpf	NS	01
Calcium Oxalate Crystals	None seen	None seen	None seen	/hpf	NS	01
Calcium Phosphate Crystals	None seen	None seen	None seen	/hpf	NS	01
Calcium Carbonate Crystals	None seen	None seen	None seen	/hpf	NS	01
Uric Acid Crystals	None seen	None seen	None seen	/hpf	NS	01
Leucine Crystals	None seen	None seen	None seen	/lpf	NS	01
Cystine Crystals	None seen	None seen	None seen	/lpf	NS	01
Tyrosine Crystals	None seen	None seen	None seen	/lpf	NS	01
Amorphous Crystals	None seen	None seen	None seen	/hpf	NS	01
Bacteria	None seen	None seen	None seen	/hpf		01
Other	None seen	None seen	None seen			01
pH	6.2	6.2	6.2		5.0-7.5	01
Appearance	Clear	Clear	Clear			01

**Nutritional**

Magnesium	2.1	2.2	1.9	mg/dL	1.7-2.4	01
Ferritin	350	402	232	ng/mL	11-450	01
Vitamin B12	305	235	200	pg/mL	247-911	01

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**Nutritional (continued)**

Folate	20.2	19.2	15.5	ng/mL	5.4-24.0	01
25-OH Vitamin D2	5.2	5.2	5.2	ng/mL		01
25-OH Vitamin D3	20.2	20.2	20.2	ng/mL		01
25-OH Vitamin D, Total	25.4	25.4	25.4	ng/mL	24.0-80.0	01

**Inflammation**

CRP, High Sensitivity	0.5	0.7	1.5	mg/L	<3.0	01
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**Cardiac Risk**

Homocysteine	11.4	10.2	9.5	umol/L	4.0-12.0	01
<b>Standard Lipid</b>						
Cholesterol	195	220	245	mg/dL	<200	01
Non HDL Cholesterol	91	168	193	mg/dL		01
HDL	104	52	52	mg/dL	>39	01
Triglycerides	132	162	352	mg/dL	<150	01
LDL [Calculated]	65	136	123	mg/dL	<100	01
VLDL	26	32	70	mg/dL		01

**Other**

PSA (Prostate Specific Ag)	2.98	3.59	4.25	ng/mL	0.00-4.00	01
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COMMENTS

**Metabolic**

**Hemoglobin A1c**

A1c values of 5.7-6.4% indicate an increased risk for diabetes mellitus. A1c values of greater than or equal to 6.5% are diagnostic of diabetes mellitus. The ADA recommends A1c values of less than 7% as the goal for diabetic therapy.

**C Peptide**

Note: Reference range applies to fasting specimens.

**Endocrine**

**Cortisol, Random**

The reference ranges for Cortisol are dependent on the time of draw. Cortisol AM 4.3-22.4 ug/dL

**Testosterone, Free (Calc)**

Test developed and characteristics determined by PAML. See compliance Statement B: [aionlaboratories.com/CS](http://aionlaboratories.com/CS)

**Estradiol [LCMSMS]**

Access complete set of age and/or gender specific reference ranges for this test on the PAML test directory ([PAML.com](http://PAML.com))

**Chemistry**

**Creatinine**

IDMS traceable creatinine

**Estimated GFR (Calc)**

GFR <60: Chronic kidney disease, if found over a 3 month period. GFR <15: Kidney failure. For African Americans, multiply the calculated GFR by 1.210

**Squamous Epithelial Cells**

Healthy individuals show up to FEW squamous epithelial cells in the urine, depending on collection method.

**Nutritional**

**Vitamin B12**

Deficient: <212 pg/mL Indeterminate: 212 to 246 pg/mL Normal: 247 to 911 pg/mL

**Folate**

Deficient: 0.4 to 3.4 ng/mL Indeterminate: 3.5 to 5.3 ng/mL Normal: 5.4 to 24.0 ng/mL

**25-OH Vitamin D, Total**

Severe Deficiency < 10.0 ng/mL Mild to Moderate Deficiency 10.0-23.9 ng/mL Optimum Levels 24.0-80.0 ng/mL Toxicity Possible, Pediatrics (0-18 yrs) 80.0 or greater ng/mL Toxicity Possible, Adults (19+ yrs) 150.0 or greater ng/mL Reference ranges represent clinical decision values that apply to males and females of all ages rather than population-based reference values. Specific reference ranges for the individual analytes Vitamin D2 and Vitamin D3 are not available. This test was developed and its performance characteristics determined by PAML. The U.S. Food and Drug Administration (FDA) has not approved or cleared this test. However, FDA approval or clearance is currently not required for clinical use of this



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COMMENTS

**Nutritional (continued)**

test. The results are not intended to be used as the sole means for clinical diagnosis or patient management decisions. PAML is authorized under Clinical Laboratory Improvement Amendments (CLIA) to perform high-complexity testing.

**Inflammation**

**CRP, High Sensitivity**

Low Risk: <1.0 Average Risk: 1.0 to 3.0 High Risk: >3.0 Relative risk categories follow the recommendations of the American Heart Association and the CDC. Measurement of the hsCRP should be done twice (averaging results), optimally two weeks apart, in metabolically stable patients. If the hsCRP level is > 10 mg/L, the test should be repeated and the patient examined for non cardiovascular sources of inflammation, such as infection.

**Other**

**PSA (Prostate Specific Ag)**

Total PSA measured by the Siemens (formerly Bayer) Advia Centaur method. This result cannot be directly correlated with other total PSA methods.

Performing Labs: 01 PAML, 110 W. Cliff Dr, Spokane, WA 99204

**End Of Report**

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