

Healthy Moms Give Birth to Healthy Babies

By Darline Turner-Lee

History

The notion that pregnancy is a “delicate condition” has been debunked as myth throughout history. As far back as biblical times, women who maintained strenuous and physical lives delivered healthy and robust children (see Exodus 1:19). Only amongst the nobility and upper classes were pregnant women deemed “delicate” and prohibited from engaging in vigorous activities. Truthfully, this had more to do with preserving the offspring, the heirs, than protecting the physical health of the mother. Western industrialized societies popularized “confinement” of pregnant women, again as a mechanism to preserve the life of the unborn child.

Modern Day Knowledge

In the late 1970's James F. Clapp, III, M.D. began to (and continues to) research the effects of exercise on pregnant women and their unborn children. His findings are presented in the book, *Exercising Through Your Pregnancy*, which is the foundation for most of what we know today about the affects of exercise on pregnant women. He proved exercise is beneficial not only to the pregnant woman, but also to her unborn child.

Benefits of Exercise for the Mom

Clapp and others have found that women who engage in regular, moderate exercise (defined as *moderate intensity* on the Borg Rate of Perceived Exertion scale) for at least 20 minutes, 3-5 days a week, throughout their pregnancies:

1. Tend to have shorter and less complicated labors, and less need for medical intervention;
2. Have more energy during their pregnancies and recover faster following delivery;
3. Return to their pre-pregnancy weight sooner than less active women;
4. Gain less weight during pregnancy;
5. Tend to experience an improved body image, enhanced self-esteem and a general sense of wellbeing;
6. Experience less tension, anxiety and fatigue than less active women;
7. Experience a decrease in the common discomforts of pregnancy;
8. Maintain cardiovascular fitness;
9. Increase muscular strength; and
10. Experience fewer colds and other respiratory viruses.

Exercise Programs that benefit pregnant women have these essential components:

1. **Cardiovascular (endurance) exercise** – Activities such as walking, aerobics and jogging provide **the most important benefits** of exercise during pregnancy. Pregnant women should do endurance exercise (increasing and maintaining a

rate of perceived exertion of 12-15 on a scale of 1-20) for 30 minutes 3-5 times per week.

2. **Resistance Training** – Maintaining or increasing muscular strength allows the muscles to support the “loosened” joints and prevent injury, relieve discomfort, and prepare new moms for a strenuous life with a newborn. (For example, carrying car seats, diaper bags, etc.) Pregnant women should participate in resistance or strength training programs 2-3 times per week on alternating days.
3. **Stretching** – Stretching exercises increase range of motion and flexibility. Pregnant women move more easily, have fewer aches and pains with pregnancy, avoid injury and typically have shorter labors and easier deliveries. Pregnant women are encouraged to do stretching exercises daily.
4. **Certified Perinatal Instructors** – Instructors with advanced training and certification in perinatal fitness, trained to design and supervise fitness programs specifically for pregnant and post partum women.

What are the Risks?

When Clapp and his associates began studying the effects of exercise on pregnant women, they also asked, “Is maternal exercise harmful to the developing baby?” Clapp evaluated not only the pregnant women, but also their developing babies. His studies show that maintaining a regular, moderate exercise regimen throughout pregnancy has both short-term and long-term benefits and no deficits for babies.

When a pregnant woman exercises, blood is temporarily shunted away from her abdomen, hence the uterus. The fetal heart rate temporarily decreases in response to the decreased uterine blood flow. After the mother finishes exercising, the fetal heart rate increases before it returns to its regular baseline rate as uterine blood flow normalizes. While this heart rate fluctuation was initially alarming, Clapp discovered this adaptation helps developing babies better endure the stresses experienced during labor and delivery, as well as the transition to life outside the womb. They are also able to use these adaptive mechanisms in the event of unexpected complications, thus having a slight survival advantage over babies born to non-exercising women.

Benefits of Exercise for the Baby

Babies born to exercising women have less body fat compared to babies born to non-exercisers, and at birth, are up to one pound lighter on average. Though smaller, babies born to moms who exercised during pregnancy are not more likely to be born at “low birth weight”, and are fully developed compared to their counterparts born to non-exercising women.

Because babies born to exercising women are able to adapt to stressors and stimuli, they transition more readily to life outside the womb. These newborns tend to be alert, and less startled by their environment. They also readily settle themselves, requiring less comforting.

Long-term, babies born to mothers who engaged in regular, vigorous exercise during pregnancy experience no stunting of growth or development. This was true when the children were tested both at one year and again at five years of age. In Clapp’s studies,

the children scored higher on tests of general intelligence and oral skills compared to children born to inactive mothers.

Conclusion

Clapp's work has changed how physicians and midwives prescribe exercise during pregnancy, and how women approach physical fitness during pregnancy. The American College of Obstetrics and Gynecology has revised its guidelines on exercise during pregnancy, most recently in 2002, primarily based upon Clapp's research findings. It is now safe to say that regular exercise, continued throughout pregnancy, is not only good for the mothers, but also good for the babies.



Darline Turner-Lee, B.S., M.H.S, PA-C, ACSM Exercise Specialist is a health and fitness consultant, trainer and the owner of Next Step Fitness, Inc. She combines academic knowledge with clinical experience to empower women to take charge of their healthcare and their lives by providing patient advocacy, education, health consulting and fitness training. She is a certified Healthy Moms® Perinatal Fitness Instructor, and a Moms in Motion Certified Fitness Instructor. More information about Next Step Fitness can be found at www.nextstepfitness.com or by emailing mail@nextstepfitness.com.