Advice on Exercise in Pregnancy Starting to Evolve

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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, director of the Center for



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

Physical Activity and Health at Michigan State University in East Lansing.

But professional medical societies are becoming less conservative in their recommendations about exercise for pregnant women. For example, the American College of Obstetricians and Gynecologists has revised its recommendations 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 did not follow that," Dr. Pivarnik said.

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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 in recreational and competitive athletes. The guidelines recommend that athletes with uncomplicated pregnancies can remain active during pregnancy and should modify their routines as medically indicated. but because information on strenuous exercise is limited, they 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, say 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 suggest 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 recommend 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."



Levemir is indicated for once- or twicedaily subcutaneous administration for the treatment of adult and pediatric patients with type 1 diabetes mellitus or adult patient with type 2 diabetes mellitus who require basal (long-acting) insulin for the control of hyperglycemia.

Important safety information
Levemir should not be diluted or mixed with any other insulin preparations.
Levemir is contraindicated in patients hypersensitive to insulin detemir or one

Hypoglycemia is the most common adverse effect of all insulin therapies, including Levemir. As with other insulins, the timing of hypoglycemic events may differ among various insulin preparations Glucose monitoring is recommended for all patients with diabetes. Any change of insulin dose should be made cautiously

and only under medical supervision.

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Levemir is not to be used in insulin infusion pumps. Inadequate dosing or discontinuation of treatment may lead to hyperglycemia and, in patients with type 1 diabetes, diabetic ketoacidosis. Insulin may cause sodium retention and edema, particularly if previously poor metabolic control is improved by intensified insulin therapy. Dose and timing of administration may need to be adjusted to reduce the risk of hypoglycemia in patients being switched to Levemir from other intermediate or longacting insulin preparations. The dose of Levemir may need to be adjusted in patients with renal or hepatic impairment.

Other adverse events commonly associated with insulin therapy may include injection si reactions (on average, 3% to 4% of patient

in clinical trials) such as ipodystrophy, redness, pain, itching, hives, swelling, and inflammation *Whether these observed differences represent true differences in the effects of Levemir and NPH insulin is not known, since these trials were not blinded and the protocols (eg, diet and exercise instructions and monitoring) were not specifically directed at exploring hypotheses related to weight effects of the treatments compared. The clinical significance of the observed differences in weight has not been established.



Reference: 1. IMS Health, IMS MIDAS [12 months ending September 2005]. Please see brief summary of Prescribing Information on adjacent page.

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