

Here is the Smart Health Report for Mr. Yash M. Patel.

## Patient Profile

- **Name:** Yash M. Patel
- **Age:** 21
- **Gender:** Male

## Summary of Results

The screening reveals a mixed profile of liver function and protein synthesis. Key findings include:

- **Elevated ALT (SGPT):** 100.50 U/L (High)
- **Normal AST (SGOT):** 16.00 U/L
- **Low Albumin:** 2.00 g/dL (Low)
- **Low A:G Ratio:** 0.10 (Low)
- Several other values are within normal ranges.

## Detailed Test Explanations

- **ALT (SGPT) elevated:** This enzyme is primarily found in the liver. An elevation suggests some degree of liver cell injury or inflammation.
- **AST (SGOT) normal:** This enzyme is also liver-related but is found in other organs. Its normal level here is reassuring.
- **AST:ALT Ratio: 0.50 (Normal):** A ratio less than 1 is typical in non-alcoholic fatty liver disease (NAFLD), which is common.
- **Albumin low:** Albumin is a protein made by the liver. A low level can indicate the liver is not synthesizing protein as well as it should, which can occur in various conditions.
- **A:G Ratio low:** The Albumin to Globulin ratio is low primarily because the albumin is low.
- **Other values (GGTP, Alkaline Phosphatase, Bilirubin, Total Protein):** These are within normal limits, which is reassuring and suggests the issue is not widespread.

## Overall Interpretation

The pattern of a significantly elevated ALT with a normal AST, along with low albumin and A:G ratio, suggests underlying liver-related activity. Given the patient is a young adult with no symptoms, the most common cause would be **Non-alcoholic Fatty Liver Disease (NAFLD)**, as mentioned in the remarks. This is often part of a metabolic syndrome and is very common.

The AST:ALT ratio is less than 1, which is typical for NAFLD and helps rule out other causes like significant alcohol-related liver disease, which typically shows an AST:ALT ratio greater than 1.

The low albumin and low A:G ratio, while not critically low, are worth noting as they can reflect early or mild impacts on liver synthesis function. They are consistent with the overall picture.

## Recommendations

1. **Consult a Physician:** It is important to discuss these results with a primary care doctor or a gastroenterologist/hepatologist. They can confirm the findings and order any necessary imaging, like an abdominal ultrasound.
2. **Lifestyle Modifications:** NAFLD is highly responsive to lifestyle changes.
  - **Diet:** Adopt a heart-healthy, low-fat, low-sugar diet. Reduce intake of processed foods and sugary beverages.

- **Exercise:** Aim for at least 150 minutes of moderate-intensity exercise per week.
  - **Weight Management:** If overweight, even a 5-10% reduction in body weight can significantly improve liver enzyme levels.
3. **Avoid Alcohol:** Given the liver is involved, it is best to avoid any alcohol consumption to prevent further stress on the liver.
  4. **Follow-up Testing:** A repeat liver panel (especially ALT) in 3-6 months is recommended to monitor progress. If ALT remains elevated, further investigation with an ultrasound or fibroscan may be appropriate.
  5. **Monitor:** Keep an eye on energy levels and any symptoms like fatigue or abdominal discomfort.

## Disclaimer

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