## -the winning edge

ave you ever been in the middle of a competition—be it a rigorous point tournament "marathon," a kickboxing match, a boxing match or another athletic endeavor—and felt your muscles suddenly become shaky and weak? Have you ever felt your body just run out of gas?

If you don't train properly to develop your stamina and strength, this can occur naturally. However, it can also happen even if you train long and hard to get into top physical condition.

At one point in my kickboxing career, this was happening during my workout sessions despite all my endurance training, and it was extremely frustrating. That was years ago—before I understood the dynamics of nutrition and how it can affect the human body. I realize now that I was overindulging in carbohydrates, eating foods such as bread, muffins, fruits, rice, potatoes and pasta. I did not vary my diet enough, and I was seriously lacking in the protein and fat departments.

Between meals I'd snack on a candy bar or granola bar (more carbohydrates) for quick energy. I thought I was eating healthful foods and couldn't understand why my training sessions weren't more productive. To compensate for my lack of stamina, I'd often overtrain my lungs and muscles, which eventually wore down my body and gave me a cold. I had fallen into the vicious "carbohydrate trap."

Many people don't realize how carbohydrates affect their body. While it's true that carbohydrates provide muscles with the fuel you need to perform, it's also true that protein and fat are essential in building a high-performance muscle structure. Without healthy muscles and lungs, what good is high-octane fuel such as carbohydrates? You must eat a balanced diet of carbohydrates, protein and fat. Too many people snack on carbohydrates (such as snack foods containing lots of sugar) to get quick energy, and they consume them during every meal.

Here's another important but littleknown fact: Eating too many carbohydrates directly affects your blood-sugar

## Nutritional Balance Necessary to Avoid Fatigue by Cheryl Wheeler, C.N.



Martial arts champions such as Willie Johnson know the importance of eating the right amounts of carbohydrates, protein and fat.

levels, and this can cause muscle weakness, fatigue and shakiness. When too much sugar hits the bloodstream, causing your blood-sugar levels to soar, your pancreas overworks itself producing insulin to drive blood-sugar levels down. Sometimes this can cause a yo-yo effect, producing short bursts of energy coupled with plummeting energy crashes, which can make your muscles shaky and fatigued. If you eat the proper ratio of protein, carbohydrates and fat, you can keep your blood-sugar levels steady and solid, enabling your muscles and brain to be fed with a continuous flow of glucose that doesn't spike up and down. This helps you avoid the fluctuation that can cause a variety of stamina and energy problems.

So the next time you notice your muscles getting the shakes and you feel fatigued and disoriented before the end of your training session (this often occurs very early during a workout), take a look at what you're eating. This is a more constructive approach than berating yourself for not being in better shape and compensating by overtraining—and possibly doing more harm than good. Make sure you're getting the proper amount of protein and fat with your carbohydrates. It can make all the difference in the world when you're striving to reach your optimum performance levels.

About the author: Cheryl Wheeler is a former kickboxing champion and a certified nutritionist.