Larissa was 25 years old, and was seeing a new doctor because she’d recently moved to a different city, and needed to refill her birth control prescription. A nurse weighed her, measured her blood pressure, and sent her into an exam room to wait for the doctor.

Dr. Zamora introduced herself, asked a few personal questions about Larissa, and then raised a concern. “Did you know that your BMI is in the obese range? And your blood pressure is 130/85 mm Hg; that’s in the pre-hypertensive range.”

Larissa felt blood rush to her face. She’d always been overweight, and she knew with the recent stress of her move and new job that her diet and exercise habits hadn’t been the best lately. “Um, no, but I can’t say I’m surprised.”

“You should join a gym…maybe do Weight Watchers. My sister in law did Weight Watchers after she had her baby and she lost 50 pounds.”

Larissa just nodded, but she felt embarrassed and angry. Dr. Zamora was probably one of those naturally skinny people. “Yeah, I’ve done all that stuff before,” said Larissa, “but even when I’m doing everything I’m supposed to, I’ve never been skinny. Everyone in my family is big-boned.”

Dr. Zamora looked annoyed. “If you eat less and move more, you will lose the weight. You’re so young. I’m worried that you might have something called metabolic syndrome. Obesity can lead to serious health problems. I’m going to have you go for some bloodwork. You’ll have to fast for at least 12 hours before coming in to have it done.”

Although Larissa was upset about the way Dr. Zamora had handled the issue, she was also concerned about her health, so she went and had the bloodwork Dr. Zamora had requested. Her results are in the table below.

|  |  |  |
| --- | --- | --- |
| **Component** | **Your Result** | **Standard Range** |
| fasting plasma glucose | 87 mg/dL | 60–99 mg/dL |
| fasting plasma triglyceride | 121 mg/dL  | <150 mg/dL |
| plasma HDL-C | 1.1 mmol/L | >1.3 mmol/L |

**Questions**

1. How is metabolic syndrome defined? Does Larissa have metabolic syndrome?

2. Dr. Zamora feels that Larissa can achieve a BMI in the normal range if she changes her habits; Larissa feels that changing her behavior can only get her so far. Who is right?

3. If Larissa’s leptin levels were checked, would you expect her to have high, normal, or low leptin?

4. What would you tell Larissa if she were your patient? Is there anything you would do differently from Dr. Zamora?