# Lab Report Summary

## Patient

| | |
|---|---|
| **Name** | Ronica Dickey |
| **Age** | 25 |
| **Date of Birth** | 1999-05-25 |
| **Sex** | F |
| **Fasting Status** | Y |
| **Date Collected** | 2025-03-10 |
| **Collection Location** | Labcorp Phoenix, 5005 S 40th Street Ste 1200, Phoenix, AZ 85040 |
| **Ordering Physician** | Jean Alvarez, Doris |
| **Client ID** | intake_20251104_163705 |
| **Client Name** | Ronica Dickey |
| **Client Address** | 1750 Elm Street Floor 12, 17277 W RUNNING DEER TRA, MANCHESTER, NH 03104 |

## Summary

The lab results show that some markers are elevated, particularly glucose, AST, ALT, and LDL cholesterol, which may indicate a need for dietary and lifestyle changes. Other markers are within normal ranges. It's important to focus on improving these elevated levels through nutrition and exercise.

## All Test Results

| Test | Value | Reference Range | Units | Flag |
|---|---|---|---|---|
| Glucose | 105 H | 70 - 99 | mg/dL | **HIGH** |
| AST (SGOT) | 58 H | 0 - 40 | IU/L | **HIGH** |
| ALT (SGPT) | 151 H | 0 - 32 | IU/L | **HIGH** |
| LDL Chol Calc (NIH) | 123 H | 0 - 99 | mg/dL | **HIGH** |
| BUN | 11 | 6 - 20 | mg/dL | **NORMAL** |
| Creatinine | 0.63 | 0.57 - 1.00 | mg/dL | **NORMAL** |
| eGFR | 126 | >59 | mL/min/1.7 | **NORMAL** |
| BUN/Creatinine Ratio | 17 | 9 - 23 | | **NORMAL** |
| Sodium | 141 | 134 - 144 | mmol/L | **NORMAL** |
| Potassium | 4.6 | 3.5 - 5.2 | mmol/L | **NORMAL** |
| Chloride | 106 | 96 - 106 | mmol/L | **NORMAL** |
| Carbon Dioxide, Total | 21 | 20 - 29 | mmol/L | **NORMAL** |
| Calcium | 8.8 | 8.7 - 10.2 | mg/dL | **NORMAL** |
| Protein, Total | 6.8 | 6.0 - 8.5 | g/dL | **NORMAL** |
| Albumin | 4.2 | 4.0 - 5.0 | g/dL | **NORMAL** |
| Globulin, Total | 2.6 | 1.5 - 4.5 | g/dL | **NORMAL** |
| Bilirubin, Total | 0.2 | 0.0 - 1.2 | mg/dL | **NORMAL** |
| Alkaline Phosphatase | 78 | 44 - 121 | IU/L | **NORMAL** |
| Vitamin B12 | 523 | 232 - 1245 | pg/mL | **NORMAL** |
| Cortisol | 13.4 | 6.2 - 19.4 | ug/dL | **NORMAL** |
| Hemoglobin A1c | 5.6 | 4.8 - 5.6 | % | **NORMAL** |
| Estim. Avg Glu (eAG) | 114 | | mg/dL | **NORMAL** |

## Biomarker Explanations

**Glucose:** Glucose is a type of sugar that your body uses for energy. High levels can indicate that your body is not using insulin effectively, which may lead to diabetes. It's important to manage your blood sugar through diet and exercise. Reducing sugar intake and increasing physical activity can help lower glucose levels, with improvements expected in 2-3 months.

**AST (SGOT):** AST is an enzyme found in the liver and other tissues. Elevated levels can indicate liver damage or inflammation. Monitoring your liver health through diet and avoiding alcohol can help normalize these levels. Improvements may be seen in 1-3 months with lifestyle changes.

**ALT (SGPT):** ALT is another enzyme that helps assess liver health. High levels can suggest liver issues. Similar to AST, lifestyle changes such as a healthy diet and avoiding alcohol can help lower ALT levels. Expect to see changes in 1-3 months.

**LDL Chol Calc (NIH):** LDL cholesterol is often referred to as 'bad' cholesterol. High levels can increase the risk of heart disease. Lowering saturated fat intake and increasing physical activity can help reduce LDL levels. Improvements can typically be seen in 3-6 months.

**BUN:** Blood Urea Nitrogen (BUN) measures kidney function. Your level is normal, indicating good kidney health. Maintaining hydration and a balanced diet will support kidney function.

**Creatinine:** Creatinine is a waste product from muscle metabolism, and normal levels indicate healthy kidney function. Continue to stay hydrated and maintain a balanced diet.

**eGFR:** Estimated Glomerular Filtration Rate (eGFR) assesses kidney function. Your level is normal, suggesting your kidneys are functioning well. Regular hydration and a healthy diet will support this.

**BUN/Creatinine Ratio:** This ratio helps evaluate kidney function. Your level is normal, indicating no immediate concerns. Continue to monitor your hydration and diet.

**Sodium:** Sodium is an essential electrolyte that helps maintain fluid balance. Your level is normal, indicating good hydration and diet balance.

**Potassium:** Potassium is vital for heart and muscle function. Your level is normal, suggesting a balanced diet. Continue to consume potassium-rich foods like bananas and spinach.

**Chloride:** Chloride helps maintain acid-base balance in the body. Your level is normal, indicating good health.

**Carbon Dioxide, Total:** This test measures the amount of carbon dioxide in your blood, which helps assess your body's acid-base balance. Your level is normal.

**Calcium:** Calcium is important for bone health. Your level is normal, indicating adequate calcium intake.

**Protein, Total:** Total protein measures the amount of protein in your blood. Your level is normal, suggesting a balanced diet.

**Albumin:** Albumin is a protein made by the liver. Normal levels indicate good liver function and nutritional status.

**Globulin, Total:** Globulin is a group of proteins in the blood. Your level is normal, indicating good health.

**Bilirubin, Total:** Bilirubin is a waste product from the breakdown of red blood cells. Normal levels suggest good liver function.

**Alkaline Phosphatase:** This enzyme is related to liver and bone health. Your level is normal, indicating no immediate concerns.

**Vitamin B12:** Vitamin B12 is essential for nerve function and blood cell production. Your level is normal, indicating adequate intake.

**Cortisol:** Cortisol is a hormone that helps manage stress. Your level is normal, indicating good adrenal function.

**Hemoglobin A1c:** This test measures average blood sugar levels over the past 2-3 months. Your level is at the high end of normal, indicating a need for monitoring and potential lifestyle changes.

**Estim. Avg Glu (eAG):** This value estimates your average blood glucose level. It is important to keep this in check to prevent diabetes.

## Flagged Results (Needs Attention)

- **Glucose**: 105 H mg/dL (Ref: 70 - 99) — **HIGH**
- **AST (SGOT)**: 58 H IU/L (Ref: 0 - 40) — **HIGH**
- **ALT (SGPT)**: 151 H IU/L (Ref: 0 - 32) — **HIGH**
- **LDL Chol Calc (NIH)**: 123 H mg/dL (Ref: 0 - 99) — **HIGH**

## Supplement Recommendations

- **Glucose**: Chromium Picolinate — Buy on Fullscript
  Chromium can help improve insulin sensitivity and lower blood sugar levels.
- **AST (SGOT)**: Milk Thistle — Buy on Fullscript
  Milk thistle supports liver health and may help normalize liver enzyme levels.
- **ALT (SGPT)**: N-Acetyl Cysteine (NAC) — Buy on Fullscript
  NAC can support liver function and help reduce elevated liver enzymes.
- **LDL Chol Calc (NIH)**: Omega-3 Fatty Acids — Buy on Fullscript
  Omega-3s can help lower LDL cholesterol and improve heart health.

## Customized Nutrition & Fitness Plan

### Nutrition

To support your health goals, focus on a Mediterranean-style diet that is low in carbohydrates. Incorporate plenty of vegetables, lean proteins (like fish and chicken), healthy fats (such as olive oil and nuts), and whole grains. Avoid processed foods and sugars. Aim for balanced meals that include fiber-rich foods to help manage blood sugar levels. Consider meal prepping to ensure you have healthy options available. Drink plenty of water and limit alcohol intake, especially until liver enzymes normalize.

### Fitness

Start with gentle home workouts that include walking and yoga, which are great for building endurance without putting too much strain on your body. Aim for at least 150 minutes of moderate exercise each week, broken down into manageable sessions. For example, you could walk for 30 minutes five times a week and incorporate yoga sessions 2-3 times a week. Listen to your body and avoid any exercises that cause discomfort, especially those that are high-impact.

### Follow-up Recommendations

Schedule a follow-up appointment in 3 months to recheck your liver enzymes and glucose levels. Keep a journal of your food intake and exercise to track your progress. This will help you stay accountable and make adjustments as needed. If you notice any concerning symptoms or if your levels do not improve, consult your healthcare provider sooner.

### Long-term Roadmap

Over the next 6-12 months, aim to gradually improve your overall health by sticking to your nutrition and fitness plan. Monitor your weight and energy levels, and adjust your diet and exercise as needed. Consider joining a support group or working with a nutritionist for additional guidance. Regular check-ups will be essential to ensure that your liver enzymes and blood sugar levels are moving in the right direction.