

NHANES Levels Extracted by Dr. Anderson

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http://www.cdc.gov/biomonitoring/pdf/FourthReport_UpdatedTables_Feb2015.pdf

NHANES 2015 Updates from the “Fourth Report”:

- I’ll only show totals for nonsmokers in the 75th and 90th percentiles
 - These in my opinion are where the levels become most medically relevant
- Age matched data can be seen in the document referenced above
- I (while intrigued by the differences) do not make diagnostic or therapeutic differences between smokers and nonsmokers.
- Below are the metals in the common order reported by labs.
 - *If no NHANES data is available I reference the common lab cut off levels.
 - If it is “Undetectable” That indicates NHANES could not measure it in the average human

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Using NHANES

- These are NOT the “normal values” on your lab reports
- They are the only validated ranges for exposure to HM
- While we don’t have HNANES for all metals it is wise to norm your Pre-UTM to these ranges and NOT the lab ranges
- Do Pre and Post UTM, use NHANES and keep yourself out of trouble

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NHANES Fourth Report expressed as micrograms / gram creatinine

Metal	75th percentile	90th percentile
Aluminum		No NHANES – Lab < 25
Antimony	.092	.152
Arsenic (total)	13.0	32
Barium	2.4	4.04
Beryllium	Below detection	Below detection
Bismuth		No NHANES – Lab < 1
Cadmium	.310	.629
Cesium	5.91	8.12
Cobalt	.557	.880
Gadolinium		No NHANES – Lab < 0.8
Lead	.634	1.00
Mercury	.676	1.33

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NHANES Fourth Report expressed as micrograms / gram creatinine

Metal	75th percentile	90th percentile
Nickle		No NHANES – Lab < 5
Palladium		No NHANES - Lab > 0.1
Platinum	Below detection	.050
Tellurium		No NHANES – Lab > 0.5
Thallium	.235	.337
Thorium		No NHANES – Lab > 0.02
Tin	1.34	2.80
Tungsten	.161	.323
Strontium	156	240
Uranium	0.11	0.21

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NHANES 4 Blood expressed as mcg/L

	<u>Percentile:75th</u>	<u>90th</u>
Cadmium	0.46	0.96
Lead	1.52	2.38
Mercury	1.38	2.87

Useful in monitoring acute exposure,
And “die off” related toxicity etc.

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