

## Simple test can help achieve weight-loss goals

by Catharine Schaidle

Although she has been running competitively for four years, in late summer while preparing for the Chicago Marathon, Terri Angot-Lewis hurt her foot and had to take a two-month break.

Angot-Lewis, 42, felt she may have been pushing herself too far and sought expert advice from Dr. Linda Braastad of Peak Exercise Performance in Peoria, Ill. Braastad conducted a simple 10-minute test, which confirmed that she had indeed been over-exercising.

AIMING FOR EFFICIENCY - Margo Grinstead, far left, works out on a stationary bicycle at her Peoria, Ill., gym as Dr Linda Braastad, second from left, spin instructor Carl Connolly, third from left, and personal trainer Jake Miles of Peak Exercise Performance conduct an oxygen and carbon dioxide analysis to determine Grinstead's ideal exercise threshold. CNS Photo by Matt Dayoff. "She was exercising beyond the rate at which she was doing herself any good," Braastad said.

Mikie Shadid, 48, used to be a marathon runner until a few years ago when she stopped exercising to care for her late husband. She recently went back to it with a vengeance and found herself always worn out and tired.

"I felt I had to go all out, push myself until I couldn't go any further, but nothing was really working," Shadid said. "The trainer I was working with recommended I do this test with Linda. It's been great for me. Usually after I've worked out I can't even talk and just want to take a nap."

Shadid's grateful that Braastad's service was available.

Braastad was an emergency room doctor who decided to take a break to raise children. She now operates Peak Performance Exercise using a scientific method to show people how they can get the most out of their exercise sessions.

This summer Braastad and Cari Connolly, who teaches spinning with Braastad at The Clubs at River City in Peoria, attended a conference where they learned about this method.

"Sometimes you work out at a high rate because you think you're doing your body good, but you're not," said Connolly, who had sustained injuries while over-exercising.

Connolly took the test and found that she was spinning her wheels in vain because she did not have a strong aerobic base.

During the 10-minute test, a heart rate monitor is attached to the body. You also wear a face mask, which is probably the hardest part of the test if you're even slightly claustrophobic. Of course, knowing a fully-trained doctor is hovering over you makes it easier to endure.

The mask is connected to an oxygen and carbon dioxide analyzer. You begin your exercise on a machine of your choice such as a stationary bicycle, treadmill or elliptical machine and gradually increase intensity. The analyzer sends information about how your body is reacting to a computer that interprets the data.

After it's over, your peak VO<sub>2</sub>, which is the rate of oxygen consumption measured during exercise, your heart training zones, aerobic base and anaerobic threshold are all recorded and given to you in a detailed report. After the test, you can wear a heart rate monitor while exercising to make sure you're exercising at the target rate. The mask is yours to keep.

### BURNING FAT

When we exercise, Braastad explained, we use a blend of fat and carbohydrate for fuel.

"We want to maximize the use of fat while exercising because it provides more energy than carbohydrate," she said. "We have plenty of fat stores to allow us to sustain exercise for prolonged periods."

"Most people also want to lose body fat through exercise," Braastad said. "Utilizing fat for fuel makes for efficient exercise. Our bodies are able to use fat as long as we can supply enough oxygen to the muscles to allow fat breakdown. When we reach the exercise intensity where we're not able to provide enough oxygen for this purpose, we become anaerobic and use mostly carbohydrate for fuel."

This results in lactic acid buildup and aching muscles.

The goal of any good exercise program is to burn fat at all heart rates, right up until the point where we become anaerobic.

"The aerobic base is the heart rate at which you are most efficient at using fat as a fuel source," Braastad said. "This number is marked on your report. If you concentrate your workouts at the aerobic base heart rate and slightly higher, you will gradually increase your aerobic base number."

The higher your heart rate, the more total calories you burn; therefore, you can increase your fat use at gradually higher heart rates and burn more total fat and calories.

"You will be more efficient and will be able to work harder without feeling tired or out of breath," she said. "You will also lose weight more quickly, because you will be burning more total calories."

You may even feel like you're not working hard enough at the aerobic base heart rate; however, your body is actually developing more capillaries and mitochondria in the muscles. This increases oxygen transport to muscles, increases stroke volume of the heart and decreases resting heart rate.

"This is called base training," Braastad said. "Your exercise test results will help us use science to improve your training and make you more efficient at burning fat. This will make weight loss easier through exercise. It will keep you from working too hard and risking injury or not working hard enough and never getting the results you want."

Shadid, who has gone for the re-test, said she has not dropped many pounds but has gone down a size in jeans, and her clothes fit better. But more importantly, she said, "Now I feel great and I've even upped my exercise level a bit."

Angot-Lewis, who describes herself as a "wannabe triathlete," has a few weeks to go before she is re-tested, but already she said she can feel the difference.

"I can talk more when I run instead of always being out of breath."

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