

Advice on Exercise in Pregnancy Starting to Evolve

Medical societies are becoming more liberal in their recommendations regarding physical activity.

BY MARY ELLEN SCHNEIDER
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NEW YORK — What physicians and researchers know for sure about physical activity during pregnancy hasn't changed much since the early 1900s, James M. Pivarnik, Ph.D., said at the annual meeting of the Diabetes in Pregnancy Study Group of North America.

Recommendations from the Handbook for Prospective Mothers, published in 1913, advised pregnant women that the amount of exercise needed cannot be precisely stated, walking is the best kind of exercise, and all kinds of violent exertion should be avoided. While today's recommendations have been more thoroughly researched, they don't provide women with many more definitive answers, said Dr. Pivarnik, who serves as director of the Center for Physical Activity and Health at Michigan State University in East Lansing.

But professional medical societies are generally becoming less conservative in their recommendations about exercise for

pregnant women. For example, Dr. Pivarnik said, the American College of Obstetricians and Gynecologists has revised its recommendations on exercise in pregnancy three times in the last 2 decades, and has moved away from strict limits on physical activity.

In 1985, ACOG released its first exercise guidelines for pregnant women, which included time limits for exercise and recommended that a woman's heart rate not exceed 140 beats per minute. However, even these early guidelines included the disclaimer that physically fit pregnant woman may tolerate a more strenuous program.

"There was actually the dispensation way back then but a lot of people just didn't follow that," Dr. Pivarnik said.

In 1994, ACOG issued updated guidelines that were less cautious and emphasized the benefits of mild to moderate exercise at least 3 days a week. "There was more stress on the health benefits, rather than the fear," he said.

The most recent ACOG guidelines on exercise in pregnancy were issued in 2002

and address activity among recreational and competitive athletes. Specifically, the guidelines recommend that athletes with uncomplicated pregnancies can remain active during pregnancy and should modify their routines as medically indicated. However, since information on strenuous exercise is limited, these women require close medical supervision.

And most pregnant women without medical or obstetric complications can aim to engage in 30 minutes or more of moderate exercise a day, according to the guidelines.

Guidelines issued in Canada in 2003 by the Society of Obstetricians and Gynaecologists of Canada and the Canadian Society for Exercise Physiology take an even more aggressive approach. The joint 2003 guidelines recommend that all women without contraindications should be encouraged to participate in aerobic and strength-conditioning exercises during pregnancy.

But some physicians and nurse-midwives who deal with obstetrics are not up to date on the guidelines and still recom-



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Guidelines on exercise in pregnancy are moving away from strict activity limits.

mend more conservative approaches, such as not exceeding a heart rate of 140 beats per minute, Dr. Pivarnik said. "There's no evidence that that's the way it should be done," he said. ■

Hypogonadism Symptoms in Type 2 Patients Warrant Testosterone Test

HANNAH BROWN
Contributing Writer

BARCELONA — Consider measuring testosterone levels in all male type 2 diabetes patients with symptoms of hypogonadism, Dr. Eric Meuleman of the Free University Medical Center, Amsterdam, advised at an international congress on prediabetes and metabolic syndrome.

Untreated hypogonadism can cause substantial distress and social consequences to the men involved, he noted. "People lose jobs and marriages over low testosterone. It is generally something that has been ignored in the past."

Reductions in testosterone levels happen to all men as they get older, with concentrations dropping by an average of 1% per year after age 50 (J. Clin. Endocrinol. Metab. 2007;92:196-202). Between the ages of 40 and 79 years, 12.3% of men have testosterone levels low enough to produce clinical signs and symptoms such as diminished sexual desire, poor erectile quality, low energy, reduced sense of vitality, and anemia, Dr. Meuleman said. But men with type 2 diabetes seem to be more susceptible to testosterone loss, with an estimated 33% of this group affected by the condition.

Because the symptoms are fairly nonspecific, the syndrome is diffi-

cult to diagnose and may not appear to be separate from the effects of diabetes. The Endocrine Society issued guidelines last year on treating symptoms of hypogonadism (low testosterone), listing drops in libido, muscle bulk, and height—along with hot flashes, loss of body hair, gynecomastia, and low work performance—as the main symptoms. Other sources have noted that low testosterone is also accompanied by changes in mood, with concomitant decreases in intellectual activity and cognitive function, as well as sleep disturbances, decreases in lean body mass, and increased fracture risk, he said.

Dr. Meuleman said the wide range of possible symptoms means that physicians must rely heavily on biochemical measurement of testosterone to diagnose the condition. A serum test assessing free bioavailable testosterone can be done clinically and should be carried out before 11 a.m. because of the circadian rhythm of testosterone levels in the blood. One-third of patients eventually diagnosed with low testosterone turn out to have classical causes such as Klinefelter's

syndrome, which is undiagnosed in 75% of cases.

Studies looking at the effectiveness of replacing lost testosterone in men who have testosterone deficiencies have shown that testosterone supplementation can delay time to ischemia (Heart 2004;90:871-6). Supplementation also can improve distance in the shuttle walk test, boost mood in patients who are depressed, and improve lipid profiles while significantly decreasing total cholesterol, Dr. Meuleman added.

An ongoing study is looking at whether these findings can be extended to men with metabolic syndrome and type 2 diabetes. The randomized, double-blind, placebo controlled Effect of Transdermal Testosterone Replacement in Hypogonadal Men With Metabolic Syndrome or Type 2 Diabetes Mellitus (TIMES 2) study intends to test testosterone replacement to see if it reduces insulin resistance as measured by homeostatic model assessment (HOMA). Results from the study, which is being funded by ProStrakan Group Ltd., maker of a testosterone replacement gel, are expected to be reported in April 2009, Dr. Meuleman said. ■

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Use Aggressive Approach In Gestational Diabetes Tx

NEW YORK — Physicians should take an aggressive approach in treating obese women with gestational diabetes because they have a relatively short time in which to make a difference, Dr. Oded Langer advised at the annual meeting of the Diabetes in Pregnancy Study Group of North America.

Gestational diabetes is generally recognized late in pregnancy, at around 26 to 28 weeks, and many of these women will deliver by 38 weeks, which means that physicians have only a 10-week window to put an effective treatment plan into place, said Dr. Langer, chairman of the department of obstetrics and gynecology at St. Luke's-Roosevelt Hospital Center in New York.

He suggested that physicians take a practical approach and target the factors that can lead to large-for-gestational-age (LGA) babies and other obstetric complications, and that can be changed within 10 weeks.

An analysis of the possible factors that result in LGA babies among obese mothers with gestational diabetes showed that treatment modality, obesity, mean blood glucose, severity of the disease, parity, previous macrosomia, and weight gain were all independent contributors to LGA births (Am. J. Obstet. Gynecol. 2005;192:1768-76). But among those factors, only three—treatment modality, mean blood glucose, and weight gain—can be modified within 10 weeks, according to Dr. Langer.

Physicians need to treat those three factors through the use of insulin or glyburide, as well as modifications in diet and exercise, he said.

However, diet and exercise alone would not make a significant difference in only 10 weeks, Dr. Langer cautioned.

Although the results of the Diabetes Prevention Program and most other current studies show that lifestyle interventions produce the best results in preventing the development of diabetes, such results are difficult to accomplish in a short time period, he explained.

—Mary Ellen Schneider