Activity: Nutrition & Recovery from ACL Surgery

Introduction

Injuries are part of sport, for example rupture of the anterior cruciate ligament (ACL). An ACL tear almost always requires surgery followed by months of work with an Athletic Trainer and/or Physical Therapist to fully return to play. Nutrition is not always considered when planning a rehab program; however, the right nutrition strategies can help promote healing. In this activity, your job is to use the information you learned in the lecture to develop a nutrition plan for an athlete following ACL surgery.

Supplemental reading: SSE #169: Nutritional Support for Injuries Requiring Reduced Activity (Tipton, K. 2017)

Athlete Profile

Name: Jenelle	Height: 6' 0"
Sport: Women's Basketball	Weight: 176 lbs
Level: Division I College	Age: 19

Like most injured athletes, Jenelle is worried about gaining weight while her activity is reduced. She has been lifting with her upper body, skipping breakfast and eating mostly protein bars and salads. You had her record a 3-day food record, and found she was only eating about 1100 calories per day.

Since you don't have access to equipment to measure her resting metabolic rate (RMR), use the Mifflin-St. Jeor Formula to estimate her baseline calorie needs:

RMR (females) = (10 x weight in kg) + (6.25 x height in cm) – (5 x age) – 161

Jenelle's RMR = _____

Answer the following questions:

1. Based on the lecture, how much can resting energy expenditure increase with an injury?
2. Give Jenelle a calorie intake range that will provide enough energy to support healing without causing weight gain.
3. Jenelle is skeptical of eating more calories. What can you say to teach her about her energy needs at this time?
4. What can you do to monitor Jenelle's progress and help make sure you're in the right calorie range?
5. How many grams of protein should Jenelle eat per day? Why?
6. Give Jenelle advice for incorporating protein into her day. How often should she eat protein, and how much each time? Give some advice on good foods options and explain to her why you are making these recommendations.
7. Jenelle asks if there are any supplements she should be taking. What is your response?
8. Research is emerging on the use of gelatin with vitamin C to promote synthesis of new connective tissue. How could you incorporate this into her nutrition plan?