With high goals and aspirations to be in the Olympics one day, Danielle, a member of the high school track team, would do anything possible to get there. Her coach suggested that she lose some weight. Danielle did just that. She began counting calories, and spent extra hours at the gym after her intense workouts on the track. Her coach noticed a difference when her times on the track improved. Seeing her coach happy with her running encouraged Danielle even more, and she soon headed toward a downward spiral. Too preoccupied with her training, Danielle didn’t realize that her period stopped. She was more concerned with the stress fracture in her foot and the championship meet coming up.

Danielle started off trying to lose a little weight to increase her performance but it accelerated and could potentially be hurting her and her health.

**Are you Willing to Do Whatever It Takes to Perform the Best in Your Sport?**

It is common for young athletes to go to great lengths to accomplish their goals. However there are boundaries to how far one should go. Danielle has a stress fracture and her period stopped. These are clear signs that she is not healthy. The stress fracture is evidence that her bones are weak. It is presumed that she is not consuming enough energy and nutrients from her diet since she over-exercises and restricts her eating. If you or any other female athlete you know does not eat properly to maintain weight, get help now. This is a serious condition affecting adolescent female athletes. These three health concerns; disordered eating, irregular menstruation, osteoporosis, are seen often among female athletes and has been termed female athlete triad.

**What Are Important Nutrients To Consume?**

Adolescent athletes, females especially, are going through a period of intense growth and development; nutrients consumed during this time are crucial to their health as an adult. The nutrient needs are higher than any other period in life. Many female athletes do not consume enough calories to match their calorie expenditure from participating in their sport. Most require at least 2300 to 2500 kcal per day to maintain bodyweight (3). Danielle’s diet is
lacking in sufficient calories to match up with her demands from training and exercising. This explains her loss of weight. If her overall energy intake is low she’s not consuming enough carbohydrates, protein and fat. Therefore she may also be lacking in important vitamins and minerals such as iron and calcium. The stress fracture is an indicator that her calcium levels may be low and the lack of her period can be an indicator for her iron levels and for weight loss.

Vitamin D and calcium are the crucial vitamins and minerals that have an effect on bone health. Milk is a great source of calcium and is fortified with vitamin D. Iron is also a very beneficial nutrient lacking in Danielle’s diet. Iron’s important function is to transport oxygen. The best food source for iron is red meat. It is also found in green leafy vegetables, whole grains, legumes, dried fruit, nuts and fortified foods. Adequate iron is beneficial for female athletes, especially for the long distance runner. During running, the foot striking on the ground causes iron losses from the body. There are often iron losses from a girl’s menstruation as well. It is important to consume these nutrients from the diet or supplement.

Lost Your Period?

Danielle’s intense training and loss of weight may have an effect of decreasing her estrogen, the hormone that helps regulate the menstrual cycle. Estrogen levels play a key role in maintaining and improving bone mass. Premature bone loss results in a low bone mass, which is defined as osteoporosis. Low estrogen levels and poor nutrition can be a cause of osteoporosis (1). There is a window of opportunity for maximum bone growth. The building period is during the adolescent years. Once a female reaches her twenties bone stops forming. It is either maintained or lost after this time. A woman’s bone health later in life is greatly affected by the adolescent growing period. This emphasizes the importance of healthy nutrition and habits.

Your Health Is Most Important!

It is important to become educated in the importance of nutrient intake while being an active female, which can be the foundation of your health into the adult years. Talk with a nutritionist to make sure you are getting everything you need from your diet.

What Happened???
You may be wondering what happened to Danielle? Well for one she was not able to compete in the championship meet. Her stress fracture was too serious to even walk on. Danielle’s weight was also way below the recommended weight for her age and height. She spoke with a nutritionist about her diet. They worked together over time and she maintained a healthy weight and is still competing. She has run two marathons and will compete in the next Olympic trials. Danielle got help before it was too late. If she got help earlier she would have prevented her stress fracture. She was wasting away; if she didn’t get help when she did some damages could have been irreversible.

References