

Attachment 11f

MEC Examination Results

A. Final Report of Findings Sample	11f-2
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11f-A. Final Report of Findings Sample

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A

National Health and Nutrition Examination Survey

March 1, 2025

Ladonna Cooper
1234 Main Street
First, LA 70123

Dear Ladonna,

Thank you for taking part in the National Health and Nutrition Examination Survey (NHANES), conducted by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention. We are pleased to provide you with the results of your health exam from January 5, 2025. NHANES data are used to evaluate the country's health problems, develop health programs, and improve the quality of health care. By taking part in this survey, you have helped add to our knowledge about the health status of people living in the United States.

Your NHANES exam was not meant to be a complete assessment or replace visits to your health care provider. However, your exam results may be useful for maintaining and improving your health, and you can choose to share them with your health care providers.

Some of the NHANES exams and tests are usually done with people who have specific health problems. Your results may show something abnormal but do not represent an illness. If you take your results to your health care provider, they may recommend other tests that may or may not identify a health concern. You will be responsible for any costs associated with these additional tests.

You are responsible for securing your test results. If you do not want anyone else to see your results, keep them secure so no one else can review them. As described in the NHANES confidentiality agreement, we will not report your results to health care providers or public health departments.

If you have any questions about the results of your exam, you can reach me Monday through Friday from 9 am to 5 pm Eastern Time, toll-free, at 1-800-452-6115 (press 1 for English and press 2 for Spanish).

Sincerely,

Duong Nguyen, DO
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

Enclosure

12345
{OMB NUMBER}
{OMB EXP DATE}





Final Report of Findings

Date of Examination: January 25, 2025
Participant Name: Ladonna Cooper
Participant Age at Exam: 45 years

Participant Gender: Female
SP ID: 12345

Body Measurements		
Your body measurements were		
Weight	185 lbs 12 oz	Based on your gender and height, your weight is above the range of a healthy weight, and you may be overweight.
Height	5 feet 7 inches	
Body Mass Index	29 kg/m ²	
Waist Circumference	35.6 inches	Your waist circumference was greater than 35 inches. Based on guidelines from the National Heart, Lung and Blood Institute at NIH (1998) this is associated with an increased risk of health problems such as type 2 diabetes, high blood pressure, and cardiovascular disease.

For additional information on maintaining a healthy weight please see <https://www.cdc.gov/healthyweight/index.html>.

Blood Pressure & Heart Rate	
Your measurements were	
Systolic Blood Pressure: 131 mm/hg	Your blood pressure was elevated. Based on national guidelines for the treatment of blood pressure,* your blood pressure should be rechecked by your health care provider within 3–6 months of the Mobile Exam Center examination.
Diastolic Blood Pressure: 82 mm/hg	
Resting Pulse Rate: 88 Beats/ min	
*Based on the American Cardiology Association (ACC) and the American Heart Association (AHA) Hypertension Guidelines for Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults. <i>American Journal of Hypertension</i> , 2018; 31(2):133-135.	

For more information regarding preventing and managing high blood pressure see https://www.cdc.gov/bloodpressure/prevent_manage.html.

Visual Acuity
We have done a quick check of your vision. Our exam is not as precise as an eye exam done by an eye doctor. These values may differ from a vision exam you may have by an ophthalmologist, optometrist, or optician.
Based on the examination, when wearing your glasses:
Your right eye distance vision is 20/40. Your left eye distance vision is 20/20.
This level of vision is below normal. If you were not already aware of this, you should follow up with your eye care provider to have a full examination and determine whether your lens need to be adjusted to improve your vision.

Final Report of Findings

Oral Health Exam

During the NHANES health exam, an oral health assessment was completed by a dental hygienist. The oral health assessment of NHANES is not intended to be a substitute for the exam provided by your dentist or oral health provider. The NHANES oral health assessment did not include a comprehensive dental history or x-rays.

The dental examiner recommends that you:	See a dentist within the next 2 weeks.
The dental examiner observed the following conditions:	Decayed teeth/dental restoration issue. Clinical impression of soft tissue condition.

For more information about maintaining your oral health see <https://www.cdc.gov/oralhealth/basics/index.html>.

Ophthalmology Exam

Digital images of the back of your eye, the retina, were taken during your NHANES exam. The eye examination you received at the Mobile Exam Center was not a complete eye examination. Only a small portion of the back of your eye, the retina, was photographed. Trained professionals evaluated the images but did not have information about your vision, eye health, or general health status. You may already know the information provided here. Trained professionals evaluated the images and found the following conditions.

Acute proliferative retinopathy: There were changes in the retina, the back of your eye, that are often found in people with diabetes. These changes were found in the right eye.

If you are not currently under the care of an eye doctor (ophthalmologist) for this, you should make an appointment immediately to have this condition evaluated.

Suspicious cup/disc ratio: The optic nerve (the main nerve going into the eye) in the left eye has changes that suggest glaucoma may be present.

If you have not already or are not currently under the care of an eye doctor (ophthalmologist) for this, you should make an appointment immediately.

Nevus present without concerning features: A choroidal nevus, a small mole, like a birthmark, was found in the back of your right eye.

This should be watched annually by your eye doctor (ophthalmologist).

For more information about maintaining your vision and eye health see <https://www.cdc.gov/visionhealth/>.

Final Report of Findings

Audiometry Acuity							
Right Ear	The test indicates mild hearing loss in the low frequencies and a moderate hearing loss in the high frequencies.						
Left Ear	The test indicates moderate hearing loss across most test frequencies.						
The softest sounds you are able to hear are called hearing thresholds. Your thresholds at different frequencies (pitches) are reported in the table below. The lower-pitched sounds are toward the left of the table and the higher-pitched sounds are toward the right. Smaller numbers mean quieter sounds and therefore indicate better hearing. Values of 25 dB or less are considered normal hearing for adults.							
Hearing Levels by Ear and Frequency (Air Conduction) per dB HL							
Frequency (Hz)	500	1,000	2,000	3,000	4,000	6,000	8,000
Right Ear	40	45	50	50	60	60	70
Left Ear	45	40	50	50	50	50	50
This kind of hearing loss could cause you to have difficulty hearing speech.							
The audiometry test can identify a hearing problem but cannot determine the cause of hearing loss.							
It is recommended that you see a health care provider regarding your hearing loss if you have not already done so.							

Lung Function Testing				
This test was done to know how well your lungs work by measuring how much air you breathed in, how much air you breathed out, and how quickly you breathed it out. Trained professionals evaluated your lung function test but did not have information about your lung health or general health status.				
Lung function testing was done using the Easy on-PC spirometer. The results below are based on the highest values among all your efforts.				
Compared with other people of your age, sex, and height, your breathing test results were within normal limits.*				
Measure	Best	LLN	z-score	% Pred
FVC (L)	5.4	4.96	-0.91	90
FEV1 (L)	4.4	4.11	-1.06	89
FEV1/FVC	81.5	74.3	-0.42	97
FET (s)	3.1			
FVC – forced vital capacity; FEV1 – forced expiratory volume in 1 second; FET – forced expiratory time; LLN – lower limit of normal; z-score – statistic describing how far the best value deviates from the predicted value; % Pred – percent of the predicted value.				
Reference values used to calculate LLN, z-score, and % Predicted are based on the Global Lung Function Initiative (GLI) Global reference equation.				
* Based on Bowerman C, Bhakta NR, Brazzale D, et al. A Race-neutral Approach to the Interpretation of Lung Function Measurements. Am J Respir Crit Care Med. 2023;207(6):768-774.				

For more information on maintaining healthy lungs see <https://www.cdc.gov/asthma/community-health/>.

Final Report of Findings

Bone Mineral Density Measurements

The bone density measurement can help spot persons who may be at greater risk for fracture because they have weaker bones. In general, a lower bone density means that the bone is weaker. Yet not all men or women with low bone density will have fractures.

The results of your left hip scan show hip bone density 0.767 g/cm ² .	This equals a T-score of -1.2.	Based on diagnostic criteria as recommended by the World Health Organization and the International Society of Clinical Densitometry (International Society for Clinical Densitometry, 2023) your hip bone density is low.	Most people develop low bone density over many years. We recommend you discuss these results with your health care provider. Your provider can review your diet and lifestyle and tell you what you can do to prevent more bone loss.
The results from your spine scan show spine bone density 1.019 g/cm ² .	This equals a T-score of -0.7.	Based on diagnostic criteria as recommended by the World Health Organization and the International Society of Clinical Densitometry your spine bone density is normal.	

For additional information on maintaining your bone health please see <https://www.nia.nih.gov/health/osteoporosis>.

Complete Blood Count

Test	Result	Units	Flag	Reference Range
Red Blood Count (RBC)	3.7	x10 ¹² /L		3.5-5.34
Hematocrit	30	%	Low	32-45.9
Hemoglobin	9	g/dL	Low	10.6-15.6
Mean Corpuscular Volume (MCV)	88.2	fL		74.6-98.2
Mean Corpuscular Hemoglobin (MCH)	27.0	pg		24.3-33.8
MCH Concentration (MCHC)	33.1	g/dL		32.1-35.3
Red Cell Distribution Width (RDW)	15.1	%		11.4-16.3
White Blood Count (WBC)	9.2	x10 ⁹ /L		4-11.6
Absolute Lymphocytes	4.2	x10 ⁹ /L		0.6-6.1
Absolute Monocytes	7.2	x10 ⁹ /L		3.8-11.6
Absolute Neutrophils	1.0	x10 ⁹ /L		0.2-1.5
Absolute Eosinophils	0.5	x10 ⁹ /L		0.0-0.9
Absolute Basophils*	0.1	x10 ⁹ /L		0.0-0.2
Lymphocytes Percentage	15.1	%		14.1-47.6
Monocytes Percentage	4.2	%		3.8-11.6
Neutrophils Percentage	55.1	%		40.9-78.1
Eosinophils Percentage	6.3	%		0.6-7.3
Basophils Percentage*	1.7	%		0.1-2.5

Final Report of Findings

Complete Blood Count				
Test	Result	Units	Flag	Reference Range
Platelet Count	45	x10 ⁹ /L		39.8-78.1
Mean Platelet Volume (MPV)	8.2	fL		6.8-10.2
---Test not done				
Please follow up with a health care provider for Complete Blood Count.				
*This finding was not confirmed by microscopy and follow-up may be necessary.				

Diabetes Blood Test				
Test	Result	Units	Flag	Reference Range
Glucose	132	mg/dL	High	60-109
Hemoglobin A1c	6.1	%		< 6.5
Glucose (high): Please follow up with your health care provider				
For more information about diabetes see https://www.cdc.gov/diabetes/basics/diabetes.html .				

Thyroid Function Tests				
Test	Result	Units	Flag	Reference Range
Total Thyroxine (Total T4)	149	nmol/L		58-151
Free Thyroxine (Free (T4)	1.70	ng/dl		0.93-1.73
Thyroid Peroxidase Antibodies	32	IU/mL		<34
Thyroglobulin Antibodies	110	IU/mL		<116
Thyroid Stimulating Hormone (TSH)	0.23	mIU/mL	Low	0.51-5
Thyroid Stimulating Hormone Receptor Antibodies (TSRAb)	0.65	IU/mL	High	<0.54
TSH (Low): Please follow up with your health care provider				
TSRAb (High): Please follow up with your health care provider				
For more information about maintaining thyroid health see				
https://www.niddk.nih.gov/health-information/endocrine-diseases/hyperthyroidism or				
https://www.niddk.nih.gov/health-information/endocrine-diseases/hypothyroidism .				

Kidney Function Tests				
Test	Result	Units	Flag	Reference Range
BUN	8	mg/dL		6-19
Creatinine	1.0	mg/dL		0.4-1.2
Estimated Glomerulus Filtration Rate (eGFR)	33	mL/min/ 1.73m ²		<60.00
Albumin Creatinine Ratio (Urine)	17	mg/g		< 30.00
For more information about maintaining kidney health see https://www.cdc.gov/kidneydisease/index.html .				

Final Report of Findings

Liver Function Tests				
Test	Result	Units	Flag	Reference Range
Alanine Aminotransferase (ALT)	22	IU/L		< 31
Albumin	4.0	g/dL		3.2-5.2
Alkaline Phosphatase	44	IU/L		39-117
Aspartate Aminotransferase (AST)	19	IU/L		< 31
Total Bilirubin	0.45	mg/dL		0.0-1.0
Gamma Glutamyl Transaminase (GGT)	23	IU/L		7-33
Lactate Dehydrogenase (LDH)	123	IU/L		94-250
Cholesterol and Lipid Tests				
Test	Result	Units	Flag	Reference Range
Cholesterol	210	mg/dL	High	< 200
HDL	32	mg/dL		> 39
Triglycerides	173	mg/dL	High	< 150
LDL Calculated	152	mg/dL	High	< 130
Cholesterol (High): Please follow up with your health care provider				
Triglycerides (High): Please follow up with your health care provider				
LDL Calculated (High): Please follow up with your health care provider				
For more information about maintaining healthy cholesterol and lipid levels see https://www.cdc.gov/cholesterol/index.htm .				
Hemoglobin Variants				
Test	Result	Flag	Reference Range	
Hemoglobin variant (S)	Not Present		Not Present	
Hemoglobin variant (C)	Not Present		Not Present	
Hemoglobin variant (D)	Not Present		Not Present	
Hemoglobin variant (F)	Not Present		Not Present	
Hemoglobin variant (E)	Not Present		Not Present	
Hepatitis Profile				
Test	Result	Flag	Reference Range	
Hepatitis B surface Antigen (HbsAg)	Nonreactive		Nonreactive	
Hepatitis C Antibodies (HCV-Ab)	Nonreactive		Nonreactive	
Allergy Testing				
Test	Result	Units	Flag	Reference Range
Total IgE	98	Ku/L		>100
alpha-gal	0.44	Ku/L		>0.35
Alternaria alternata (mold)	0.21	Ku/L		<0.35
Ambrosia artemisiifolia (ragweed short/ common)	0.01	Ku/L		<0.35

Final Report of Findings

Allergy Testing				
Test	Result	Units	Flag	Reference Range
Aspergillus fumigatus (mold)	0.33	Ku/L		<0.35
Bermuda grass	0.27	Ku/L		<0.35
Birch	0.23	Ku/L		<0.35
Cat epithelium and dander	0.27	Ku/L		<0.35
Cladosporium herbarum	0.12	Ku/L		<0.35
Common ragweed	0.20	Ku/L		>0.35
Cows Milk	0.01	Ku/L		<0.35
D. farinae (dust mite)	0.21	Ku/L		<0.35
D. pteronyssinus (dust mite)	0.16	Ku/L		<0.35
Dog dander	0.33	Ku/L		<0.35
Egg	0.05	Ku/L		<0.35
Blatella Germanica (German cockroach)	0.33	Ku/L		<0.35
Mouse urine proteins	0.23	Ku/L		<0.35
Peanut	0.03	Ku/L		<0.35
Penicillium	0.44	Ku/L		>0.35
Russian thistle	0.26	Ku/L		<0.35
Shellfish (shrimp)	0.02	Ku/L		<0.35
White Oak	0.17	Ku/L		<0.35
---Test not done				

The results in this table do not confirm if you do or do not have an allergy to the items tested. For an allergy to be appropriately diagnosed, a healthcare provider must interpret these results with a medical history and other medical information.

Iron Profile Tests				
Test	Result	Units	Flag	Reference Range
Serum Ferritin	18	µg/L		15-150
Folate in Red Blood Cells	740	nmol/L		640-2006
Folate in Serum	12.3	nmol/L		10.5-90.7
Iron	34	µg/dL		22-163

Reproductive Hormones				
Test	Result	Units	Flag	Reference Range
17α-Hydroxyprogesterone	20	ng/dL		Varies individually
Androstenedione	97	ng/dL		85-275
Anti-Mullerian Hormone	1.01	ng/dL		0.06-4.44
Dehydroepiandrosterone Sulfate (DHEAS)	12	µg/mL		Varies individually
Estrone	36	ng/mL		Varies individually
Estrone Sulfate	880	pg/mL		Varies individually
Estradiol	210	pg/mL		Varies individually

Final Report of Findings

Iron Profile Tests				
Test	Result	Units	Flag	Reference Range
Sex Hormone Binding Protein (SHBP)	19	nmol/L		Varies individually
Follicle Stimulating Hormone	17	mIU/mL		< 8.5
Luteinizing Hormone	10	mIU/mL		5-25
Testosterone	20	ng/dL		9-55

Reproductive hormone testing is used in medical settings to help diagnose and follow conditions such as infertility, early or delayed puberty, and menstrual irregularities. Some reproductive hormone levels vary among individuals or depending on the time of day that samples were taken and the phase of menstrual cycles. Results that are lower or higher than the Reference Range are not always associated with illnesses or health risks. Please review these results with your healthcare provider.

Other Blood Chemistry Tests				
Test	Result	Units	Flag	Reference Range
Bicarbonate	25	mmol/L		22-29
Calcium	9.2	mg/dL		8.4-10.2
Chloride	102	mmol/L		96-108
Magnesium	1.9	mg/dL		>1.6
Potassium	4.1	mmol/L		3.30-5.10
Total Protein	6.1	g/dL		5.9-8.4
Sodium	141	mmol/L		133-145
CPK	167	IU/L		22-199

Additional Tests				
Test	Result	Units	Flag	Reference Range
Vitamin D	37	nmol/L		30-125
Urine Pregnancy	Negative			
Number of hours fasted prior to blood draw		8.5		
---Test not done				

Environmental Health Profile				
Blood Test	Result	Units	Flag	Reference Range
Butyrylcholinesterase activity & concentration	0.1	U/ml		≥0.05
Cadmium	0.5	µg/L		0.3-1.2

Final Report of Findings

Environmental Health Profile				
Blood Test	Result	Units	Flag	Reference Range
Lead	0.2	µg/dL		<10
Manganese	6	µg/L		4-15
Total Mercury	1.1	µg/L		<5.7
Selenium	98	µg/L		58-234
Urine Test	Result	Units	Flag	Reference Range
Urinary Arsenic/ Speciated Arsenic	10	µg/L		<50
Urinary Chromium	0.3	µg/L		<10
Urinary Nickel	1.3	µg/L		{1-3}
Household Water	Result	Units	Flag	Reference Range
Fluoride, water	0.9	mg/L		0.7-1.2
---Test not done				

For more information about Environmental Exposures and your health see

- <https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=19&toxid=3>
- <https://www.cdc.gov/fluoridation/basics/index.htm>
- https://www.cdc.gov/biomonitoring/pdf/Cadmium_FactSheet.pdf
- <https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=47&toxid=15>
- https://www.cdc.gov/biomonitoring/Mercury_FactSheet.html or
- <https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=113&toxid=24>
- <https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=93&toxid=22>

Final Report of Findings

Laboratory Information

The following CLIA-certified laboratories performed the named tests on biologic specimens.	
NHANES Mobile Examination Center Laboratory National Center for Health Statistics 3311 Toledo Road Hyattsville, MD 20782	Complete blood count Urine pregnancy (via the Beckman Coulter ICON 25 hCG urinary pregnancy test)
CDC/NCID Division of Viral Hepatitis 1600 Clifton Road NE Building 18, Floor/Room 3-218, MS A33 Atlanta, GA 30329	Hepatitis B surface antigen, Hepatitis C RNA and genotype, and Hepatitis D
Diabetes Diagnostic Laboratory University of Missouri - Columbia Hospital Drive Room M765 Columbia, MO 65212 (This contract will need to be rebid for 2025.)	Glucose, hemoglobin A1c and Hemoglobin variants: C, D, E, F, and S
University of Minnesota Advanced Research and Diagnostic Laboratory 1200 Washington Ave S Suite 175 Minneapolis, MN 55415 (This contract will need to be rebid for 2025.)	Blood Tests – Chemistry Panel: (ALT, AST, Albumin, Alkaline phosphatase (ALP), Bicarbonate, Bilirubin, BUN, Calcium, Chloride, Creatinine (serum), Cystatin C, Estimated glomerular filtration rate (EGFR), GGT, Glucose, Iron, Lactate Dehydrogenase (LDH), Magnesium, Potassium, Sodium, Total bilirubin, Total protein, Uric acid) Lipid Panel: Cholesterol, HDL, LDL, and Triglycerides Urine Tests: Albumin/creatinine ratio
Centers for Disease Control and Prevention National Center for Environmental Health Nutritional Biomarkers Branch Laboratory 4770 Buford Highway, NE MS F-55 Atlanta, GA 30341	RBC folate, Serum ferritin, Serum folate, Vitamin D
Centers for Disease Control and Prevention National Center for Environmental Health/DLS/CCB Chamblee Bldg 110 Rm 2112m MS S110-2 Atlanta, GA 30341	Reproductive hormones: Androstenedione, dehydroepiandrosterone, Anti-mullerian hormone (females only), Estradiol, Estrone, Estrone sulfate, Follicle stimulating hormone (FSH), Hydroxyprogesterone, Luteinizing hormone (LH), Progesterone, Sex-hormone binding globulin, and Testosterone Thyroid panel: Free and total triiodothyronine (T3), free and total thyroxine (T4), thyroid stimulating hormone (TSH), thyroglobulin antibodies, thyroid peroxidase antibodies (TPO), thyroglobulin, thyroid stimulating hormone receptor antibodies

Final Report of Findings

Laboratory Information

The Clinical Laboratory Improvement Amendments of 1988 (CLIA) regulations include federal standards applicable to all U.S. facilities or sites that test human specimens for health assessment or to diagnose, prevent, or treat disease.

The following CLIA-certified laboratories performed the named tests on biologic specimens.

Centers for Disease Control and Prevention NCEH / DLS / IRAT 4770 Buford Hwy. Building 103, Labs 1117, 1119, 1103 Mailstop F-18 Atlanta, GA 30341-3724	Blood Tests: Cadmium, Inorganic mercury Lead, Manganese, Selenium, Total mercury Urine Tests: Chromium, Nickel & Total arsenic Other samples: Water fluoride
Centers for Disease Control and Prevention NCEH/DLS/ERB CHAMBLEE BLDG 110 Rm 4112L MS S110-4 Atlanta, GA 30341	Butyrylcholinesterase activity
TBD {Lab Name}Diabetes Diagnostic {Lab Title} {Lab Location} {Lab Street Address} {Lab Street Address 2} {Lab City State Zip}	Allergy Testing



B

National Health and Nutrition Examination Survey

May 25, 2025

William Cooper
1234 Main Street
First, LA 70123

To the Parent or Guardian of William Cooper,

Thank you for helping William take part in the National Health and Nutrition Examination Survey (NHANES), conducted by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention. We are pleased to provide you William's results of their health exam from January 25, 2025. NHANES data are used to evaluate the country's health problems, develop health programs, improve the quality of health care, and help add to our knowledge about the health status of people living in the United States.

William's NHANES exam was not meant to be a complete assessment or replace visits to their health care provider. However, their exam results may be useful for maintaining and improving their health, and you can choose to share them with William's health care providers.

Some of the NHANES exams and tests are usually done with people who have specific health problems. William's results may show something abnormal but do not represent an illness. If you take William's results to William's health care provider, they may recommend other tests that may or may not identify a health concern. You will be responsible for any costs associated with these additional tests.

You are responsible for securing William's test results. If you do not want anyone else to see their results, keep them secure so no one else can review them. As described in the NHANES confidentiality agreement, we will not report these results to health care providers or public health departments.

If you have any questions about the results of William's exam, you can reach me toll-free Monday through Friday from 9 am to 5 pm Eastern Time at 1-800-452-6115 (press 1 for English and press 2 for Spanish).

Sincerely,

Duong Nguyen, DO
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

Enclosure

12345
{OMB NUMBER}
{OMB EXP DATE}





Final Report of Findings

Date of Examination: January 25, 2025
Participant Name: William Cooper
Participant Age at Exam: 8 years

Participant Gender: Male
SP ID: 12345

Body Measurements		
William's body measurements were		
Weight	110 lbs 9 oz	Based on the 2000 CDC BMI-for-age growth chart curves for boys and girls, considering William's age, gender and height, their weight is above the range of a healthy weight, and William may have obesity.
Height	4 feet 10 inches	
Body Mass Index	23 kg/m ²	
Waist Circumference	32.6 inches	

For additional information about child and teen BMI, please see: <https://www.cdc.gov/nutrition/>.

Blood Pressure & Heart Rate	
William's measurements were	
Systolic Blood Pressure: 114 mm/hg	William's blood pressure was elevated. Based on national guidelines for the treatment of hypertension, the blood pressure should have been rechecked by a health care provider within 6 months of the Mobile Exam Center examination.*
Diastolic Blood Pressure: 62 mm/hg	
Resting Pulse Rate: 88 Beats/ min	
*Based on the Clinical Practice Guidelines for Screening and Management of High Blood Pressure in Children and Adolescents Subcommittee on screening and Management of High Blood Pressure in children. <i>Pediatrics</i> . 2017;140(3) e201071904	

For additional information about means to prevent and managing high blood pressure, please see: https://www.cdc.gov/bloodpressure/prevent_manage.html.

Visual Acuity
We have done a quick check of William's vision. Our exam is not as precise as an eye exam done by an eye doctor. These values may differ from a vision exam William may have had by an ophthalmologist, optometrist, or optician.
Based on the examination, when wearing your glasses: William's right eye distance vision is 20/30. William's left eye distance vision is 20/25.
This level of vision is below normal. If you were not previously aware of this, and have not done so already, William should follow up with their health or eye care provider to have a full examination and perhaps improve their vision.

For additional information about visual acuity, please see: <https://www.cdc.gov/visionhealth/>.



Final Report of Findings

Oral Health Exam

During the NHANES health exam, an oral health assessment was completed by a dental hygienist. The oral health assessment of NHANES is not intended to be a substitute for the exam provided by your dentist or oral health provider. The NHANES oral health assessment did not include a comprehensive dental history or x-rays.

The dental examiner recommends that William:	See a dentist within the next 2 weeks.
The dental examiner observed the following conditions:	Decayed teeth/dental restoration issue. Clinical impression of soft tissue condition.

For more information about maintaining your oral health see <https://www.cdc.gov/oralhealth/basics/index.html>.

Lung Function Testing

This test was done to know how well William's lungs work by measuring how much air they breathed in, how much air they breathed out and how quickly they breathed it out. Trained professionals evaluated William's lung function test but did not have information about their lung health or general health status. Lung function testing was done using the Easy on-PC spirometer. The results below are based on the highest values among all William's efforts.

Compared with other people of William's age, sex, and height, their breathing test results were within normal limits.*

Measure	Best	LLN	z-score	% Pred
FVC (L)	1.80	1.56	-0.84	87.7
FEV₁ (L)	1.71	1.4	-0.41	94.2
FEV₁/FVC	95	79.3	0.99	106.6
FET (s)	2.2			

FVC – forced vital capacity; FEV₁ – forced expiratory volume in 1 second; FET – forced expiratory time; LLN – lower limit of normal; z-score – statistic describing how far the best value deviates from the predicted value; % Pred – percent of the predicted value.

Reference values used to calculate LLN, z-score, and % Predicted are based on the Global Lung Function Initiative (GLI) Global reference equation.

* Based on Bowerman C, Bhakta NR, Brazzale D, et al. A Race-neutral Approach to the Interpretation of Lung Function Measurements. Am J Respir Crit Care Med. 2023;207(6):768-774.

For more information on maintaining healthy lungs see <https://www.cdc.gov/asthma/community-health/>.

Final Report of Findings

Audiometry Acuity							
Right Ear	The test indicates normal low frequencies hearing and a mild high frequency hearing loss.						
Left Ear	The test indicates normal low frequencies hearing and a mild high frequency hearing loss.						
The softest sounds William is able to hear are called hearing thresholds. William's thresholds at different frequencies (pitches) are reported in the table below. The lower-pitched sounds are toward the left of the table and the higher-pitched sounds are toward the right. Smaller numbers mean quieter sounds and therefore indicate better hearing. Values of 20 dB or less are considered normal hearing for children.							
Hearing Levels by Ear and Frequency (Air Conduction) per dB HL							
Frequency (Hz)	500	1,000	2,000	3,000	4,000	6,000	8,000
Right Ear	10	15	20	30	40	30	30
Left Ear	20	20	20	30	40	40	30
The audiometry test can identify a hearing problem but cannot determine the cause of hearing loss.							
This kind of hearing loss could cause your child to miss some speech sounds to have difficulty hearing speech.							
It is recommended that William sees a health care provider regarding their hearing loss if they have not already done so.							

For additional information on maintaining hearing, please see <https://www.cdc.gov/hearingloss/default.html>.

Complete Blood Count				
Test	Result	Units	Flag	Reference Range
Red Blood Count (RBC)	3.7	x10 ¹² /L		3.5-5.34
Hematocrit	30	%	Low	32-45.9
Hemoglobin	9	g/dL	Low	10.6-15.6
Mean Corpuscular Volume (MCV)	88.2	fL		74.6-98.2
Mean Corpuscular Hemoglobin (MCH)	27.0	pg		24.3-33.8
MCH Concentration (MCHC)	33.1	g/dL		32.1-35.3
Red Cell Distribution Width (RDW)	15.1	%		11.4-16.3
White Blood Count (WBC)	9.2	x10 ⁹ /L		4-11.6
Absolute Lymphocytes	4.2	x10 ⁹ /L		0.6-6.1
Absolute Monocytes	7.2	x10 ⁹ /L		3.8-11.6
Absolute Neutrophils	1.0	x10 ⁹ /L		0.2-1.5
Absolute Eosinophils	0.5	x10 ⁹ /L		0.0-0.9
Absolute Basophils*	0.1	x10 ⁹ /L		0.0-0.2
Lymphocytes Percentage	15.1	%		14.1-47.6
Monocytes Percentage	4.2	%		3.8-11.6
Neutrophils Percentage	55.1	%		40.9-78.1
Eosinophils Percentage	6.3	%		0.6-7.3

Final Report of Findings

Complete Blood Count				
Test	Result	Units	Flag	Reference Range
Basophils Percentage*	1.7	%		0.1-2.5
Platelet Count	45	x10 ⁹ /L		39.8-78.1
Mean Platelet Volume (MPV)	8.2	fL		6.8-10.2
---Test not done				
Please follow up with a health care provider for Complete Blood Count.				
*This finding was not confirmed by microscopy and follow-up may be necessary.				

Thyroid Function Tests				
Test	Result	Units	Flag	Reference Range
Total Thyroxine (Total T4)	149	nmol/L		58-151
Free Thyroxine (Free (T4)	1.70	ng/dl		1.04-1.87
Thyroid Peroxidase Antibodies	32	IU/mL		<34
Thyroglobulin Antibodies	110	IU/mL		<116
Thyroid Stimulating Hormone (TSH)	0.83	mIU/mL		0.55-5.31
Thyroid Stimulating Hormone Receptor Antibodies (TSRAb)	0.65	IU/mL	High	<0.54
For more information about maintaining thyroid health see https://www.niddk.nih.gov/health-information/endocrine-diseases/hyperthyroidism or https://www.niddk.nih.gov/health-information/endocrine-diseases/hypothyroidism .				

Kidney Function Tests				
Test	Result	Units	Flag	Reference Range
Albumin Creatinine Ratio (Urine)	17	mg/g		< 30.00
For more information about maintaining kidney health see https://www.cdc.gov/kidneydisease/index.html .				

Hepatitis Profile				
Test	Result	Flag	Reference Range	
Hepatitis B surface Antigen (HbsAg)	Nonreactive		Nonreactive	
Hepatitis C Antibodies (HCV-Ab)	Nonreactive		Nonreactive	

Final Report of Findings

Cholesterol and Lipid Tests				
Test	Result	Units	Flag	Reference Range
HDL	32	mg/dL		> 39
Triglycerides	153	mg/dL	High	< 150
LDL Calculated	120	mg/dL	High	< 110
Cholesterol (High): Please follow up with William's health care provider Triglycerides (High): Please follow up with William's health care provider LDL Calculated (High): Please follow up with William's health care provider				
For more information about maintaining healthy cholesterol and lipid levels see https://www.cdc.gov/cholesterol/index.htm .				

Allergy Testing				
Test	Result	Units	Flag	Reference Range
Total IgE	98	Ku/L		>100
alpha-gal	0.44	Ku/L		>0.35
Alternaria alternata (mold)	0.21	Ku/L		<0.35
Ambrosia artemisiifolia (ragweed short/ common)	0.01	Ku/L		<0.35
Aspergillus fumigatus (mold)	0.37	Ku/L	High	<0.35
Bermuda grass	0.56	Ku/L	High	<0.35
Birch	0.23	Ku/L		<0.35
Cat epithelium and dander	0.76	Ku/L	High	<0.35
Cladosporium herbarum	0.12	Ku/L		<0.35
Common ragweed	0.20	Ku/L		>0.35
Cows Milk	0.01	Ku/L		<0.35
D. farinae (dust mite)	0.21	Ku/L		<0.35
D. pteronyssinus (dust mite)	0.16	Ku/L		<0.35
Dog dander	0.33	Ku/L		<0.35
Egg	0.68	Ku/L	High	<0.35
Blatella Germanica (German cockroach)	0.33	Ku/L		<0.35
Mouse urine proteins	0.23	Ku/L		<0.35

Final Report of Findings

Allergy Testing				
Test	Result	Units	Flag	Reference Range
Peanut	0.03	Ku/L		<0.35
Penicillium	0.44	Ku/L		>0.35
Russian thistle	0.26	Ku/L		<0.35
Shellfish (shrimp)	0.02	Ku/L		<0.35
White Oak	0.17	Ku/L		<0.35
---Test not done				

The results in this table do not confirm if William does or does not have an allergy to the items tested. For an allergy to be appropriately diagnosed, a healthcare provider must interpret these results with a medical history and other medical information.

Reproductive Hormones				
Test	Result	Units	Flag	Reference Range
17 α -Hydroxyprogesterone	20	ng/dL		<90
Androstenedione	97	ng/dL		Varies individually
Dehydroepiandrosterone Sulfate (DHEAS)	12	μ g/mL		Varies individually
Estrone	36	ng/mL		Varies individually
Estrone Sulfate	880	pg/mL		Varies individually
Estradiol	210	pg/mL		Varies individually
Sex Hormone Binding Protein (SHBP)	19	nmol/L		Varies individually
Follicle Stimulating Hormone	17	mIU/m		Varies individually
Luteinizing Hormone	8	mIU/m		1.7-8.6
Testosterone	10	ng/dL	High	<9

Reproductive hormone testing is used in medical settings to help diagnose and follow conditions such as infertility, early or delayed puberty, and menstrual irregularities. Some reproductive hormone levels vary among individuals or depending on the time of day that samples were taken and the phase of menstrual cycles. Results that are lower or higher than the Reference Range are not always associated with illnesses or health risks. Please review these results with your health care provider.

Testosterone (High): Please follow up with William's health care provider

Additional Tests				
Test	Result	Units	Flag	Reference Range
Vitamin D	37	nmol/L		30-125
Number of hours fasted prior to blood draw		8.5		
---Test not done				

Environmental Health Profile				
Blood Test	Result	Units	Flag	Reference Range
Butyrylcholinesterase activity & concentration	0.1	U/ml		\geq 0.05

Final Report of Findings

Environmental Health Profile				
Blood Test	Result	Units	Flag	Reference Range
Cadmium	0.5	µg/L		0.3-1.2
Lead	0.2	µg/dL		<10
Manganese	6	µg/L		4-15
Total Mercury	1.1	µg/L		<5.7
Selenium	98	µg/L		58-234
Urine Test	Result	Units	Flag	Reference Range
Urinary Arsenic/ Speciated Arsenic	10	µg/L		<50
Urinary Chromium	0.3	µg/L		<10
Urinary Nickel	1.3	µg/L		{1-3}
Household Water	Result	Units	Flag	Reference Range
Fluoride, water	0.9	mg/L		0.7-1.2
---Test not done				

For more information about Environmental Exposures and your health see

- <https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=19&toxid=3>
- <https://www.cdc.gov/fluoridation/basics/index.htm>
- https://www.cdc.gov/biomonitoring/pdf/Cadmium_FactSheet.pdf
- <https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=47&toxid=15>
- https://www.cdc.gov/biomonitoring/Mercury_FactSheet.html or
- <https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=113&toxid=24>
- <https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=93&toxid=22>

Final Report of Findings

Laboratory Information

The following CLIA-certified laboratories performed the named tests on biologic specimens.	
NHANES Mobile Examination Center Laboratory National Center for Health Statistics 3311 Toledo Road Hyattsville, MD 20782	Complete blood count Urine pregnancy (via the Beckman Coulter ICON 25 hCG urinary pregnancy test)
CDC/NCID Division of Viral Hepatitis 1600 Clifton Road NE Building 18, Floor/Room 3-218, MS A33 Atlanta, GA 30329	Hepatitis B surface antigen, Hepatitis C RNA and genotype, and Hepatitis D
Diabetes Diagnostic Laboratory University of Missouri - Columbia Hospital Drive Room M765 Columbia, MO 65212 (This contract will need to be rebid for 2025.)	Glucose, hemoglobin A1c and Hemoglobin variants: C, D, E, F, and S
University of Minnesota Advanced Research and Diagnostic Laboratory 1200 Washington Ave S Suite 175 Minneapolis, MN 55415 (This contract will need to be rebid for 2025.)	Blood Tests – Chemistry Panel: (ALT, AST, Albumin, Alkaline phosphatase (ALP), Bicarbonate, Bilirubin, BUN, Calcium, Chloride, Creatinine (serum), Cystatin C, Estimated glomerular filtration rate (EGFR), GGT, Glucose, Iron, Lactate Dehydrogenase (LDH), Magnesium, Potassium, Sodium, Total bilirubin, Total protein, Uric acid) Lipid Panel: Cholesterol, HDL, LDL, and Triglycerides Urine Tests: Albumin/creatinine ratio
Centers for Disease Control and Prevention National Center for Environmental Health Nutritional Biomarkers Branch Laboratory 4770 Buford Highway, NE MS F-55 Atlanta, GA 30341	RBC folate, Serum ferritin, Serum folate, Vitamin D
Centers for Disease Control and Prevention National Center for Environmental Health/DLS/CCB Chamblee Bldg 110 Rm 2112m MS S110-2 Atlanta, GA 30341	Reproductive hormones: Androstenedione, dehydroepiandrosterone, Anti-mullerian hormone (females only), Estradiol, Estrone, Estrone sulfate, Follicle stimulating hormone (FSH), Hydroxyprogesterone, Luteinizing hormone (LH), Progesterone, Sex-hormone binding globulin, and Testosterone Thyroid panel: Free and total triiodothyronine (T3), free and total thyroxine (T4), thyroid stimulating hormone (TSH), thyroglobulin antibodies, thyroid peroxidase antibodies (TPO), thyroglobulin, thyroid stimulating hormone receptor antibodies

Final Report of Findings

Laboratory Information

The Clinical Laboratory Improvement Amendments of 1988 (CLIA) regulations include federal standards applicable to all U.S. facilities or sites that test human specimens for health assessment or to diagnose, prevent, or treat disease.

The following CLIA-certified laboratories performed the named tests on biologic specimens.

Centers for Disease Control and Prevention NCEH / DLS / IRAT 4770 Buford Hwy. Building 103, Labs 1117, 1119, 1103 Mailstop F-18 Atlanta, GA 30341-3724	Blood Tests: Cadmium, Inorganic mercury Lead, Manganese, Selenium, Total mercury Urine Tests: Chromium, Nickel & Total arsenic Other samples: Water fluoride
Centers for Disease Control and Prevention NCEH/DLS/ERB CHAMBLEE BLDG 110 Rm 4112L MS S110-4 Atlanta, GA 30341	Butyrylcholinesterase activity
TBD {Lab Name}Diabetes Diagnostic {Lab Title} {Lab Location} {Lab Street Address} {Lab Street Address 2} {Lab City State Zip}	Allergy Testing



C

National Health and Nutrition Examination Survey

March 1, 2025

Ladonna Cooper
1234 Main Street
First, LA 70123

Dear Ladonna,

The results of the tests you completed during your visit to the Mobile Exam Center on January 5, 2025 are attached. These are your initial laboratory results. You will receive a final report of your exam findings in 3 to 4 months. These exams are not intended to be a complete health exam or replace visits to your health care provider.

Some of the NHANES exams and tests are usually done with people who have specific health problems. Your results may show something abnormal but do not represent an illness. If you take your results to your health care provider, they may recommend other tests that may or may not identify a health concern. You will be responsible for any costs associated with these additional tests.

You are responsible for securing your test results. If you do not want anyone else to see your results, keep them secure so no one else can review them. As promised in our confidentiality agreement, we do not report these results to health care providers or to public health departments.

If you have any questions regarding your results, please feel free to contact me toll-free between 9 am and 5 pm Eastern Time, Monday through Friday, at 1-800-452-6115 6115 (press 1 for English and press 2 for Spanish).

Sincerely,

Duong Nguyen, DO
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

Enclosure

12345
{OMB NUMBER}
{OMB EXP DATE}





Preliminary Report of Findings

Date of Examination: January 25, 2025
Participant Name: Ladonna Cooper
Participant Age at Exam: 44 years

Participant Gender: Female
SP ID: 12345

Body Measurements		
Your body measurements were		
Weight	185 lbs 12 oz	Based on your gender and height, your weight is above the range of a healthy weight, and you may be overweight.
Height	5 feet 7 inches	
Body Mass Index	29 kg/m ²	
Waist Circumference	35.6 inches	Your waist circumference was greater than 35 inches. Based on guidelines from the National Heart, Lung and Blood Institute at NIH (1998) this is associated with an increased risk of health problems such as type 2 diabetes, high blood pressure, and cardiovascular disease.

For additional information on maintaining a healthy weight please see <https://www.cdc.gov/healthyweight/index.html>.

Blood Pressure & Heart Rate	
Your measurements were	
Systolic Blood Pressure: 131 mm/hg	Your blood pressure was elevated. Based on national guidelines for the treatment of blood pressure,* your blood pressure should have been rechecked by your health care provider within 3–6 months of the Mobile Exam Center examination.
Diastolic Blood Pressure: 82 mm/hg	
Resting Pulse Rate: 88 Beats/ min	
*Based on the American Cardiology Association (ACC) and the American Heart Association (AHA) Hypertension Guidelines for Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults. <i>American Journal of Hypertension</i> , 2018; 31(2):133-135.	

For more information regarding preventing and managing high blood pressure see https://www.cdc.gov/bloodpressure/prevent_manage.html.

Visual Acuity
We have done a quick check of your vision. Our exam is not as precise as an eye exam done by an eye doctor. These values may differ from a vision exam you may have by an ophthalmologist, optometrist, or optician.
Based on the examination, when wearing your glasses:
Your right eye distance vision is 20/40. Your left eye distance vision is 20/20.
This level of vision is below normal. If you were not already aware of this, you should follow up with your eye care provider to have a full examination and determine whether your lens need to be adjusted to improve your vision.

Preliminary Report of Findings

Oral Health Exam

During the NHANES health exam, an oral health assessment was completed by a dental hygienist. The oral health assessment of NHANES is not intended to be a substitute for the exam provided by your dentist or oral health provider. The NHANES oral health assessment did not include a comprehensive dental history or x-rays.

The dental examiner recommends that you:	See a dentist within the next 2 weeks.
The dental examiner observed the following conditions:	Decayed teeth/dental restoration issue. Clinical impression of soft tissue condition.

For more information about maintaining your oral health see <https://www.cdc.gov/oralhealth/basics/index.html>.

Audiometry Acuity

Right Ear	The test indicates mild hearing loss in the low frequencies and a moderate hearing loss in the high frequencies.
Left Ear	The test indicates moderate hearing loss across most test frequencies.

The softest sounds you are able to hear are called hearing thresholds. Your thresholds at different frequencies (pitches) are reported in the table below. The lower-pitched sounds are toward the left of the table and the higher-pitched sounds are toward the right. Smaller numbers mean quieter sounds and therefore indicate better hearing. Values of 25 dB or less are considered normal hearing for adults.

Hearing Levels by Ear and Frequency (Air Conduction) per dB HL

Frequency (Hz)	500	1,000	2,000	3,000	4,000	6,000	8,000
Right Ear	40	45	50	50	60	60	70
Left Ear	45	40	50	50	50	50	50

This kind of hearing loss could cause you to have difficulty hearing speech.

The audiometry test can identify a hearing problem but cannot determine the cause of hearing loss.

It is recommended that you see a health care provider regarding your hearing loss if you have not already done so.

For more information about maintaining hearing health see <https://www.cdc.gov/hearingloss/default.html>

Complete Blood Count

Test	Result	Units	Flag	Reference Range
Red Blood Count (RBC)	3.7	x10 ¹² /L		3.5-5.34
Hematocrit	30	%	Low	32-45.9
Hemoglobin	9	g/dL	Low	10.6-15.6
Mean Corpuscular Volume (MCV)	88.2	fL		74.6-98.2
Mean Corpuscular Hemoglobin (MCH)	27.0	pg		24.3-33.8
MCH Concentration (MCHC)	33.1	g/dL		32.1-35.3
Red Cell Distribution Width (RDW)	15.1	%		11.4-16.3

Preliminary Report of Findings

Complete Blood Count				
Test	Result	Units	Flag	Reference Range
White Blood Count (WBC)	9.2	x10 ⁹ /L		4-11.6
Absolute Lymphocytes	4.2	x10 ⁹ /L		0.6-6.1
Absolute Monocytes	7.2	x10 ⁹ /L		3.8-11.6
Absolute Neutrophils	1.0	x10 ⁹ /L		0.2-1.5
Absolute Eosinophils	0.5	x10 ⁹ /L		0.0-0.9
Absolute Basophils*	0.1	x10 ⁹ /L		0.0-0.2
Lymphocytes Percentage	15.1	%		14.1-47.6
Monocytes Percentage	4.2	%		3.8-11.6
Neutrophils Percentage	55.1	%		40.9-78.1
Eosinophils Percentage	6.3	%		0.6-7.3
Basophils Percentage*	1.7	%		0.1-2.5
Platelet Count	45	x10 ⁹ /L		39.8-78.1
Mean Platelet Volume (MPV)	8.2	fL		6.8-10.2
---Test not done				
Please follow up with a health care provider for Complete Blood Count.				
*This finding was not confirmed by microscopy and follow-up may be necessary.				

Additional Tests			
Test	Result	Flag	Reference Range
Urine Pregnancy	Negative		
--Test not done			

Laboratory Information

The Clinical Laboratory Improvement Amendments of 1988 (CLIA) regulations include federal standards applicable to all U.S. facilities or sites that test human specimens for health assessment or to diagnose, prevent, or treat disease.

The following CLIA-certified laboratories performed the named tests on biologic specimens.

NHANES Mobile Examination Center Laboratory National Center for Health Statistics 3311 Toledo Road Hyattsville, MD 20782	Complete blood count Urine pregnancy (via the Beckman Coulter ICON 25 hCG urinary pregnancy test)
---	--



D

National Health and Nutrition Examination Survey

January 25, 2025

William Cooper
1234 Main Street
First, LA 70123

To the Parent or Guardian of William Cooper,

The results of the tests William completed during their visit to the Mobile Exam Center on January 25, 2025 are attached. These are William's initial laboratory results. You will receive a final report of William's exam findings in 3 to 4 months. These exams are not intended to be a complete health exam or replace William's visits to their health care provider.

Some of the NHANES exams and tests are usually done with people who have specific health problems. William's results may show something abnormal but do not represent an illness. If you take William's results to William's health care provider, they may recommend other tests that may or may not identify a health concern. You will be responsible for any costs associated with these additional tests.

You are responsible for securing William's test results. If you do not want anyone else to see their results, keep them secure so no one else can review them. As promised in our confidentiality agreement, we do not report these results to health care providers or to public health departments.

If you have any questions regarding William's results, please feel free to contact me toll-free between 9 am and 5 pm Eastern Time, Monday through Friday, at 1-800-452-6115 (press 1 for English and press 2 for Spanish).

Sincerely,

Duong Nguyen, DO
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

Enclosure

12345
{OMB NUMBER}
{OMB EXP DATE}





Preliminary Report of Findings

Date of Examination: January 25, 2025
Participant Name: William Cooper
Participant Age at Exam: 8 years

Participant Gender: Male
SP ID: 12345

Body Measurements		
William's body measurements were		
Weight	110 lbs 9 oz	Based on the 2000 CDC BMI-for-age growth chart curves for boys and girls, considering William's age, gender and height, their weight is above the range of a healthy weight, and William may have obesity.
Height	4 feet 10 inches	
Body Mass Index	23 kg/m ²	
Waist Circumference	32.6 inches	

For additional information about child and teen BMI, please see: <https://www.cdc.gov/nutrition/>.

Blood Pressure & Heart Rate	
William's measurements were	
Systolic Blood Pressure: 1114 mm/hg	William's blood pressure was elevated. Based on national guidelines for the treatment of hypertension, the blood pressure should have been rechecked by a health care provider within 6 months of the Mobile Exam Center examination.*
Diastolic Blood Pressure: 62 mm/hg	
Resting Pulse Rate: 88 Beats/ min	
* Based on the Clinical Practice Guidelines for Screening and Management of High Blood Pressure in Children and Adolescents Subcommittee on screening and Management of High Blood Pressure in children. <i>Pediatrics</i> . 2017;140(3) e201071904	

For additional information about means to prevent and managing high blood pressure, please see: https://www.cdc.gov/bloodpressure/prevent_manage.html.

Visual Acuity
We have done a quick check of William's vision. Our exam is not as precise as an eye exam done by an eye doctor. These values may differ from a vision exam William may have had by an ophthalmologist, optometrist, or optician.
Based on the examination, when wearing your glasses:
William's right eye distance vision is 20/30. William's left eye distance vision is 20/25.
This level of vision is below normal. If you were not previously aware of this, and have not done so already, William should follow up with their health or eye care provider to have a full examination and perhaps improve their vision.

For additional information about visual acuity, please see: <https://www.cdc.gov/visionhealth/>.

Preliminary Report of Findings

Oral Health Exam

During the NHANES health exam, an oral health assessment was completed by a dental hygienist. The oral health assessment of NHANES is not intended to be a substitute for the exam provided by your dentist or oral health provider. The sNHANES oral health assessment did not include a comprehensive dental history or x-rays.

The dental examiner recommends that William:	See a dentist within the next 2 weeks.
The dental examiner observed the following conditions:	Decayed teeth/dental restoration issue. Clinical impression of soft tissue condition.

For more information about maintaining your oral health see <https://www.cdc.gov/oralhealth/basics/index.html>.

Audiometry Acuity

Right Ear	The test indicates normal low frequencies hearing and a mild high frequency hearing loss.
Left Ear	The test indicates normal low frequencies hearing and a mild high frequency hearing loss.

The softest sounds William is able to hear are called hearing thresholds. William's thresholds at different frequencies (itches) are reported in the table below. The lower-pitched sounds are toward the left of the table and the higher-pitched sounds are toward the right. Smaller numbers mean quieter sounds and therefore indicate better hearing. Values of 20 dB or less are considered normal hearing for children.

Hearing Levels by Ear and Frequency (Air Conduction) per dB HL

Frequency (Hz)	500	1,000	2,000	3,000	4,000	6,000	8,000
Right Ear	10	15	20	30	40	30	30
Left Ear	20	20	20	30	40	40	30

This kind of hearing loss could cause your child to miss some speech sounds to have difficulty hearing speech.

The audiometry test can identify a hearing problem but cannot determine the cause of hearing loss.

It is recommended that William sees a health care provider regarding their hearing loss if they have not already done so.

For additional information on maintaining hearing, please see <https://www.cdc.gov/hearingloss/default.html>.

Complete Blood Count

Test	Result	Units	Flag	Reference Range
Red Blood Count (RBC)	3.7	x10 ¹² /L		3.5-5.34
Hematocrit	30	%	Low	32-45.9
Hemoglobin	9	g/dL	Low	10.6-15.6
Mean Corpuscular Volume (MCV)	88.2	fL		74.6-98.2
Mean Corpuscular Hemoglobin (MCH)	27.0	pg		24.3-33.8
MCH Concentration (MCHC)	33.1	g/dL		32.1-35.3
Red Cell Distribution Width (RDW)	15.1	%		11.4-16.3

Preliminary Report of Findings

Complete Blood Count				
Test	Result	Units	Flag	Reference Range
White Blood Count (WBC)	9.2	x10 ⁹ /L		4-11.6
Absolute Lymphocytes	4.2	x10 ⁹ /L		0.6-6.1
Absolute Monocytes	7.2	x10 ⁹ /L		3.8-11.6
Absolute Neutrophils	1.0	x10 ⁹ /L		0.2-1.5
Absolute Eosinophils	0.5	x10 ⁹ /L		0.0-0.9
Absolute Basophils*	0.1	x10 ⁹ /L		0.0-0.2
Lymphocytes Percentage	15.1	%		14.1-47.6
Monocytes Percentage	4.2	%		3.8-11.6
Neutrophils Percentage	55.1	%		40.9-78.1
Eosinophils Percentage	6.3	%		0.6-7.3
Basophils Percentage*	1.7	%		0.1-2.5
Platelet Count	45	x10 ⁹ /L		39.8-78.1
Mean Platelet Volume (MPV)	8.2	fL		6.8-10.2
---Test not done				
Please follow up with a health care provider for Complete Blood Count.				
*This finding was not confirmed by microscopy and follow-up may be necessary.				

Preliminary Report of Findings

Laboratory Information

The Clinical Laboratory Improvement Amendments of 1988 (CLIA) regulations include federal standards applicable to all U.S. facilities or sites that test human specimens for health assessment or to diagnose, prevent, or treat disease.

The following CLIA-certified laboratories performed the named tests on biologic specimens.

NHANES Mobile Examination Center Laboratory National Center for Health Statistics 3311 Toledo Road Hyattsville, MD 20782	Complete blood count
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Early Reporting Letter – Hepatitis B Adult Page 1 of 2

{SP FIRST NAME} {SP LAST NAME}
{SP ADDRESS}
{CITY, STATE ZIP MAILING ADDRESS}

{DATE}

Dear {SP FIRST NAME},

Recently, you took part in the National Health and Nutrition Examination Survey (NHANES). The survey is run by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention (CDC). As part of this exam, your blood was tested for the hepatitis B virus. Your blood sample taken on {SP Exam Date}, shows you have a current or previous infection with the hepatitis B virus, even though you may never have felt sick. Having received the vaccine for hepatitis B would NOT cause this test to be positive. You may or may not still have the virus in your blood.

Some people with hepatitis B may also have hepatitis D, but this is uncommon in the United States. Because you are hepatitis B–positive, your blood was also tested for the hepatitis D virus. We will not know the results of the hepatitis D test for 3 to 4 months. If the hepatitis D test is positive, you will receive a notification informing you of the positive hepatitis D result.

If no one has told you before that you had the virus, we **strongly recommend** you take this letter to your health care provider as soon as you can. Your provider may want to do more tests to find out whether the virus has done any damage to your liver and may want to prescribe treatment for hepatitis B. It is also important to discuss how to prevent spreading the disease to other people. You may obtain other information on hepatitis B by contacting these resources:

CDC: <https://www.cdc.gov/hepatitis/hbv/index.htm>

American Liver Foundation: 1-800-465-4837, <https://liverfoundation.org/>

We urge you to follow up with your own health care provider regarding these results. The NHANES program will not pay for any follow-up tests or care you may need, but we will be available to talk with you or your provider about your results and answer any questions.

You are responsible for securing your test results. If you do not want anyone else to review your results, place them in a secure place where no one else can review them. As promised in our confidentiality agreement, we do not report these results to health care providers or to public health departments.





Early Reporting Letter – Hepatitis B Adult Page 2 of 2

You can reach me toll-free from 9 am to 5 pm Eastern Time at 1-800-452-6115 (press 1 for English and press 2 for Spanish).

Sincerely,

Duong Nguyen, D.O.
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

Enclosure

{SP ID}
{OMB NUMBER}
{OMB EXP DATE}

The following CLIA-certified laboratory performed the hepatitis B virus test:

Division of Viral Hepatitis
National Center for HIV, Viral Hepatitis, STD, and TB Prevention
Centers for Disease Control and Prevention
1600 Clifton Road NE, Mailstop US12-3
Atlanta, GA 30329-4018

All Hepatitis B Early Reports are accompanied by one of the included flyers:

[Hepatitis B General Information](#) is available in English or Spanish and was most recently updated by CDC in 2016.

[Living with Hepatitis B](#) is available in multiple languages and was most recently updated by CDC in 2015.

HEPATITIS B

General Information

What is hepatitis?

“Hepatitis” means inflammation of the liver. The liver is a vital organ that processes nutrients, filters the blood, and fights infections. When the liver is inflamed or damaged, its function can be affected. Heavy alcohol use, toxins, some medications, and certain medical conditions can cause hepatitis. However, hepatitis is most often caused by a virus. In the United States, the most common types of viral hepatitis are Hepatitis A, Hepatitis B, and Hepatitis C.



The only way to know if you have Hepatitis B is to get tested.

What is Hepatitis B?

Hepatitis B can be a serious liver disease that results from infection with the Hepatitis B virus. **Acute Hepatitis B** refers to a short-term infection that occurs within the first 6 months after someone is infected with the virus. The infection can range in severity from a mild illness with few or no symptoms to a serious condition requiring hospitalization. Some people, especially adults, are able to clear, or get rid of, the virus without treatment. People who clear the virus become immune and cannot get infected with the Hepatitis B virus again.

Chronic Hepatitis B refers to a lifelong infection with the Hepatitis B virus. The likelihood that a person develops a chronic infection depends on the age at which someone becomes infected. Up to 90% of infants infected with the Hepatitis B virus will develop a chronic infection. In contrast, about 5% of adults will develop chronic Hepatitis B. Over time, chronic Hepatitis B can cause serious health problems, including liver damage, cirrhosis, liver cancer, and even death.

How is Hepatitis B spread?

The Hepatitis B virus is spread when blood, semen, or other body fluids from an infected person enters the body of someone who is not infected. The virus can be spread through:

- **Sex with an infected person.** Among adults, Hepatitis B is often spread through sexual contact.
- **Injection drug use.** Sharing needles, syringes, and any other equipment to inject drugs with someone infected with Hepatitis B can spread the virus.
- **Outbreaks.** While uncommon, poor infection control has resulted in outbreaks of Hepatitis B in healthcare settings.
- **Birth.** Hepatitis B can be passed from an infected mother to her baby at birth. Worldwide, most people with Hepatitis B were infected with the virus as an infant.

Hepatitis B is **not** spread through breastfeeding, sharing eating utensils, hugging, kissing, holding hands, coughing, or sneezing. Unlike some forms of hepatitis, Hepatitis B is also not spread by contaminated food or water.

What are the symptoms of Hepatitis B?

Many people with Hepatitis B do not have symptoms and do not know they are infected. If symptoms occur, they can include: fever, feeling tired, not wanting to eat, upset stomach, throwing up, dark urine, grey-colored stool, joint pain, and yellow skin and eyes.

When do symptoms occur?

If symptoms occur with an acute infection, they usually appear within 3 months of exposure and can last up to 6 months. If symptoms occur with chronic Hepatitis B, they can take years to develop and can be a sign of advanced liver disease.

Continued on next page



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

How would you know if you have Hepatitis B?

The only way to know if you have Hepatitis B is to get tested. Blood tests can determine if a person has been infected and cleared the virus, is currently infected, or has never been infected.

Who should get tested for Hepatitis B and why?

CDC develops recommendations for testing based upon a variety of different factors. Here is a list of people who should get tested. The results will help determine the next best steps for vaccination or medical care.

All pregnant women are routinely tested for Hepatitis B. If a woman has Hepatitis B, timely vaccination can help prevent the spread of the virus to her baby.

Household and sexual contacts of people with Hepatitis B are at risk for getting Hepatitis B. Those who have never had Hepatitis B can benefit from vaccination.

People born in certain parts of the world that have increased rates of Hepatitis B. Testing helps identify those who are infected so that they can receive timely medical care.

People with certain medical conditions should be tested, and get vaccinated if needed. This includes people with HIV infection, people who receive chemotherapy and people on hemodialysis.

People who inject drugs are at increased risk for Hepatitis B but testing can tell if someone is infected or could benefit from vaccination to prevent getting infected with the virus.

Men who have sex with men have higher rates of Hepatitis B. Testing can identify unknown infections or let a person know that they can benefit from vaccination.

How is Hepatitis B treated?

For those with acute Hepatitis B, doctors usually recommend rest, adequate nutrition, fluids, and close medical monitoring. Some people may need to be hospitalized. People living with chronic Hepatitis B should be evaluated for liver problems and monitored on a regular basis. Treatments are available that can slow down or prevent the effects of liver disease.

Can Hepatitis B be prevented?

Yes. The best way to prevent Hepatitis B is by getting vaccinated. The Hepatitis B vaccine is typically given as a series of 3 shots over a period of 6 months. The entire series is needed for long-term protection.

Who should get vaccinated against Hepatitis B?

All infants are routinely vaccinated for Hepatitis B at birth, which has led to dramatic declines of new Hepatitis B cases in the US and many parts of the world. The vaccine is also recommended for people living with someone infected with Hepatitis B, travelers to certain countries, and healthcare and public safety workers exposed to blood. People with high-risk sexual behaviors, men who have sex with men, people who inject drugs, and people who have certain medical conditions, including diabetes, should talk to their doctor about getting vaccinated.

For more information

Talk to your doctor, call your health department, or visit www.cdc.gov/hepatitis.

Living with Hepatitis B

What is Hepatitis B?

Hepatitis B is a liver disease. It is caused by the Hepatitis B virus. For some people who get Hepatitis B, the virus stays in the body, causing a lifelong illness. Hepatitis B can cause serious health problems over time. These problems can include liver cancer and liver failure.

How is Hepatitis B spread?

Hepatitis B is spread when someone comes in contact with blood from a person who has the disease. Most people born in Asia who have Hepatitis B were infected as infants or young children. Hepatitis B can be passed from an infected mother to her baby at birth or from a family member to young children.

Hepatitis B is not a genetic disease. People also do not get Hepatitis B from sharing meals, bowls or utensils with someone who has the disease. Hepatitis B is not spread through breastfeeding, hugging, kissing, holding hands, coughing, or sneezing.



If you have Hepatitis B, see a doctor regularly to take care of your health.

What are the symptoms of Hepatitis B?

Most people who have Hepatitis B do not know they have it. The disease does not always cause symptoms. Hepatitis B can stay hidden in the body. Many people can live with Hepatitis B for many years without feeling sick. Still, liver damage from the disease can take place during this time.

How serious is Hepatitis B?

Hepatitis B can become very serious. For some people, this disease leads to liver damage, like liver failure or cancer.

How is Hepatitis B treated?

It is important to be checked regularly by a doctor experienced in treating Hepatitis B. Many people with Hepatitis B see their doctor one to two times a year for an exam, blood tests, and liver tests. The doctor will use these tests to help decide what medical care is needed. Medications, called antivirals, can be used to treat many people with Hepatitis B. However, these medications may not help everyone. Some people live with Hepatitis B for many years before needing to take medications. Talk to your doctor about the best treatment for you and if medication would help. Your doctor will look at the condition of your liver and other health problems you might have.

How do I take care of my liver?

- Check with your doctor before taking any prescription, over-the-counter medications, supplements or vitamins. Some drugs, such as certain pain medications, can potentially damage the liver.
- Avoid alcohol since it can increase the speed of liver damage.
- Ask your doctor if you should get the Hepatitis A vaccine.

How do I protect my family members from getting Hepatitis B?

People who find out they have Hepatitis B can also keep other family members healthy. Doctors will want to test all family members of people with Hepatitis B. The test involves a simple blood test that takes only a small amount of blood from a person's arm.

Why should my family get tested for Hepatitis B?

Family members who have Hepatitis B should see a doctor. Other family members who do not have the disease should get the Hepatitis B vaccine. The vaccine is safe and protects people who have never had Hepatitis B from getting infected. This helps prevent liver disease and liver cancer that can come from getting Hepatitis B.





Letter – Hepatitis D Adult Page 1 of 2

{SP FIRST NAME} {SP LAST NAME}
{SP ADDRESS}
{CITY, STATE ZIP MAILING ADDRESS}

{DATE}

Dear {SP FIRST NAME},

Recently, you took part in the National Health and Nutrition Examination Survey (NHANES). The survey is run by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention (CDC). As part of this exam, your blood was tested for the hepatitis D virus and hepatitis B virus.

We notified you of your positive hepatitis B virus test on {HBV Letter date} and informed you that your blood was also tested for hepatitis D virus because of your positive hepatitis B test. Your blood sample, taken on {MEC EXAM DATE}, shows you are infected with the hepatitis D virus along with the hepatitis B virus, even though you may have never felt sick.

Hepatitis D only happens in people who also have the hepatitis B virus. You can have hepatitis D for a short time, or it can become a long-term, chronic infection. Hepatitis D can cause serious illness that can lead to lifelong liver damage in some people.

We **strongly recommend** you see your health care provider soon to discuss treatment and how to prevent spreading the disease to other people. The NHANES program will not pay for any follow-up tests or care you may require, but we will be available to talk with you or your provider about this letter and to answer any questions.

You are responsible for securing your test results. If you do not want anyone else to review your results, place them in a secure location so no one else can review them. As promised in our confidentiality agreement, we do not report these results to health care providers or to public health departments.



Letter – Hepatitis D Adult Page 2 of 2

You can reach me on our toll-free number from 9 am to 5 pm Eastern Time at 1-800-452-6115 (press 1 for English and press 2 for Spanish).

Sincerely,

Duong Nguyen, D.O.
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

Enclosure

{SP ID}
{OMB NUMBER}
{OMB EXP DATE}

The following CLIA-certified laboratory performed the hepatitis D virus test:

Division of Viral Hepatitis
National Center for HIV, Viral Hepatitis, STD, and TB Prevention
Centers for Disease Control and Prevention
1600 Clifton Road NE, Mailstop US12-3
Atlanta, GA 30329-4018

All Hepatitis D Early Reports are accompanied by this flyer developed by CDC:

[Hepatitis D](#)

[Questions and Answers for the Public.](#)

It was last updated on May 1, 2022.



Hepatitis D Questions and Answers for the Public

- What is hepatitis D?
- What is hepatitis B/hepatitis D coinfection?
- What is hepatitis D superinfection?
- How common is hepatitis D in the United States?
- Where is hepatitis D most common?
- How is hepatitis D spread?
- Besides contact with blood and body fluids from an infected person, are there other ways I could get hepatitis D?
- Who is at risk for hepatitis D?
- Am I at risk for hepatitis D if I was vaccinated against hepatitis B?
- Who is more likely to have long-term health problems, like progressive liver damage, following hepatitis D virus infection?
- What are the signs and symptoms of hepatitis D?
- Are the symptoms of coinfection different than symptoms of superinfection?
- How do I find out if I'm infected with the hepatitis D virus?
- How is hepatitis D treated?
- How can I prevent hepatitis D?

What is hepatitis D?

Hepatitis D is a liver infection caused by the hepatitis D virus. Only people infected with the hepatitis B virus can get hepatitis D. They can become infected with both viruses at the same time (known as “[coinfection](#)”) or get hepatitis D after first being infected with hepatitis B virus (known as “[superinfection](#)”). Hepatitis D can cause severe symptoms and serious illness that can lead to life-long liver damage and even death.

What is hepatitis B/hepatitis D coinfection?

People who get infected with both hepatitis B and hepatitis D at the same time are considered to be coinfecting. Coinfection with hepatitis B and hepatitis D can cause serious, short-term health problems and even liver failure, but it usually does not lead to life-long illness.

What is hepatitis D superinfection?

Superinfection happens when people get hepatitis D after having been first infected with the hepatitis B virus. This type of infection is more likely to result in long-term illness, including rapid development of liver fibrosis, liver failure, and even death.

How common is hepatitis D in the United States?

Hepatitis D is considered to be uncommon in the United States. However, the number of people with hepatitis D is unknown, because this infection is not tracked by public health departments or by CDC.

Where is hepatitis D most common?

Hepatitis D is most common in Eastern Europe, Southern Europe, the Mediterranean region, the Middle East, West and Central Africa, East Asia, and the Amazon Basin in South America.

How is hepatitis D spread?

You can only get hepatitis D after coming into contact with the blood or body fluids of someone who is infected with the hepatitis D virus. This can happen through

- having sex with an infected person
- sharing needles, syringes, or any other equipment used to prepare or inject drugs
- birth to an infected mother (although this is rare)
- contact with blood from the open sores of an infected person
- needle sticks or exposures to sharp instruments
- sharing personal items (e.g., razors and toothbrushes) that may have come in contact with an infected person's blood.

Besides contact with blood and body fluids from an infected person, are there other ways I could get hepatitis D?

No. The hepatitis D virus is not spread through food or water, sharing eating utensils, breastfeeding, hugging, kissing, hand holding, coughing, or sneezing.

Who is at risk for hepatitis D?

People at risk for hepatitis D are also at risk for hepatitis B. You may be at increased risk if you are

- infected with the hepatitis B virus
- an injection-drug user
- a sex partner of someone infected with the hepatitis B virus and/or hepatitis D virus
- coinfecting with HIV and the hepatitis B virus
- a man who has sex with men

Am I at risk for hepatitis D if I was vaccinated against hepatitis B?

No. People who get the hepatitis B vaccine are also protected against hepatitis D.

Who is more likely to have long-term health problems, like progressive liver damage, following hepatitis D virus infection?

People who get hepatitis D after being infected with the hepatitis B virus (“superinfection”) are much more likely to experience liver damage, and even death, from their infection than those who get both infections at the same time (“coinfection”).

What are the signs and symptoms of hepatitis D?

People with hepatitis D can have more severe symptoms than those who are infected with hepatitis B alone. The signs and symptoms of hepatitis D usually appear 3–7 weeks after infection with the hepatitis D virus. They include:

- Fever
- Fatigue
- Loss of appetite
- Nausea
- Vomiting
- Abdominal pain
- Dark urine
- Clay-colored stool
- Joint pain
- Jaundice

Are the symptoms of coinfection different than symptoms of superinfection?

Yes. People who get infected with both viruses at the same time (“coinfection”) can have distinct sets of symptoms during two separate time periods. This happens because symptoms of hepatitis B may occur at a different time than those of hepatitis D. People who get hepatitis D after first being infected with the hepatitis B virus (“superinfection”) usually experience rapid and severe symptoms. This type of infection can lead to serious long-term health outcomes, like liver disease and death.

How do I find out if I’m infected with the hepatitis D virus?

If you are experiencing [symptoms](#) of hepatitis D, visit your health-care provider. A blood test is needed to detect infection with the virus that causes hepatitis D.

How is hepatitis D treated?

A prescription medication called interferon can help some patients, and new treatments are being studied. People with end-stage liver disease as a result of hepatitis D may need a liver transplant.

How can I prevent hepatitis D?

To prevent hepatitis D, you can get vaccinated against hepatitis B. Although no vaccine is available for hepatitis D, getting the hepatitis B vaccine also protects you from hepatitis D.



Early Reporting Letter – Hepatitis B Child Page 1 of 2

Parent/Guardian of {SP FIRST NAME} {SP LAST NAME}
 {SP ADDRESS}
 {CITY, STATE ZIP MAILING ADDRESS}

{DATE}

To the Parent/Guardian of {SP FIRST NAME} {SP LAST NAME},

Recently, {SP FIRST NAME} took part in the National Health and Nutrition Examination Survey (NHANES). The survey is run by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention (CDC). As part of this exam, {SP FIRST NAME}'s blood was tested for the hepatitis B virus. {SP FIRST NAME}'s blood sample taken on {MEC EXAM DATE} shows that {SP FIRST NAME} has a current or previous infection with the hepatitis B virus, even though they may have never felt sick. Having received the vaccine for hepatitis B would NOT cause this test to be positive. {SP FIRST NAME} may or may not still have the virus in their blood.

Some people with hepatitis B may also have hepatitis D, but this is uncommon in the United States. Because {SP FIRST NAME} is hepatitis B–positive, their blood will also be tested for the hepatitis D virus. We will not know the results of the hepatitis D test for 3 to 4 months. If {SP FIRST NAME}'s hepatitis D test is positive, we will inform you.

If no one has told {SP FIRST NAME} before that they had the virus, we **strongly recommend** this letter be taken to their health care provider as soon as possible. {SP FIRST NAME}'s provider may want to do more tests to find out whether the virus has done any damage to {SP FIRST NAME}'s liver and discuss possible treatment for hepatitis B. It will be also important for {SP FIRST NAME} to understand how to prevent spreading the disease to other people. More information on hepatitis B is available from these resources:

CDC: <https://www.cdc.gov/hepatitis/hbv/index.htm>

American Liver Foundation: 1-800-465-4837, <https://liverfoundation.org/>

We urge you to follow up with {SP FIRST NAME}'s health care provider regarding these results. The NHANES program will not pay for any follow-up tests or care that may be needed, but we will be available to talk with you, {SP FIRST NAME}, or their provider about these results and answer any questions.

You are responsible for securing {SP FIRST NAME}'s results. If you do not want anyone else to review {SP FIRST NAME}'s results, place them in a secure place where no one else can review them. As promised in our confidentiality agreement, we do not report these results to health care providers or to public health departments.





Early Reporting Letter – Hepatitis B Child Page 2 of 2

You can reach me toll-free from 9 am to 5 pm Eastern Time at 1-800-452-6115 (press 1 for English and press 2 for Spanish).

Sincerely,

Duong Nguyen, D.O.
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

Enclosure

{SP ID}
{OMB NUMBER}
{OMB EXP DATE}

The following CLIA-certified laboratory performed the hepatitis B virus test:

Division of Viral Hepatitis
National Center for HIV, Viral Hepatitis, STD, and TB Prevention
Centers for Disease Control and Prevention
1600 Clifton Road NE, Mailstop US12-3
Atlanta, GA 30329-4018

All Hepatitis B Early Reports are accompanied by one of the included flyers:

[Hepatitis B General Information](#) is available in English or Spanish and was most recently updated by CDC in 2016.

[Living with Hepatitis B](#) is available in multiple languages and was most recently updated by CDC in 2015.

HEPATITIS B

General Information

What is hepatitis?

“Hepatitis” means inflammation of the liver. The liver is a vital organ that processes nutrients, filters the blood, and fights infections. When the liver is inflamed or damaged, its function can be affected. Heavy alcohol use, toxins, some medications, and certain medical conditions can cause hepatitis. However, hepatitis is most often caused by a virus. In the United States, the most common types of viral hepatitis are Hepatitis A, Hepatitis B, and Hepatitis C.



The only way to know if you have Hepatitis B is to get tested.

What is Hepatitis B?

Hepatitis B can be a serious liver disease that results from infection with the Hepatitis B virus. **Acute Hepatitis B** refers to a short-term infection that occurs within the first 6 months after someone is infected with the virus. The infection can range in severity from a mild illness with few or no symptoms to a serious condition requiring hospitalization. Some people, especially adults, are able to clear, or get rid of, the virus without treatment. People who clear the virus become immune and cannot get infected with the Hepatitis B virus again.

Chronic Hepatitis B refers to a lifelong infection with the Hepatitis B virus. The likelihood that a person develops a chronic infection depends on the age at which someone becomes infected. Up to 90% of infants infected with the Hepatitis B virus will develop a chronic infection. In contrast, about 5% of adults will develop chronic Hepatitis B. Over time, chronic Hepatitis B can cause serious health problems, including liver damage, cirrhosis, liver cancer, and even death.

How is Hepatitis B spread?

The Hepatitis B virus is spread when blood, semen, or other body fluids from an infected person enters the body of someone who is not infected. The virus can be spread through:

- **Sex with an infected person.** Among adults, Hepatitis B is often spread through sexual contact.
- **Injection drug use.** Sharing needles, syringes, and any other equipment to inject drugs with someone infected with Hepatitis B can spread the virus.
- **Outbreaks.** While uncommon, poor infection control has resulted in outbreaks of Hepatitis B in healthcare settings.
- **Birth.** Hepatitis B can be passed from an infected mother to her baby at birth. Worldwide, most people with Hepatitis B were infected with the virus as an infant.

Hepatitis B is **not** spread through breastfeeding, sharing eating utensils, hugging, kissing, holding hands, coughing, or sneezing. Unlike some forms of hepatitis, Hepatitis B is also not spread by contaminated food or water.

What are the symptoms of Hepatitis B?

Many people with Hepatitis B do not have symptoms and do not know they are infected. If symptoms occur, they can include: fever, feeling tired, not wanting to eat, upset stomach, throwing up, dark urine, grey-colored stool, joint pain, and yellow skin and eyes.

When do symptoms occur?

If symptoms occur with an acute infection, they usually appear within 3 months of exposure and can last up to 6 months. If symptoms occur with chronic Hepatitis B, they can take years to develop and can be a sign of advanced liver disease.

Continued on next page



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

How would you know if you have Hepatitis B?

The only way to know if you have Hepatitis B is to get tested. Blood tests can determine if a person has been infected and cleared the virus, is currently infected, or has never been infected.

Who should get tested for Hepatitis B and why?

CDC develops recommendations for testing based upon a variety of different factors. Here is a list of people who should get tested. The results will help determine the next best steps for vaccination or medical care.

All pregnant women are routinely tested for Hepatitis B. If a woman has Hepatitis B, timely vaccination can help prevent the spread of the virus to her baby.

Household and sexual contacts of people with Hepatitis B are at risk for getting Hepatitis B. Those who have never had Hepatitis B can benefit from vaccination.

People born in certain parts of the world that have increased rates of Hepatitis B. Testing helps identify those who are infected so that they can receive timely medical care.

People with certain medical conditions should be tested, and get vaccinated if needed. This includes people with HIV infection, people who receive chemotherapy and people on hemodialysis.

People who inject drugs are at increased risk for Hepatitis B but testing can tell if someone is infected or could benefit from vaccination to prevent getting infected with the virus.

Men who have sex with men have higher rates of Hepatitis B. Testing can identify unknown infections or let a person know that they can benefit from vaccination.

How is Hepatitis B treated?

For those with acute Hepatitis B, doctors usually recommend rest, adequate nutrition, fluids, and close medical monitoring. Some people may need to be hospitalized. People living with chronic Hepatitis B should be evaluated for liver problems and monitored on a regular basis. Treatments are available that can slow down or prevent the effects of liver disease.

Can Hepatitis B be prevented?

Yes. The best way to prevent Hepatitis B is by getting vaccinated. The Hepatitis B vaccine is typically given as a series of 3 shots over a period of 6 months. The entire series is needed for long-term protection.

Who should get vaccinated against Hepatitis B?

All infants are routinely vaccinated for Hepatitis B at birth, which has led to dramatic declines of new Hepatitis B cases in the US and many parts of the world. The vaccine is also recommended for people living with someone infected with Hepatitis B, travelers to certain countries, and healthcare and public safety workers exposed to blood. People with high-risk sexual behaviors, men who have sex with men, people who inject drugs, and people who have certain medical conditions, including diabetes, should talk to their doctor about getting vaccinated.

For more information

Talk to your doctor, call your health department, or visit www.cdc.gov/hepatitis.

Living with Hepatitis B

What is Hepatitis B?

Hepatitis B is a liver disease. It is caused by the Hepatitis B virus. For some people who get Hepatitis B, the virus stays in the body, causing a lifelong illness. Hepatitis B can cause serious health problems over time. These problems can include liver cancer and liver failure.

How is Hepatitis B spread?

Hepatitis B is spread when someone comes in contact with blood from a person who has the disease. Most people born in Asia who have Hepatitis B were infected as infants or young children. Hepatitis B can be passed from an infected mother to her baby at birth or from a family member to young children.

Hepatitis B is not a genetic disease. People also do not get Hepatitis B from sharing meals, bowls or utensils with someone who has the disease. Hepatitis B is not spread through breastfeeding, hugging, kissing, holding hands, coughing, or sneezing.



If you have Hepatitis B, see a doctor regularly to take care of your health.

What are the symptoms of Hepatitis B?

Most people who have Hepatitis B do not know they have it. The disease does not always cause symptoms. Hepatitis B can stay hidden in the body. Many people can live with Hepatitis B for many years without feeling sick. Still, liver damage from the disease can take place during this time.

How serious is Hepatitis B?

Hepatitis B can become very serious. For some people, this disease leads to liver damage, like liver failure or cancer.

How is Hepatitis B treated?

It is important to be checked regularly by a doctor experienced in treating Hepatitis B. Many people with Hepatitis B see their doctor one to two times a year for an exam, blood tests, and liver tests. The doctor will use these tests to help decide what medical care is needed. Medications, called antivirals, can be used to treat many people with Hepatitis B. However, these medications may not help everyone. Some people live with Hepatitis B for many years before needing to take medications. Talk to your doctor about the best treatment for you and if medication would help. Your doctor will look at the condition of your liver and other health problems you might have.

How do I take care of my liver?

- Check with your doctor before taking any prescription, over-the-counter medications, supplements or vitamins. Some drugs, such as certain pain medications, can potentially damage the liver.
- Avoid alcohol since it can increase the speed of liver damage.
- Ask your doctor if you should get the Hepatitis A vaccine.

How do I protect my family members from getting Hepatitis B?

People who find out they have Hepatitis B can also keep other family members healthy. Doctors will want to test all family members of people with Hepatitis B. The test involves a simple blood test that takes only a small amount of blood from a person's arm.

Why should my family get tested for Hepatitis B?

Family members who have Hepatitis B should see a doctor. Other family members who do not have the disease should get the Hepatitis B vaccine. The vaccine is safe and protects people who have never had Hepatitis B from getting infected. This helps prevent liver disease and liver cancer that can come from getting Hepatitis B.





Letter – Hepatitis D Child Page 1 of 2

Parent or Guardian of {SP FIRST NAME} {SP LAST NAME}
{SP ADDRESS}
{CITY, STATE ZIP MAILING ADDRESS}

{DATE}

To the Parent or Guardian of {SP FIRST NAME} {SP LAST NAME},

Recently, {SP FIRST NAME} took part in the National Health and Nutrition Examination Survey (NHANES). The survey is run by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention. As part of this exam, {SP FIRST NAME}'s blood was tested for the hepatitis D virus and hepatitis B virus.

We notified you of {SP FIRST NAME}'s positive hepatitis B virus test on {HBV Letter Date}. The letter explained that {SP FIRST NAME}'s blood was also tested for the hepatitis D virus because they are hepatitis B–positive. {SP FIRST NAME}'s blood sample taken on {MEC EXAM DATE} shows {SP FIRST NAME} is infected with the hepatitis D virus along with the hepatitis B virus, even though {SP FIRST NAME} may have never felt sick.

Hepatitis D only happens in people who also have the hepatitis B virus. You can have hepatitis D for a short time, or it can become a long-term, chronic infection. Hepatitis D can cause serious illness that can lead to lifelong liver damage in some people.

We **strongly recommend** {SP FIRST NAME} be seen by their own provider for further testing, to discuss treatment and how to prevent spreading the disease to other people. The NHANES program will not pay for any follow-up tests or care {SP FIRST NAME} may require, but we will be available to talk with you and {SP FIRST NAME} or their provider to answer any questions.

You are responsible for securing {SP FIRST NAME}'s test results. If you do not want anyone else to review {SP FIRST NAME}'s results, place them in a secure place where no one else can review them. As promised in our confidentiality agreement, we do not report these results to health care providers or to public health departments.





Letter – Hepatitis D Child Page 2 of 2

You or {SP FIRST NAME} can reach me toll-free from 9 am to 5 pm Eastern Time at 1-800-452-6115 (press 1 for English and press 2 for Spanish).

Sincerely,

Duong Nguyen, D.O.
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

Enclosure

{SP ID}
{OMB NUMBER}
{OMB EXP DATE}

The following CLIA-certified laboratory performed the hepatitis D virus test:

Division of Viral Hepatitis
National Center for HIV, Viral Hepatitis, STD, and TB Prevention
Centers for Disease Control and Prevention
1600 Clifton Road NE, Mailstop US12-3
Atlanta, GA 30329-4018

All Hepatitis D Early Reports are accompanied by this flyer developed by CDC:

[Hepatitis D](#)

[Questions and Answers for the Public.](#)

It was last updated on May 1, 2022.





Hepatitis D Questions and Answers for the Public

- What is hepatitis D?
- What is hepatitis B/hepatitis D coinfection?
- What is hepatitis D superinfection?
- How common is hepatitis D in the United States?
- Where is hepatitis D most common?
- How is hepatitis D spread?
- Besides contact with blood and body fluids from an infected person, are there other ways I could get hepatitis D?
- Who is at risk for hepatitis D?
- Am I at risk for hepatitis D if I was vaccinated against hepatitis B?
- Who is more likely to have long-term health problems, like progressive liver damage, following hepatitis D virus infection?
- What are the signs and symptoms of hepatitis D?
- Are the symptoms of coinfection different than symptoms of superinfection?
- How do I find out if I'm infected with the hepatitis D virus?
- How is hepatitis D treated?
- How can I prevent hepatitis D?

What is hepatitis D?

Hepatitis D is a liver infection caused by the hepatitis D virus. Only people infected with the hepatitis B virus can get hepatitis D. They can become infected with both viruses at the same time (known as “[coinfection](#)”) or get hepatitis D after first being infected with hepatitis B virus (known as “[superinfection](#)”). Hepatitis D can cause severe symptoms and serious illness that can lead to life-long liver damage and even death.

What is hepatitis B/hepatitis D coinfection?

People who get infected with both hepatitis B and hepatitis D at the same time are considered to be coinfecting. Coinfection with hepatitis B and hepatitis D can cause serious, short-term health problems and even liver failure, but it usually does not lead to life-long illness.

What is hepatitis D superinfection?

Superinfection happens when people get hepatitis D after having been first infected with the hepatitis B virus. This type of infection is more likely to result in long-term illness, including rapid development of liver fibrosis, liver failure, and even death.

How common is hepatitis D in the United States?

Hepatitis D is considered to be uncommon in the United States. However, the number of people with hepatitis D is unknown, because this infection is not tracked by public health departments or by CDC.

Where is hepatitis D most common?

Hepatitis D is most common in Eastern Europe, Southern Europe, the Mediterranean region, the Middle East, West and Central Africa, East Asia, and the Amazon Basin in South America.

How is hepatitis D spread?

You can only get hepatitis D after coming into contact with the blood or body fluids of someone who is infected with the hepatitis D virus. This can happen through

- having sex with an infected person
- sharing needles, syringes, or any other equipment used to prepare or inject drugs
- birth to an infected mother (although this is rare)
- contact with blood from the open sores of an infected person
- needle sticks or exposures to sharp instruments
- sharing personal items (e.g., razors and toothbrushes) that may have come in contact with an infected person's blood.

Besides contact with blood and body fluids from an infected person, are there other ways I could get hepatitis D?

No. The hepatitis D virus is not spread through food or water, sharing eating utensils, breastfeeding, hugging, kissing, hand holding, coughing, or sneezing.

Who is at risk for hepatitis D?

People at risk for hepatitis D are also at risk for hepatitis B. You may be at increased risk if you are

- infected with the hepatitis B virus
- an injection-drug user
- a sex partner of someone infected with the hepatitis B virus and/or hepatitis D virus
- coinfecting with HIV and the hepatitis B virus
- a man who has sex with men

Am I at risk for hepatitis D if I was vaccinated against hepatitis B?

No. People who get the hepatitis B vaccine are also protected against hepatitis D.

Who is more likely to have long-term health problems, like progressive liver damage, following hepatitis D virus infection?

People who get hepatitis D after being infected with the hepatitis B virus ("superinfection") are much more likely to experience liver damage, and even death, from their infection than those who get both infections at the same time ("coinfection").

What are the signs and symptoms of hepatitis D?

People with hepatitis D can have more severe symptoms than those who are infected with hepatitis B alone. The signs and symptoms of hepatitis D usually appear 3–7 weeks after infection with the hepatitis D virus. They include:

- Fever
- Fatigue
- Loss of appetite
- Nausea
- Vomiting
- Abdominal pain
- Dark urine
- Clay-colored stool
- Joint pain
- Jaundice

Are the symptoms of coinfection different than symptoms of superinfection?

Yes. People who get infected with both viruses at the same time ("coinfection") can have distinct sets of symptoms during two separate time periods. This happens because symptoms of hepatitis B may occur at a different time than those of hepatitis D. People who get hepatitis D after first being infected with the hepatitis B virus ("superinfection") usually experience rapid and severe symptoms. This type of infection can lead to serious long-term health outcomes, like liver disease and death.

How do I find out if I'm infected with the hepatitis D virus?

If you are experiencing [symptoms](#) of hepatitis D, visit your health-care provider. A blood test is needed to detect infection with the virus that causes hepatitis D.

How is hepatitis D treated?

A prescription medication called interferon can help some patients, and new treatments are being studied. People with end-stage liver disease as a result of hepatitis D may need a liver transplant.

How can I prevent hepatitis D?

To prevent hepatitis D, you can get vaccinated against hepatitis B. Although no vaccine is available for hepatitis D, getting the hepatitis B vaccine also protects you from hepatitis D.



C

National Health and Nutrition Examination Survey

Early Reporting Letter Hepatitis C - Adult

{{SP FIRST NAME}} {{SP LAST NAME}}
{SP ADDRESS}
{CITY, STATE ZIP MAILING ADDRESS}

{DATE}

Dear {SP FIRST NAME},

Recently, you took part in the National Health and Nutrition Examination Survey (NHANES). The survey is run by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention (CDC). As part of this exam, we tested your blood for the hepatitis C virus. Your blood sample collected on {MEC EXAM DATE}, shows you are currently infected with the hepatitis C virus even though you may never have felt sick. If no one has told you before that you have the virus, we **strongly recommend** that you take this letter to your health care provider as soon possible. Your provider may want to do more tests to find out whether the virus has damaged your liver and talk with you about treatment for hepatitis C. It is also important for you to learn about how to prevent spreading the disease to other people.

Tell your health care provider that our laboratory is determining the genotype of the hepatitis virus; however, the result will not be available for several months. You can call us at the phone number provided below to get the result. This information may be useful in deciding which hepatitis C treatment is best for you.

More than two million Americans are infected with the hepatitis C virus. Most people who are infected carry the virus for the rest of their lives. Even though many people with the virus never feel sick, hepatitis C can lead to liver damage. We have enclosed a fact sheet with information on hepatitis C. More information on hepatitis C is available from these resources:

CDC: <https://www.cdc.gov/hepatitis>

American Liver Foundation: 1-800-465- 4837, <https://liverfoundation.org/>



U.S. CENTERS FOR DISEASE
CONTROL AND PREVENTION

You are responsible for securing your test results. If you do not want anyone else to see your results, place them in a secure location where no one else can find them. As promised in our confidentiality agreement, we will not report your results to health care providers or to public health departments.

If you have any questions, you can reach me toll-free at 1-800-452-6115 (press 1 for English and press 2 for Spanish) between 9 a.m. and 5 p.m. Eastern Time, Monday through Friday.

Sincerely,



Duong Nguyen, D.O.
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

Enclosure

{SP ID}

{OMB NUMBER}

{OMB EXP DATE}

The following CLIA-certified laboratory performed the hepatitis C virus test:

Division of Viral Hepatitis
National Center for HIV, Viral Hepatitis, STD, and TB Prevention
Centers for Disease Control and Prevention
1600 Clifton Road NE, Mailstop US12-3
Atlanta, GA 30329-4018

All Hepatitis C Early Reports are accompanied by one of the included flyers.

[Hepatitis C – General Information](#) is available in English or Spanish and was most recently updated by CDC in 2020.



Early Reporting Letter – Hepatitis C Child

To Parent/Guardian of {SP FIRST NAME} {SP LAST NAME}
{SP ADDRESS}
{CITY, STATE ZIP MAILING ADDRESS}

{DATE}

To the Parent/Guardian of {SP FIRST NAME} {SP LAST NAME},

Recently, {SP FIRST NAME} took part in the National Health and Nutrition Examination Survey (NHANES). The survey is run by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention (CDC). As part of this exam {SP FIRST NAME}'s blood was tested for the hepatitis C virus. {SP FIRST NAME}'s blood sample, taken on {MEC EXAM DATE}, shows {SP FIRST NAME} is currently infected with the hepatitis C virus, even though they may never have felt sick. If no one has told you or {SP FIRST NAME} before that they have the virus, we **strongly recommend** taking this letter to their health care provider as soon possible. {SP FIRST NAME}'s provider may want to do more tests to find out whether the virus has damaged {SP FIRST NAME}'s liver and discuss treatment for hepatitis C. It is also important for {SP FIRST NAME} to learn about how to prevent spreading the disease to other people.

{SP FIRST NAME}'s health care provider should know that our laboratory is determining the genotype of the hepatitis virus; however, the result will not be available for several months. You can call us at the phone number provided below to get the result. This information may be useful in deciding which hepatitis C treatment is best for {SP FIRST NAME}.

More than 2.2 million Americans are infected with hepatitis C virus. Most persons who are infected carry the virus for the rest of their lives. Even though many people with the virus never feel sick, hepatitis C can lead to liver damage. We have enclosed a fact sheet on hepatitis C and you can find more information on the virus from these resources:

CDC: <https://www.cdc.gov/hepatitis/hcv/index.htm>

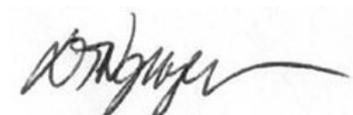
American Liver Foundation: 1-800-465- 4837, <https://liverfoundation.org/>

We urge you to help {SP FIRST NAME} follow up with their health care provider about these results. The NHANES program will not pay for any follow-up tests or care that may be needed, but we will be available to talk with you, {SP FIRST NAME}, or their provider about these results and answer any questions.

You are responsible for securing {SP FIRST NAME}'s test results. If you do not want anyone else to review {SP FIRST NAME}'s results, place them in a secure place where no one else can review them. As promised in our confidentiality agreement, we do not report these results to health care providers or to public health departments.

You can reach me toll-free from 9 a.m. to 5 p.m. at 1-800-452-6115 (press 1 for English and press 2 for Spanish).

Sincerely,



Duong Nguyen, D.O.
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

Enclosure

{SP ID}

{OMB NUMBER}

{OMB EXP DATE}

The following CLIA-certified laboratory performed the hepatitis C virus test:

Division of Viral Hepatitis
National Center for HIV, Viral Hepatitis, STD, and TB Prevention
Centers for Disease Control and Prevention
1600 Clifton Road NE, Mailstop US12-3
Atlanta, GA 30329-4018

All Hepatitis C Early Reports are accompanied by one of the included flyers.

[Hepatitis C – General Information](#) is available in English or Spanish and was most recently updated by CDC in 2020.



E

National Health and Nutrition Examination Survey

Mercury Adult Page 1 of 2

{SP FIRST NAME} {SP LAST NAME}
{SP ADDRESS}
{CITY, STATE ZIP MAILING ADDRESS}

{DATE}

Dear {SP FIRST NAME},

Recently, you took part in the National Health and Nutrition Examination Survey (NHANES). The survey is run by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention. As part of this exam, your samples were tested for mercury and were found to be above the normal limits.

	Your value	Elevated level*
<i>Total Blood Mercury</i>	<i>xx.x ug/L</i>	<i>>= 5.8 ug/L</i>
<small>* Elevated levels are based on an EPA Reference Dose below which exposures among women of reproductive age are considered to be without adverse effects. From Rice DE, Schoeny R, Mahaffrey K. Methods and rationale for derivation of a reference dose for methyl mercury by the US Environmental Protection Agency. Risk Analysis. 2003; 23:107-115.</small>		

Mercury is a metal found in our environment. The test results in the table show that you have been exposed to mercury at higher levels than would be expected. The most common cause of high mercury levels in the blood is eating a large amount of fish from waters that have high levels of mercury. Depending on your environment, there may be other reasons that your blood mercury level is high.

We **strongly recommend** you take this letter to your health care provider to discuss these results. Exposure to mercury at high levels can affect your health. The NHANES program will not pay for any follow-up tests or care you may require, but we will be available to talk with you or your providers about this letter and to answer any questions. I can be reached toll-free at 1-800-452-6115 (press 1 for English and press 2 for Spanish) between 9 am and 5 pm Eastern Time, Monday through Friday.



U.S. CENTERS FOR DISEASE
CONTROL AND PREVENTION



Mercury Adult Page 2 of 2

You are responsible for securing the test results. If you do not want anyone else to review your results, place them in a secure place so no one else can review them. As promised in our confidentiality agreement, we do not report these results to health care providers or to public health departments.

Sincerely,

Duong Nguyen, D.O.
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

Enclosure

{SP ID}
{OMB NUMBER}
{OMB EXP DATE}

The following CLIA-certified laboratory performed the mercury level test:

Centers for Disease Control and Prevention
Division of Laboratory Sciences
Inorganic and Radiation Analytical Toxicology (IRAT)
4770 Buford Hwy NE
Atlanta, GA 30341





Mercury Child Page 1 of 2

Parent or Guardian of {SP FIRST NAME} {SP LAST NAME}
 {SP ADDRESS}
 {CITY, STATE ZIP MAILING ADDRESS}

{DATE}

Dear Parent or Guardian of {SP FIRST NAME} {SP LAST NAME},

Recently, {SP FIRST NAME} took part in the National Health and Nutrition Examination Survey (NHANES). The survey is run by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention. As part of this exam, {SP FIRST NAME}'s samples were tested for mercury and were found to be above the normal limits.

	Your value	Elevated level*
<i>Total Blood Mercury</i>	<i>xx.x ug/L</i>	<i>>= 5.8 ug/L</i>
* Elevated levels are based on an EPA Reference Dose below which exposures among women of reproductive age are considered to be without adverse effects. From Rice DE, Schoeny R, Mahaffrey K. Methods and rationale for derivation of a reference dose for methyl mercury by the US Environmental Protection Agency. Risk Analysis. 2003; 23:107-115		

Mercury is a metal found in our environment. The test results in the table show that {SP FIRST NAME} has been exposed to mercury at higher levels than would be expected. The most common cause of high mercury levels in the blood is eating a large amount of fish from waters that have high levels of mercury. Depending on your environment, there may be other reasons that {SP FIRST NAME}'s blood mercury level is high.

We **strongly recommend** you take this letter to {SP FIRST NAME}'s health care provider to discuss these results. Exposure to mercury at high levels can affect {SP FIRST NAME}'s health. The NHANES program will not pay for any follow-up tests or care {SP FIRST NAME} may require, but we will be available to talk with you or {SP FIRST NAME}'s providers about this letter and to answer any questions. I can be reached toll-free at 1-800-452-6115 (press 1 for English and press 2 for Spanish) between 9 am and 5 pm Eastern Time, Monday through Friday.





Mercury Child Page 2 of 2

You are responsible for securing the test results. If you do not want anyone else to review {SP FIRST NAME}'s results, place them in a secure place so no one else can review them. As promised in our confidentiality agreement, we do not report these results to health care providers or to public health departments.

Sincerely,

Duong Nguyen, D.O.
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

Enclosure

{SP ID}
{OMB NUMBER}
{OMB EXP DATE}

The following CLIA-certified laboratory performed the mercury level test:

Centers for Disease Control and Prevention
Division of Laboratory Sciences
Inorganic and Radiation Analytical Toxicology (IRAT)
4770 Buford Hwy NE
Atlanta, GA 30341



National Health and Nutrition Examination Survey

{SP FIRST NAME}{SP LAST NAME}
{STREET MAILING ADDRESS}
{CITY, STATE ZIP MAILING ADDRESS}

{DATE}

Dear {SP FIRST NAME},

Recently, you participated in the National Health and Nutrition Examination Survey (NHANES) conducted by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention. We reviewed your test results from the examination on {MEC EXAM DATE} and found that some results were abnormal and require your immediate attention.

Hemoglobin variant trait is an inherited condition that affects the hemoglobin in your red blood cells. Hemoglobin is a protein in red blood cells. The job of hemoglobin is to carry oxygen through the body.

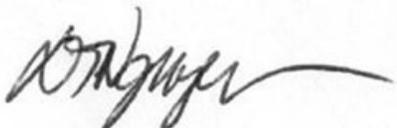
As part of your examination, we tested your blood for certain hemoglobin variants, which are caused by genetic abnormalities that affect red blood cells. Your blood sample, collected on {MEC EXAM DATE}, was found to have {XX}% Hemoglobin {S/ C/ D/ E/ F}. **If you were not already aware of this, we highly recommend that you follow up with your own health care provider.** These results could impact some aspects of your future medical care and family planning.

Hemoglobin variants are usually found in people whose families originated from areas including Africa, the Middle East, or Asia. In the United States, these variants are usually discovered during newborn screening programs. However, some people, including those born outside of the United States, may not be aware they have this condition.

People who have hemoglobin variants may experience a range of symptoms. The severity of symptoms depends on the type and percentage of variant in an individual's blood. We have provided you with the percentage of the variant in your blood. You should give this information to your health care provider when you follow up with them.

Page 2 –

The NHANES program will not pay for any follow-up tests or care you may require, but we will be available to talk with you or your health care provider about this result and answer any questions you may have. You are responsible for securing your test results. If you do not want anyone else to review your results place them in a secure place so no one else can review them. As promised with our confidentiality agreement to you, we do not report your results to health care providers or to public health departments. You can reach me at our toll-free number at 1-800-452-6115 (press 1 for English and press 2 for Spanish), Monday through Friday from 9:00 am to 5:00 pm.



Duong Nguyen, D.O.
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

{SP ID}
{OMB NUMBER}
{OMB EXP DATE}

The following CLIA-certified laboratory performed the Hemoglobin variant test:

Diabetes Diagnostic Laboratory
University of MO - Columbia
1 Hospital Dr. Rm. M765
Columbia, MO 65212



H

National Health and Nutrition Examination Survey

Parent or Guardian of {SP FIRST NAME} {SP LAST NAME}
{STREET MAILING ADDRESS}
{CITY, STATE ZIP MAILING ADDRESS}

{DATE}

Dear Parent or Guardian of {SP FIRST NAME},

Recently, {SP FIRST NAME} participated in the National Health and Nutrition Examination Survey (NHANES) conducted by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention. We reviewed your child's test results from the examination on {MEC EXAM DATE} and found that some results were abnormal and require your immediate attention.

Hemoglobin variant trait is an inherited condition that affects the hemoglobin in your red blood cells. Hemoglobin is a protein in red blood cells. The job of hemoglobin is to carry oxygen through the body.

As part of their examination, we tested {SP FIRST NAME}'s blood for certain hemoglobin variants, which are caused by genetic abnormalities that affect red blood cells. {SP FIRST NAME}'s blood sample, collected on {MEC EXAM DATE}, was found to have {XX}% Hemoglobin {S/ C/ D/ E/ F}. **If you or {SP FIRST NAME} were not already aware of this, we highly recommend that you follow up with {SP FIRST NAME}'s own health care provider.** These results could impact some aspects of {SP FIRST NAME}'s future medical care and family planning.

Hemoglobin variants are usually found in people whose families originated from areas including Africa, the Middle East, or Asia. In the United States, these variants are usually discovered during newborn screening programs. However, some people, including those born outside of the United States, may not be aware they have this condition.



U.S. CENTERS FOR DISEASE
CONTROL AND PREVENTION

People who have hemoglobin variants may experience a range of symptoms. The severity of symptoms depends on the type and percentage of variant in an individual's blood. We have provided you with the percentage of the variant in {SP FIRST NAME}'s blood. You should give this information to {SP FIRST NAME}'s health care provider when you follow up with them.

The NHANES program will not pay for any follow-up tests or care {SP FIRST NAME} may require, but we will be available to talk with you or {SP FIRST NAME}'s health care provider about this result and answer any questions you may have. You are responsible for securing {SP FIRST NAME}'s test results. If you do not want anyone else to review {SP FIRST NAME}'s results, place them in a secure place so no one else can review them. As promised with our confidentiality agreement to you, we do not report {SP FIRST NAME}'s results to health care providers or to public health departments. You can reach me at our toll-free number at 1-800-452-6115 (press 1 for English and press 2 for Spanish), Monday through Friday from 9 am to 5 pm Eastern Time.

Sincerely,



Duong Nguyen, D.O.
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

{SP ID}
{OMB NUMBER}
{OMB EXP DATE}

The following CLIA-certified laboratory performed the Hemoglobin variant test:

Diabetes Diagnostic Laboratory
University of MO - Columbia
1 Hospital Dr. Rm. M765
Columbia, MO 65212



Adults Butyrylcholinesterase

{SP FIRST NAME} {SP LAST NAME}
{SP ADDRESS}
{CITY, STATE ZIP MAILING ADDRESS}

{DATE}

Dear {SP FIRST NAME},

Recently, you took part in the National Health and Nutrition Examination Survey. The survey is run by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention. We reviewed your test results from your exam on {MEC Exam Date}. We found that some results need your attention.

	Your value	*Reference Range
Total Blood Butyrylcholinesterase	{xx.x} U/ml	≥ 0.05 U/ml
* 0.05 U/ml is the lowest reportable level of this test.		

It is important for you to know that your butyrylcholinesterase level is low as it may be important to your health. The low butyrylcholinesterase level might mean that your body takes longer to break down certain medicines used to relax muscles during general anesthesia for surgery, and you can have complications such as breathing difficulties after surgery. Certain people are born with this condition while others develop it from medications, exposure to pesticides, liver disease, pregnancy, and others. Please consult with your healthcare provider about your low butyrylcholinesterase level. Although the risk of complications is rare, it is important to tell them that you were found to have a low butyrylcholinesterase level.

The NHANES test for butyrylcholinesterase levels is a newly developed test designed to test the level of butyrylcholinesterase in the general population. This is different from the test used in clinics or hospitals that may be more specific to your health care needs. Your health care provider may want to repeat this test to confirm this level.

You are responsible for securing your test results. If you do not want anyone else to review your results, place them in a secure place so no one else can review them. As promised in our confidentiality agreement, we do not report these results to health care providers or to public health departments.

These measurements were obtained as part of a survey and do not represent a medical diagnosis.

Interpretation of these measurements must be made by an appropriately licensed health care provider.

{SP FIRST NAME} {SP LAST NAME}, {SP DOB}, Date of Exam: {MEC EXAM DATE}



The NHANES program will not pay for any follow-up tests or care you may require. However, we will be available to talk with you or your health care providers about this letter, your butyrylcholinesterase level, and to answer any questions. If you have any questions, you can reach me toll-free at 1-800-452-6115 (press 1 for English and press 2 for Spanish) between 9 am and 5 pm Eastern Time, Monday through Friday.

Sincerely,



Duong Nguyen, D.O.
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

{SP ID}
{OMB NUMBER}
{OMB EXP DATE}

The following CLIA-certified laboratory performed the butyrylcholinesterase level test:

National Center for Environmental Health
Centers for Disease Control and Prevention
4770 Buford Highway NE, MS S110-4
Atlanta, GA 30341-3717



National Health and Nutrition Examination Survey

CHILD Butyrylcholinesterase

Parent or Guardian of {SP FIRST NAME} {SP LAST NAME}
{SP ADDRESS}
{CITY, STATE ZIP MAILING ADDRESS}

{DATE}

Dear Parent or Guardian of {SP FIRST NAME} {SP LAST NAME},

Recently, {SP First Name} took part in the National Health and Nutrition Examination Survey (NHANES). The survey is run by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention. We reviewed {SP First Name}'s test results from the exam on {MEC Exam Date}. We found that some results need your attention.

	Your value	*Reference Range
Total Blood Butyrylcholinesterase	{xx.x} U/ml	≥ 0.05 U/ml
* 0.05 U/ml is the lowest reportable level of this test.		

It is important for you to know that your butyrylcholinesterase level is low as it may be important to your health. The low butyrylcholinesterase level might mean that your body takes longer to break down certain medicines used to relax muscles during general anesthesia for surgery, and you can have complications such as breathing difficulties after surgery. Certain people are born with this condition while others develop it from medications, exposure to pesticides, liver disease, pregnancy, and others. Please consult with your healthcare provider about your low butyrylcholinesterase level. Although the risk of complications is rare, it is important to tell them that you were found to have a low butyrylcholinesterase level.

The NHANES test for butyrylcholinesterase levels is a newly developed test designed to test the level of butyrylcholinesterase in the general population. This is different from the test used in clinics or hospitals that may be more specific to {SP First Name}'s health care needs. Their health care provider may want to repeat this test to confirm the level.

You are responsible for securing {SP First Name}'s test results. If you do not want anyone else to review {SP First Name}'s results, place them in a secure place so no one else can review them. As promised in our confidentiality agreement, we do not report these results to health care providers or to public health departments.

These measurements were obtained as part of a survey and do not represent a medical diagnosis.

Interpretation of these measurements must be made by an appropriately licensed health care provider.

{SP FIRST NAME} {SP LAST NAME}, {SP DOB}, Date of Exam: {MEC EXAM DATE}



The NHANES program will not pay for any follow-up tests or care {SP First Name} may require. However, we will be available to talk with you or {SP First Name}'s health care providers about this letter and to answer any questions. If you have any questions, you can reach me toll-free at 1-800-452-6115 (press 1 for English and press 2 for Spanish) between 9 am and 5 pm Eastern Time, Monday through Friday.

Sincerely,



Duong Nguyen, D.O.
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

{SP ID}
{OMB NUMBER}
{OMB EXP DATE}

The following CLIA-certified laboratory performed the butyrylcholinesterase level test:

National Center for Environmental Health
Centers for Disease Control and Prevention
4770 Buford Highway NE, MS S110-4
Atlanta, GA 30341-3717



K

National Health and Nutrition Examination Survey

Adult Urine Arsenic 1 of 4

{SP FIRST NAME} {SP LAST NAME}
{SP ADDRESS}
{CITY, STATE ZIP MAILING ADDRESS}

{DATE}

Dear {SP FIRST NAME},

Recently, you took part in the National Health and Nutrition Examination Survey (NHANES). The survey is run by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention. As part of this exam, your urine was tested for arsenic, a metal widespread in the environment. The arsenic level in your urine sample taken on {MEC Exam Date} was above the usual range of 50 ug/L.

This suggests that you were exposed to arsenic during the week before the exam. We **strongly recommend** that you take this letter to your health care provider as soon as you can to discuss if you may need additional testing or any treatment. For additional information about arsenic please see <https://www.atsdr.cdc.gov/toxfaqs/tfacts2.pdf>.

The NHANES program will not pay for any follow-up tests or care you may require, but we will be available to talk with you or your providers about this letter and to answer any questions. If you have any questions, you can reach me toll-free at 1-800-452-6115 (press 1 for English and press 2 for Spanish) between 9 am and 5 pm Eastern Time, Monday through Friday.

You are responsible for securing your test results. If you do not want anyone else to review your results, place them in a secure place so no one else can review them. As promised in our confidentiality agreement, we do not report these results to health care providers or to public health departments.

Sincerely,

Duong Nguyen, D.O.
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

Enclosure

{SP ID}
{OMB NUMBER}
{OMB EXP DATE}



U.S. CENTERS FOR DISEASE
CONTROL AND PREVENTION



National Health and Nutrition Examination Survey

Adult Urine Arsenic 2 of 4

The following CLIA-certified laboratory performed the urine level test:

Centers for Disease Control and Prevention
Division of Laboratory Sciences
Inorganic and Radiation Analytical Toxicology (IRAT)
4770 Buford Hwy NE
Atlanta, GA 30341



Adult Urine Arsenic 3 of 4

{DATE}

Regarding

Participant Name: {SP FIRST NAME} {SP LAST NAME}

Participant DOB: {MM/DD/YYYY}

Participant Gender: {Male/Female}

{SP FIRST NAME} {SP LAST NAME} has voluntarily participated in the National Health and Nutrition Examination Survey (NHANES) conducted by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention. The objective of the survey is to obtain information on the health and nutrition status of the U.S. population. The survey was performed on a random sample of individuals living in your region.

{SP FIRST NAME}'s results showed a urine arsenic level that was above the expected range, warranting this report.

Test	Participant's value	Reference range
Total urinary arsenic	{XXX} ug/L	See below

Total urinary arsenic values greater than 50 ug/L are suggestive of increased exposure to arsenic during the week before the urine collection date. The incidence of health effects is indeterminate in the range of 50–200 ug/L. On a long-term basis, the incidence of health effects is low for people who have a urinary arsenic concentration greater than 200 ug/L. However, these health effects increase with time and concentration level of exposure. The effects of chronic arsenic include skin pigmentation changes, plantar and palmar hyperkeratotic papules, peripheral vascular insufficiency, and increased incidence of skin, bladder, and lung cancers.

Urinary arsenic concentration levels will represent a person's most recent exposures (within days or weeks). The levels do not indicate length of exposure. Concentration may increase or decrease at different times depending on changes in exposure (intake), personal activities, diet, timing of specimen collection, and the influence of health conditions. People with the same intake may have differences in levels because of the influence of these factors and genetic differences.

Reference comparison values for normal populations will vary with the population and the conditions under which the study was performed. Reference comparison values may vary with age, gender, race, location, activities, analytic methods, and other factors. Urine arsenic levels in healthy adults between 5 and 50 µg/L generally correspond to whole blood arsenic levels between 2–23 µg/L. (Ref: Tietz, R.E. Ed.: Clinical Guide to Laboratory Tests. 3rd ed. Philadelphia, W.B. Saunders Col, 1995.)



National Health and Nutrition Examination Survey

Adult Urine Arsenic 4 of 4

The NHANES examination was not intended to be a complete physical examination or a substitute for routine or ongoing health care. NHANES is not authorized to administer treatment or engage in any follow-up care with the survey participants. However, we are available to answer any questions regarding this report, the examination, the results, or NHANES in general. Please feel free to contact me at the National Center for Health Statistics between 9 am and 5 pm Eastern Time, Monday through Friday, at 1-800-452-6115 (press 1 for English and press 2 for Spanish).

Sincerely,

Duong Nguyen, D.O.
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

Enclosure

{SP ID}
{OMB NUMBER}
{OMB EXP DATE}

The following CLIA-certified laboratory performed the urine level test:

Centers for Disease Control and Prevention
Division of Laboratory Sciences
Inorganic and Radiation Analytical Toxicology (IRAT)
4770 Buford Hwy NE
Atlanta, GA 30341



U.S. CENTERS FOR DISEASE
CONTROL AND PREVENTION



Child Urine Arsenic page 1 of 4

Parent or Guardian of {SP FIRST NAME} {SP LAST NAME}
{SP ADDRESS}
{CITY, STATE ZIP MAILING ADDRESS}

{DATE}

Dear Parent or Guardian of {SP FIRST NAME} {SP LAST NAME},

Recently, {SP FIRST NAME} took part in the National Health and Nutrition Examination Survey (NHANES). The survey is run by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention. As part of this exam, {SP FIRST NAME}'s urine was tested for arsenic, a metal widespread in the environment. The arsenic level in {SP FIRST NAME}'s urine sample taken on {MEC Exam Date} was above the expected range of 50 ug/L.

This suggests that {SP FIRST NAME} was exposed to arsenic during the week before their exam. We **strongly recommend** you take this letter to {SP FIRST NAME}'s health care provider as soon as you can to discuss if {SP FIRST NAME} may need additional testing or any treatment. For additional information regarding arsenic please see <https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=19&toxid=3>.

The NHANES program will not pay for any follow-up tests or care {SP FIRST NAME} may require, but we will be available to talk with you or {SP FIRST NAME}'s providers about this letter and to answer any questions. If you have any questions, you can reach me toll-free at 1-800-452-6115 (press 1 for English and press 2 for Spanish) between 9 am and 5 pm Eastern Time, Monday through Friday.

You are responsible for securing {SP FIRST NAME}'s test results. If you do not want anyone else to review {SP FIRST NAME}'s results, place them in a secure place so no one else can review them. As promised in our confidentiality agreement, we do not report these results to health care providers or to public health departments.





Child Urine Arsenic page 2 of 4

Sincerely,

Duong Nguyen, D.O.
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

Enclosure

{SP ID}
{OMB NUMBER}
{OMB EXP DATE}

The following CLIA-certified laboratory performed the urine level test:

Centers for Disease Control and Prevention
Division of Laboratory Sciences
Inorganic and Radiation Analytical Toxicology (IRAT)
4770 Buford Hwy NE
Atlanta, GA 30341





Child Urine Arsenic page 3 of 4

{DATE}

Regarding

Participant Name: {SP FIRST NAME} {SP LAST NAME}

Participant DOB: {MM/DD/YYYY}

Participant Gender: {Male/Female}

{SP FIRST NAME} {SP LAST NAME} has voluntarily participated in the National Health and Nutrition Examination Survey (NHANES) conducted by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention. The objective of the survey is to obtain information on the health and nutrition status of the U.S. population. The survey was performed on a random sample of individuals living in your region.

{SP FIRST NAME}'s results showed a urine arsenic level that was above the expected range, warranting this report.

Test	Participant's value	Reference range
Total urinary arsenic	{XXX} ug/L	< 50 ug/L

Total urinary arsenic values greater than 50 ug/L are suggestive of increased exposure to arsenic during the week before the urine collection date. The incidence of health effects is indeterminate in the range of 50–200 ug/L. On a long-term basis, the incidence of health effects is low for people who have a urinary arsenic concentration greater than 200 ug/L. However, these health effects increase with time and concentration level of exposure. The effects of chronic arsenic include skin pigmentation changes, plantar and palmar hyperkeratotic papules, peripheral vascular insufficiency, and increased incidence of skin, bladder, and lung cancers.

Urinary arsenic concentration levels will represent a person's most recent exposures (within days or weeks). The levels do not indicate length of exposure. Concentration may increase or decrease at different times depending on changes in exposure (intake), personal activities, diet, timing of specimen collection, and the influence of health conditions. People with the same intake may have differences in levels because of the influence of these factors and genetic differences.

Reference comparison values for normal populations will vary with the population and the conditions under which the study was performed. Reference comparison values may vary with age, gender, race, location, activities, analytic methods, and other factors. Urine arsenic levels in healthy adults between 5 and 50 µg/L generally correspond to whole blood arsenic levels between 2–23 µg/L. (Ref: Tietz, R.E. Ed.: Clinical Guide to Laboratory Tests. 3rd ed. Philadelphia, W.B. Saunders Col, 1995.)



Child Urine Arsenic page 4 of 4

The NHANES examination was not intended to be a complete physical examination or a substitute for routine or ongoing health care. NHANES is not authorized to administer treatment or engage in any follow-up care with the survey participants. However, we are available to answer any questions regarding this report, these results, or NHANES in general. Please feel free to contact me toll-free at 1-800-452-6115 (press 1 for English and press 2 for Spanish) between 9 am and 5 pm, Monday through Friday, Eastern Time.

Sincerely,

Duong Nguyen, D.O.
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

Enclosure

{SP ID}
{OMB NUMBER}
{OMB EXP DATE}

The following CLIA-certified laboratory performed the urine level test:

Centers for Disease Control and Prevention
Division of Laboratory Sciences
Inorganic and Radiation Analytical Toxicology (IRAT)
4770 Buford Hwy NE
Atlanta, GA 30341



National Health and Nutrition Examination Survey

{DATE}

{SP FIRST NAME} {SP LAST NAME}
 {SP ADDRESS}
 {SP CITY, STATE, ZIP MAILING ADDRESS}

Dear {SP FIRST NAME}:

Recently, you took part in the National Health and Nutrition Examination Survey (NHANES). The survey is run by the National Center for Health Statistics, part of the Centers for Disease Control and

Prevention. This test was done to know how well your lungs work by measuring how much air you breathed in, how much air you breathed out, and how quickly you breathed it out. Trained professionals evaluated your lung function test but did not have information about your lung health or general health status. Lung function testing was done using the Easy on-PC spirometer. Compared with other people of your age, sex, and height, your breathing test results were outside normal limits. Your results are consistent with {possible restriction or non-specific pattern; OR airflow obstruction; OR possible mixed pattern}.

Lung Function Testing*				
Measure	Best	LLN	z-score	% Pred
FVC (L)	{FVCBES}xx.xx	{FVCLLN}xx.xx	{FVCZ}x.xx	{FVCPRE}xxx
FEV₁ (L)	{FEVBES} xx.xx	{FEVLLN}xx.xx	{FEVZ} x.xx	{FEVPRE}xxx
FEV₁/FVC	{VCBEST} xx.xx	{VCDLLN}xx.xx	{VCBZ} x.xx	{VCBPRED} xxx
FET (s)	{FETBEST} xx.x			
FVC – forced vital capacity; FEV ₁ – forced expiratory volume in 1 second; FET – forced expiratory time; LLN – lower limit of normal; z-score – statistic describing how far the best value deviates from the predicted value; % Pred – percent of the predicted value.				
Reference values used to calculate LLN, z-score, and % Predicted are based on the Global Lung Function Initiative (GLI) Global reference equations.				
* Based on Bowerman C, Bhakta NR, Brazzale D, et al. A Race-neutral Approach to the Interpretation of Lung Function Measurements. <i>Am J Respir Crit Care Med.</i> 2023;207(6):768-774				

For more information on maintaining healthy lungs see <https://www.cdc.gov/asthma/community-health/>.

We **strongly recommend** you take this letter to your health care provider to discuss these results and determine whether you may need additional testing. The NHANES program will not pay for any follow-up tests or care you may require, but we will be available to talk with you or your providers about this letter and to answer any questions. You can reach me toll-free at 1-800-452-6115 (press 1 for English and press 2 for Spanish) between 9 am and 5 pm, Eastern Time, Monday through Friday.

You are responsible for securing your test results. If you do not want anyone else to see your results, keep them secure so no one else can review them. As promised in our confidentiality agreement, we do not report these results to health care providers or to public health departments.

Sincerely,

A handwritten signature in black ink, appearing to read 'Duong Nguyen', with a long horizontal flourish extending to the right.

Duong Nguyen, D.O.
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics
Centers for Disease Control and Prevention

{SP ID}
{OMB NUMBER}
{OMB EXP DATE}



National Health and Nutrition Examination Survey

{DATE}

Parent or Guardian of
 {SP FIRST NAME} {SP LAST NAME}
 {SP ADDRESS}
 {CITY, STATE ZIP MAILING ADDRESS}

Dear Parent or Guardian of {SP FIRST NAME} {SP LAST NAME},

Recently, {SP FIRST NAME} took part in the National Health and Nutrition Examination Survey (NHANES). The survey is run by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention. As part of this exam, testing was done to know how well {SP FIRST NAME}'s lungs work by measuring how much air they breathed in, how much air they breathed out, and how quickly they breathed it out. Trained professionals evaluated the lung function test but did not have information about {SP FIRST NAME}'s lung health or general health status. Lung function testing was done using the Easy on-PC spirometer. Compared with other people of {SP FIRST NAME}'s age, sex, and height, their breathing test results were outside normal limits. {SP FIRST NAME}'s results are consistent with { possible restriction or non-specific pattern; OR airflow obstruction; OR possible mixed pattern}.

Lung Function Testing*				
Measure	Best	LLN	z-score	% Pred
FVC (L)	{FVCBES}xx.xx	{FVCLLN}xx.xx	{FVCZ}x.xx	{FVCPRE}xxx
FEV₁ (L)	{FEVBES} xx.xx	{FEVLLN}xx.xx	{FEVZ} x.xx	{FEVPRE}xxx
FEV₁/FVC	{VCBEST} xx.xx	{VCDLLN}xx.xx	{VCBZ} x.xx	{VCBPRES} xxx
FET (s)	{FETBEST} xx.x			
FVC – forced vital capacity; FEV ₁ – forced expiratory volume in 1 second; FET – forced expiratory time; LLN – lower limit of normal; z-score – statistic describing how far the best value deviates from the predicted value; % Pred – percent of the predicted value.				
Reference values used to calculate LLN, z-score, and % Predicted are based on the Global Lung Function Initiative (GLI) Global reference equations.				
* Based on Bowerman C, Bhakta NR, Brazzale D, et al. A Race-neutral Approach to the Interpretation of Lung Function Measurements. <i>Am J Respir Crit Care Med.</i> 2023;207(6):768-774				

For more information on maintaining healthy lungs see <https://www.cdc.gov/asthma/community-health/>.

We **strongly recommend** you take this letter to {SP FIRST NAME}'s health care provider to discuss these results and determine whether they may need additional testing. The NHANES program will not pay for any follow-up tests or care {SP FIRST NAME} may require, but we will be available to talk with you or {SP FIRST NAME}'s provider about this letter and to answer any questions. You can reach me toll-free at 1-800-452-6115 (press 1 for English and press 2 for Spanish) between 9 am and 5 pm, Eastern Time, Monday through Friday.

You are responsible for securing {SP FIRST NAME}'s test results. If you do not want anyone else to see their results, keep them secure so no one else can review them. As promised in our confidentiality agreement, we do not report these results to health care providers or to public health departments.

Sincerely,

A handwritten signature in black ink, appearing to read 'Duong Nguyen', with a long horizontal flourish extending to the right.

Duong Nguyen, D.O.
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics
Centers for Disease Control and Prevention

{SP ID}
{OMB NUMBER}
{OMB EXP DATE}



National Health and Nutrition Examination Survey

{DATE}

{SP FIRST NAME} {SP LAST NAME}
 {SP ADDRESS}
 {SP CITY, STATE, ZIP MAILING ADDRESS}

Dear {SP FIRST NAME}:

Recently, you took part in the National Health and Nutrition Examination Survey (NHANES). The survey is run by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention. Digital images of the back of your eye, the retina, were taken during your NHANES examination. Trained professionals evaluated the images and found the following condition(s)*

Eye condition(s) requiring an appointment with an eye doctor (ophthalmologist)

IMMEDIATELY:

{Specific Retinal Pathology} {Written Interpretation}
 {Specific Retinal Pathology} {Written Interpretation}

Eye condition(s) requiring an appointment with an eye doctor (ophthalmologist) within the next MONTH:

{Specific Retinal Pathology} {Written Interpretation}
 {Specific Retinal Pathology} {Written Interpretation}

Eye condition(s) requiring an appointment with an eye doctor (ophthalmologist) within the next TWO MONTHS:

{Specific Retinal Pathology} {Written Interpretation}
 {Specific Retinal Pathology} {Written Interpretation}

We strongly recommend you take this letter to your eye doctor (ophthalmologist) to discuss these results and determine whether you may need additional testing. The NHANES program will not pay for any follow-up tests or care you may require, but we will be available to talk with you or your providers about this letter and to answer any questions. You can reach me toll-free at 1-800-452-6115 (press 1 for English and press 2 for Spanish) between 9 am and 5 pm, Eastern Time, Monday through Friday.

Page 2 –

You are responsible for securing your test results. If you do not want anyone else to see your results, keep them secure so no one else can review them. As promised in our confidentiality agreement, we do not report these results to health care providers or to public health departments.

Sincerely,

A handwritten signature in black ink, appearing to read 'Duong Nguyen', with a long horizontal flourish extending to the right.

Duong Nguyen, D.O.
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics
Centers for Disease Control and Prevention

{SP ID}

{OMB NUMBER}

{OMB EXP DATE}



Any Lab Adult Page 1 of 2

{SP FIRST NAME} {SP LAST NAME}
{SP ADDRESS}
{CITY, STATE ZIP MAILING ADDRESS}

{DATE}

Dear {SP FIRST NAME},

Recently, you took part in the National Health and Nutrition Examination Survey (NHANES). The survey is run by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention. As part of this exam, your samples were tested, and it was found that your {ROF LAB} level was outside normal limits.

{GEN LAB}

- Diabetes Test
- Thyroid Function Tests
- Kidney Function Tests
- Liver Function Tests
- Lipid Profile and Cholesterol
- Reproductive Hormones
- Iron Profile
- Nutritional Biochemistries
- General Chemistry
- Environmental Health Profile Blood Test for Cadmium, Lead, Manganese, Selenium
- Environmental Health Profile Urine Test for Chromium, Nickel

Test	Result	Units	Flag	Reference Range	Note
{Lab-specific tests}					
Note: Rows repeat to include all tests in a panel/profile					
---Test not done					
Please follow up with a health care provider regarding the {GEN LAB}					
{For more information about {GEN LAB INFO}}					





Any Lab Adult Page 2 of 2

We **strongly recommend** you take this letter to your health care provider to discuss these results and determine whether you may need additional testing. The NHANES program will not pay for any follow-up tests or care you may require, but we will be available to talk with you or your providers about this letter and to answer any questions. I can be reached toll-free at 1-800-452-6115 (press 1 for English and press 2 for Spanish) between 9 am and 5 pm Eastern Time, Monday through Friday.

You are responsible for securing your test results. If you do not want anyone else to see your results, keep them secure so no one else can review them. As promised in our confidentiality agreement, we do not report these results to health care providers or to public health departments.

Sincerely,

Duong Nguyen, DO
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

{SP ID}
{OMB NUMBER}
{OMB EXP DATE}

The following CLIA-certified laboratory performed {ROF LAB} level:

[Place holder here Laboratory Name and Address]



Q

National Health and Nutrition Examination Survey

Any Lab Child Page 1 of 2

Parent or Guardian of {SP FIRST NAME} {SP LAST NAME}
{SP ADDRESS}
{CITY, STATE ZIP MAILING ADDRESS}

{DATE}

Dear Parent or Guardian of {SP FIRST NAME} {SP LAST NAME},

Recently, {SP FIRST NAME} took part in the National Health and Nutrition Examination Survey (NHANES). The survey is run by the National Center for Health Statistics, part of the Centers for Disease Control and Prevention. As part of this exam, {SP FIRST NAME}'s samples were tested, and it was found that their {ROF LAB} level was outside normal limits.

{GEN LAB}

- Diabetes Test
- Thyroid Function Tests
- Kidney Function Tests
- Liver Function Tests
- Lipid Profile and Cholesterol
- Reproductive Hormones
- Iron Profile
- Nutritional Biochemistries
- General Chemistry
- Environmental Health Profile Blood Test for Cadmium, Lead, Manganese, Selenium
- Environmental Health Profile Urine Test for Chromium, Nickel

Test	Result	Units	Flag	Reference Range	Note
{Lab-specific tests}					
Note: Rows repeat to include all tests in a panel/profile					
---Test not done					
Please follow up with a health care provider regarding the {GEN LAB}					
{For more information about {GEN LAB INFO}}					



U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION



Any Lab Child Page 2 of 2

We strongly recommend you take this letter to {SP FIRST NAME}'s health care provider to discuss these results and determine whether {SP FIRST NAME} needs additional testing or treatment. The NHANES program will not pay for any follow-up tests or care {SP FIRST NAME} may require, but we will be available to talk with you or {SP FIRST NAME}'s providers about this letter and to answer any questions. I can be reached toll-free at {SUPPORT PHONE} (press 1 for English and press 2 for Spanish) between 9 am and 5 pm Eastern Time, Monday through Friday.

You are responsible for securing {SP FIRST NAME}'s test results. If you do not want anyone else to see their results, keep them secure so no one else can review them. As promised in our confidentiality agreement, we do not report these results to health care providers or to public health departments.

Sincerely,

Duong Nguyen, DO
Captain, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

{SP ID}
{OMB NUMBER}
{OMB EXP DATE}

The following CLIA-certified laboratory performed {ROF LAB}:

[Place holder here Laboratory Name and Address]