



LAB #: U181010-2605-1
 PATIENT: Michael Cheikin
 ID: CHEIKIN-M-00001
 SEX: Male
 AGE: 62

CLIENT #: 32029
 DOCTOR: Michael Cheikin, MD
 Wynd Moore Rehab Association
 832 Germantown Pike 3
 Plymouth Meeting, PA 19462 U.S.A.

Toxic Metals; Urine

TOXIC METALS						
		RESULT µg/g creat	REFERENCE INTERVAL	WITHIN REFERENCE	OUTSIDE REFERENCE	
Aluminum	(Al)	2.2	< 25			
Antimony	(Sb)	< dl	< 0.2			
Arsenic	(As)	98	< 75			
Barium	(Ba)	5.1	< 7			
Beryllium	(Be)	< dl	< 1			
Bismuth	(Bi)	4.8	< 2			
Cadmium	(Cd)	0.3	< 0.8			
Cesium	(Cs)	5.6	< 9			
Gadolinium	(Gd)	< dl	< 0.5			
Lead	(Pb)	0.3	< 2			
Mercury	(Hg)	0.8	< 3			
Nickel	(Ni)	3.5	< 8			
Palladium	(Pd)	< dl	< 0.3			
Platinum	(Pt)	< dl	< 0.1			
Tellurium	(Te)	< dl	< 0.5			
Thallium	(Tl)	0.9	< 0.5			
Thorium	(Th)	< dl	< 0.03			
Tin	(Sn)	0.4	< 4			
Tungsten	(W)	< dl	< 0.4			
Uranium	(U)	< dl	< 0.03			

URINE CREATININE						
	RESULT mg/dL	REFERENCE INTERVAL	-2SD	-1SD	MEAN	+1SD +2SD
Creatinine	95.9	35- 240				

SPECIMEN DATA			
Comments:			
Date Collected: 10/06/2018	pH upon receipt: Acceptable	Collection Period: timed: 6 hours	
Date Received: 10/10/2018	<dl: less than detection limit	Volume:	
Date Completed: 10/11/2018	Provoking Agent:	Provocation: PRE PROVOCATIVE	
Method: ICP-MS	Creatinine by Jaffe Method		
Results are creatinine corrected to account for urine dilution variations. Reference intervals and corresponding graphs are representative of a healthy population under non-provoked conditions. Chelation (provocation) agents can increase urinary excretion of metals/elements.			
V13			



LAB #: U181010-2224-1
 PATIENT: Michael Cheikin
 ID: CHEIKIN-M-00001
 SEX: Male
 AGE: 62

CLIENT #: 32029
 DOCTOR: Michael Cheikin, MD
 Wynd Moore Rehab Association
 832 Germantown Pike 3
 Plymouth Meeting, PA 19462 U.S.A.

Toxic Metals; Urine

TOXIC METALS							
		RESULT	REFERENCE	WITHIN REFERENCE			OUTSIDE REFERENCE
		µg/g creat	INTERVAL				
Aluminum	(Al)	2.2	< 25				
Antimony	(Sb)	< dl	< 0.2				
Arsenic	(As)	110	< 75				
Barium	(Ba)	6	< 7				
Beryllium	(Be)	< dl	< 1				
Bismuth	(Bi)	25	< 2				
Cadmium	(Cd)	0.5	< 0.8				
Cesium	(Cs)	9.4	< 9				
Gadolinium	(Gd)	0.2	< 0.5				
Lead	(Pb)	14	< 2				
Mercury	(Hg)	19	< 3				
Nickel	(Ni)	3.3	< 8				
Palladium	(Pd)	< dl	< 0.3				
Platinum	(Pt)	< dl	< 0.1				
Tellurium	(Te)	< dl	< 0.5				
Thallium	(Tl)	2.6	< 0.5				
Thorium	(Th)	< dl	< 0.03				
Tin	(Sn)	0.6	< 4				
Tungsten	(W)	< dl	< 0.4				
Uranium	(U)	< dl	< 0.03				

URINE CREATININE						
		RESULT	REFERENCE	-2SD -1SD MEAN +1SD +2SD		
		mg/dL	INTERVAL			
Creatinine		52.2	35- 240			

SPECIMEN DATA			
Comments:			
Date Collected: 10/06/2018	pH upon receipt: Acceptable	Collection Period: timed: 6 hours	
Date Received: 10/10/2018	<dl: less than detection limit	Volume:	
Date Completed: 10/11/2018	Provoking Agent: DMSA 2000	Provocation: POST PROVOCATIVE	
Method: ICP-MS	Creatinine by Jaffe Method		
Results are creatinine corrected to account for urine dilution variations. Reference intervals and corresponding graphs are representative of a healthy population under non-provoked conditions. Chelation (provocation) agents can increase urinary excretion of metals/elements.			
V13			



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Essential Elements; Urine

ESSENTIAL AND OTHER ELEMENTS							
	RESULT/UNIT per creatinine	REFERENCE INTERVAL	PERCENTILE				
			2.5 th	16 th	50 th	84 th	97.5 th
Sodium (Na)	28 mEq/g	40- 200					
Potassium (K)	28 mEq/g	20- 90					
Phosphorus (P)	780 µg/mg	150- 1000					
Calcium (Ca)	98 µg/mg	20- 250					
Magnesium (Mg)	100 µg/mg	20- 200					
Zinc (Zn)	0.6 µg/mg	0.09- 1.3					
Copper (Cu)	0.01 µg/mg	0.006- 0.06					
Sulfur (S)	670 µg/mg	275- 1000					
Manganese (Mn)	0.0006 µg/mg	0.0003- 0.005					
Molybdenum (Mo)	0.013 µg/mg	0.01- 0.13					
Boron (B)	2.7 µg/mg	0.4- 3.5					
Chromium (Cr)	< dl µg/mg	0.0002- 0.002					
Lithium (Li)	0.22 µg/mg	0.008- 0.18					
Selenium (Se)	0.12 µg/mg	0.03- 0.2					
Strontium (Sr)	0.17 µg/mg	0.035- 0.32					
Vanadium (V)	< dl µg/mg	0.0001-0.0015					
			68 th		95 th		
Cobalt (Co)	< dl µg/mg	< 0.007					
Iron (Fe)	0.11 µg/mg	< 1					

URINE CREATININE							
	RESULT mg/dL	REFERENCE INTERVAL	-2SD	-1SD	MEAN	+1SD	+2SD
Creatinine	95.9	35- 240					

SPECIMEN DATA			
Comments:			
Date Collected: 10/06/2018	pH Upon Receipt: Acceptable	Collection Period: timed: 6 hours	
Date Received: 10/10/2018	<dl: less than detection limit	Volume:	
Date Completed: 10/11/2018	Provoking Agent:	Provocation: PRE PROVOCATIVE	
Method: ISE;Na, K Spectrophotometry; P ICP-MS; B, Ca, Cr, Co, Cu, Fe, Mg, Mn, Mo, Se, Sr, S, V, Zn Creatinine by Jaffe method			
Results are creatinine corrected to account for urine dilution variations. Reference intervals and corresponding graphs are representative of a healthy population under non-provoked conditions. Chelation (provocation) agents can increase urinary excretion of metals/elements.			
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Essential Elements; Urine

ESSENTIAL AND OTHER ELEMENTS									
		RESULT/UNIT per creatinine	REFERENCE INTERVAL	PERCENTILE					
				2.5 th	16 th	50 th	84 th	97.5 th	
Sodium	(Na)	44 mEq/g	40- 200						
Potassium	(K)	80 mEq/g	20- 90						
Phosphorus	(P)	470 µg/mg	150- 1000						
Calcium	(Ca)	110 µg/mg	20- 250						
Magnesium	(Mg)	87 µg/mg	20- 200						
Zinc	(Zn)	1.2 µg/mg	0.09- 1.3						
Copper	(Cu)	0.14 µg/mg	0.006- 0.06						
Sulfur	(S)	870 µg/mg	275- 1000						
Manganese	(Mn)	0.002 µg/mg	0.0003- 0.005						
Molybdenum	(Mo)	0.014 µg/mg	0.01- 0.13						
Boron	(B)	2.4 µg/mg	0.4- 3.5						
Chromium	(Cr)	< dl µg/mg	0.0002- 0.002						
Lithium	(Li)	0.23 µg/mg	0.008- 0.18						
Selenium	(Se)	0.098 µg/mg	0.03- 0.2						
Strontium	(Sr)	0.18 µg/mg	0.035- 0.32						
Vanadium	(V)	< dl µg/mg	0.0001-0.0015						
				68 th		95 th			
Cobalt	(Co)	< dl µg/mg	< 0.007						
Iron	(Fe)	< dl µg/mg	< 1						

URINE CREATININE							
	RESULT mg/dL	REFERENCE INTERVAL					
			-2SD	-1SD	MEAN	+1SD	+2SD
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Method: ISE;Na, K Spectrophotometry; P ICP-MS; B, Ca, Cr, Co, Cu, Fe, Mg, Mn, Mo, Se, Sr, S, V, Zn Creatinine by Jaffe method			
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