SAN LUIS OBISPO – Pregnant women avoid unhealthy weight gain and return to their normal weight post-delivery at much higher rates if they receive personalized nutrition and exercise monitoring and support throughout their pregnancy, according to a study led by Cal Poly Kinesiology Professor Suzanne Phelan.

The study was published in February by the American Journal of Clinical Nutrition.

In the “Fit for Delivery” study, one group of women were given in-person, mail and phone support involving exercise, nutrition and diet during pregnancy to prevent excessive weight gain, in addition to standard prenatal care. A control group was given standard prenatal care only.

“We found that preventing excessive weight gain during pregnancy is possible through a low-intensity lifestyle intervention that promotes frequent self-weighing, reducing fast food and soda consumption, and engaging in moderate physical activity at least five days a week,” Phelan said.

Results showed that only 42 percent of women receiving the weight intervention treatment gained a medically unhealthy amount of weight during pregnancy, compared to 52 percent who received standard care only. And roughly 31 percent of women receiving the weight intervention treatment returned to their normal weight by six months after delivery, compared to only 19 percent in the standard care group.

The “Fit for Delivery” program benefited women who were at a healthy weight before becoming pregnant, as well as those who were medically obese before pregnancy.

The findings are important, Phelan said, because excessive weight gain during pregnancy is a major risk factor for
post-delivery weight retention and obesity for women and obesity in their children. However, there are few scientific studies on how to prevent unhealthy gestational weight gain.

“One of the next steps is to start implementing this kind of intervention as part of standard pre-natal care,” Phelan said. “We designed the ‘Fit for Delivery’ program with dissemination in mind, and our next study will test its effects as part of clinical practice.”

Phelan co-authored the study with Cal Poly Statistics Professor Andrew Schaffner as well Brown University investigators Maureen G. Phipps, Rena R Wing and Francine Darroch and UC Berkeley Professor Barbara Abrams.

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