Name: Casey Carnnia

Read each prompt carefully. Write your answer in the space provided. You may use your textbook for help.

**Health Statistics:**

Mark: 23 year old male from DC

Weight: 220 pounds

Height: 5 ft. 11 inches

Waist Circumference: 44 inches

Sit and reach score: 13 inches

**Scenario:**

Mark is in his third year of college at NOVA. He lifts weights about 3 days a week and often walks 20 minutes to class four days a week. Mark has always considered himself to be in good shape and one who cares about wellness. Lately, he has been experiencing moderate lower back pain, cramping in his hamstrings, and knee pain. His doctor told him to take Tylenol and to rest a few days to ease the pain. However, these suggestions have not alleviated the pain.

1. What are some possible sources of Mark’s pain in his back, hamstrings and knees?

It is reasonable to think that Mark’s exercise routine is neglecting cardio and flexibility. Perhaps lack of flexibility is causing tightness and pain in his hamstrings and the extra weight is bothersome for his knees.

1. Identify at least 2 general types of exercise that may benefit Mark and address his concerns.

I’d recommend that Mark first properly warm up. Start with a standing Upper-Back stretch and then get on the mat and perform seated torso twist to stretches his oblique and afterwards lie on the mat and pull his knee to chest to stretch his lower back.

1. Identify at least 5 specific exercises that you would suggest to Mark as a way to alleviate and reduce his pain.

Mark’s lower back pain and knee discomforts will certainly ease if he lost weight. His 44 inch waist circumference is an alarming indicator. Going forward, as he ages weight loss will only become harder and slower to achieve, so it is additionally advantageous to sooner the weight sooner than later. Any cardio type exercise that also protects his knee is recommended. Since he is familiar with weight lifting maybe a circuit routine is the easiest to move into. But swimming, elliptical machine, cycling, and rowing are all beneficial. Any of these exercises combined with stretching will help Mark.

1. Identify Mark’s flexibility results for the Sit and Reach test.

Mark’s 13 inch sit-and-reach puts him in the Very Poor category in terms of flexibility. The good news is that as his weight management and flexibility exercises can easily improve this indicator.

1. Calculate Mark’s BMI and weight classification. How might his weight classification play a role in his pain? (Use formula from the PP slides or pg.229)

220 lb = 100 kg 71 in = 1.8 m BMI = 100/1.82 = 100/3.25 = 30.77

Mark’s BMI indicates that he is borderline Obese.

1. Evaluate Mark’s disease risk for his waist circumference. (pg. 231)

A healthy waist circumference for amen is less than 39. Marks waist size of 44 puts him in high risk category for disease.

1. Identify at least 3 diseases that Mark may develop given his health statistics and risk classifications.

Risk of heart disease, sleep apnea, risk of stroke, cancer, sexual dysfunction and diabetes are hard to imagine for a 23 year old but Mark can greatly reduce his risk by working towards a healthier state.

1. What suggestions would you give Mark to help him reduce his BMI and disease risk for his waist circumference?

I’d advise Mark to make an honest inventory of his life. Try to find as many sources of stress that can be eliminated or at least managed. Establish a routine so that he can sleep adequately. Improve the nutritional value and frequency of food consumption while reducing the portion size. Strive for a diverse and unprocessed food options. Continue his weightlifting practice but perhaps introduce modifications to allow for more frequent overload-adapt-maintain cycles. Introduce a flexibility routine. Start with a moderate cardio routine and strive towards a more strenuous one gradually.