

Delaware Valley Institute of Fertility & Genetics Conceptions

Winter 2000

WHY WEIGHT MATTERS

If you're carrying around too much weight, you're not alone. According to the Journal of the American Medical Association (JAMA), obesity is on the rise. During the past decade the percentage of extremely overweight people (30 percent or more above healthy body weight) increased 50 percent, with 18 percent of the U.S. adult population now obese.

This is dire news as obesity can create major health problems. Not only does obesity double the risk of coronary disease, it increases the likelihood of developing diabetes, hypertension, high cholesterol, cardiovascular disorder, and some cancers.

Obese women also have difficulty conceiving. Research has found that obese women are two times more likely to be infertile than women of healthy weight. They also suffer from irregular menstrual cycles and weakened immune systems, making conception difficult. In addition, obesity can cause men to produce inferior sperm, another reason for infertility in couples.

Many times severely overweight people can develop a relatively common, though not well-known, condition called "Syndrome X." This condition is caused by having too much insulin in the body. "Syndrome X" can not only impede a woman's ability to become pregnant but her ability to carry to term as well. (For more on this condition and what can be done about it, see "Understanding Syndrome X" on page 2.)

"Infertility problems and weight go hand in hand," says Chung H. Wu, M.D., director of the Delaware Valley Institute of Fertility & Genetics (DVIFG) Syndrome X Early Detection and Treatment Program. "Many people don't believe that weight is the problem. They also don't know the potential medical problems. Obesity is not just an appearance problem, it's a medical condition that needs careful monitoring and attention."

If you do conceive, being obese also can make your pregnancy more difficult. The risk of hypertension and diabetes in the form of preeclampsia and gestational diabetes rises, and delivery can be complicated because overweight mothers tend to deliver large babies. That's why it's so important to be at a healthy weight while trying to conceive.

"The good news is that most people can lose weight by exercising regularly, eating well-balanced meals, and developing a positive attitude," says Dr. Wu. "The key is to establish measurable goals that are achievable. Some people want to lose 20 pounds in a month, but that's not realistic, and they'll probably gain the weight back in a few months. One to two pounds a week is achievable."

Once you've made up your mind to lose weight, here are some other tips to keep you on track:

- **Eat a well-balanced diet.** Follow a low carbohydrate diet that includes plenty of fruits, vegetables, protein sources that are low in fat, including fish, skinless chicken and turkey, and beans. Don't say you don't have time to eat right. Grocery stores sell pre-washed salads, cooked chickens, and other healthy choices to make dinner a snap. To stay on course, prepare weekly meal charts to keep you from resorting to fat-laden fast food cheeseburgers and fries when time is at a premium.

- **Find a fun way to exercise.** In addition to relieving tension and stress and burning calories to help you lose weight, exercising makes you feel better about yourself. The possibilities are endless. From walking to swimming, exercise options abound. (For Dr. Wu's favorites, see "Yoga" and "Chi Kung" on page 3.) Too many people believe they have to change their lives completely in order to exercise regularly. That's a myth. People who exercise have learned to fit it into their daily lives. Like brushing their teeth or getting enough sleep, exercising is something they do without question. Why? Because it's fun!

- **Create a support network.** Get your spouse and friends involved in your fitness plan. It's fun to exercise with others. By sharing your resolution to lose weight with others, they can help you stick to your plan.



UNDERSTANDING SYNDROME X

An Interview With Chung H. Wu, M.D.

Chung H. Wu, M.D., a Fellow of the American College of Obstetrics and Gynecology, is one of the country's foremost authorities on insulin resistance and Syndrome X. As a professor of obstetrics and gynecology and a researcher in reproductive endocrinology and infertility at Thomas Jefferson University and the UMDNJ-Robert Wood Johnson Medical School, he has been at the forefront in educating people about Syndrome X and how to treat it. He directs DVIFG's Syndrome X Early Detection and Treatment Program.

Q: What is Syndrome X and why should couples trying to conceive be concerned with it?

A: Syndrome X is a relatively common though not well-known condition that can eventually affect 70 to 80 percent of Americans. Caused by having too much insulin in the body, "Syndrome X" can not only impede a woman's ability to become pregnant but her ability to carry to term as well.

Besides affecting a woman's ability to conceive, Syndrome X is also a factor in obesity, hypertension, cardiovascular problems, and diabetes mellitus. High insulin levels in the body can result from a number of factors, including stress or weight gain, but the main cause is insulin resistance. Insulin resistance means that the body doesn't respond to insulin properly to bring the sugar level down, so the pancreas work harder and harder to produce more insulin to get the blood glucose level under control. The pancreas eventually become exhausted and can no longer output enough insulin to keep the blood sugar level down. This elevated insulin level in the blood reaches a condition known as chronic hyperinsulinemia.

Chronic hyperinsulinemia, also known as chronic insulin resistance, can affect a woman's ability to conceive in a big way. The condition causes the ovaries to produce too many male hormones, which can suppress egg maturation and even damage the eggs themselves. It also can cause polycystic ovary syndrome, which makes it difficult for a woman to achieve pregnancy and also increases the rate of miscarriage if she does conceive.

Q: Is everyone with Syndrome X overweight?

A: No, but many are due to the effects of insulin resistance. The condition increases body mass and fat storage, making people gain weight easily without eating very much. As a species humans were created to seek and store fat for survival in times of famine or war. Now this trait is making us fat because we have a surplus of food but

we're still storing too much fat. If chronic insulin resistance is not controlled, it can lead to heart problems, diabetes, and a high risk of stroke.

Both men and women of normal weight also can develop Syndrome X due to long-term stress from work, family issues, or other problems. Part of the "fight or flight" concept in human evolution, high levels of stress can cause insulin levels to rise. In extreme cases of stress, such as being forced to live in concentration camps during World War II, women stopped menstruating not just because of starvation, but also because of the excessive stress in their lives. A more common example is the disruption of menstruation in young freshmen coeds during their first semester. When they come for the holidays, their periods return.

Q: Can Syndrome X be controlled?

A: Yes, if it's detected early. Our institute is one of the very few facilities anywhere that can not only detect but treat the condition as well. The specialized test for insulin resistance is as simple as drawing blood. Then we take a holistic approach to getting the insulin level under control.

Q: What's involved in Syndrome X treatment?

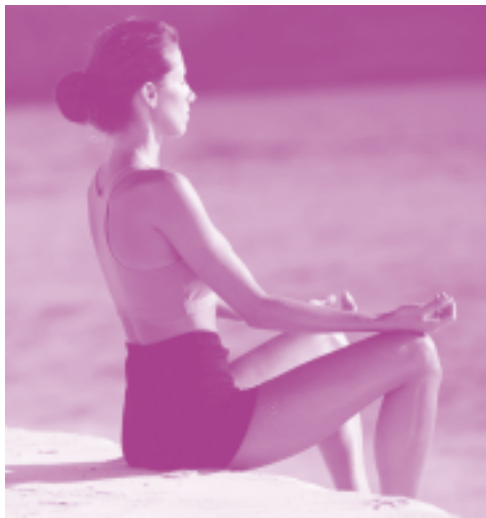
A: Since everyone is different, I developed a unique five-step treatment program for every person with Syndrome X. We then meet monthly to go over the progress and to problem solve any obstacles in the patient's way. With my help and the patient's determination there's no reason why one cannot suppress the blood glucose level and correct the insulin resistance to lead a healthy life, one that includes parenthood. In fact in some of my patients' cases, they were able to get pregnant on their own after their insulin resistance was controlled.

Q: What's involved in this five-step process?

A: The five steps include:

1. Eating a well-balanced diet, one that will allow you to lose a pound or two a week.

2. Adopting an easy (low impact) exercise program.
3. Learning to manage stress.
4. Taking insulin-sensitizing agents to control insulin levels and to help correct metabolic as well as ovarian dysfunction.
5. Postponing conception attempts until the metabolism is corrected. (Some couples use birth control for a few months after beginning the program.)



To reduce stress, regular exercise and relaxation periods are very important in managing Syndrome X. Two of my favorite forms of exercise that incorporate the two are Yoga and Chi Kung. Practiced as far back as third century B.C., **Yoga** focuses on altering the state of a person's mind to generate healing within the body. By assuming a series of asanas (positions) and concentrating on

breathing, men and women who practice yoga keep their spines supple and systematically exercise all of the body's primary muscle groups. This in turn strengthens the organs by promoting respiration and blood flow.

Chi Kung, also known as Qigong, is an ancient Chinese form of yoga. Chi Kung combines gentle movements with deep breathing, self-massage and meditation to clear the mind, relax the muscles and restore the spirit.

Other great exercise choices are walking, swimming, bicycling, and low-impact aerobics. The idea is to exercise your muscles in a gentle way.

It's also important to make some quiet time just for yourself every day. Sit in a quiet place and reflect on beautiful thoughts to clear the mind. Some people like to meditate or pray at this time. Others prefer sitting quietly and breathing deeply to promote deep relaxation. An alternative to prayer is to meditate or read from a favorite inspirational book. By taking your mind off of trying to conceive you will sleep better, and improved rest will boost your immune system and hence your ability to get pregnant.

To schedule a weight-management consultation with Dr. Wu or to arrange for insulin resistance testing, call the Delaware Valley Institute of Fertility & Genetics at (856) 988-0072.

Have an insurance question?

Call Carla Scott, DVIFG's staff insurance expert, for a free consultation. Call (856) 988-0072, extension 5, to schedule yours today.

NEWS You Can Use

Licorice and Libido

A daily licorice snack can reduce testosterone levels by 50 percent reports a new study. The ingestion of 7 grams of a commercially-prepared licorice product suppresses two enzymes that in turn reduce the male hormone concentration. Licorice consumption also has been found to alter the metabolism of the hormones responsible for hypertension.

Men who have a decreased libido or other sexual problem may want to stop eating licorice. According to the study testosterone serum levels return to normal after a few days without licorice.

Fertility Drugs and Cancer

A study conducted in Australia found that women who take fertility drugs are no more likely to develop breast, uterine, or ovarian cancer than women who do not take the drugs. Moreover, the researchers found that the number of times a woman took fertility drugs and the type of medications taken were also not tied to substantially higher rates of breast, ovarian, or uterine cancer.

The large-scale study followed 20,656 women one year after taking the drugs, and 9,044 women who were prescribed the drugs but did not take them.

While more research needs to be conducted on the long-term effects of fertility drug usage, women undergoing in vitro fertilization for a short period of time shouldn't worry about developing breast, ovarian, or uterine cancer from the treatment.

Caffeine Can Affect Miscarriage Risk

Pregnant women who drink more than six cups of coffee per day double their risk of miscarriage, according to a recent study published in The New England Journal of Medicine.

Researchers from the University of Utah found that the levels of paraxanthine (the primary substance produced when the liver breaks down caffeine) were 30 percent higher in the women who miscarried than in the women who delivered.

Based on their study and others, the researchers concluded that drinking one to two cups of coffee per day is safe for pregnant women.

Pregnant women also should watch their intake of soft drinks, tea, and chocolate, which also have caffeine in them.

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Conceptions

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Happy Birthday to...



Joseph Daniel Harrington, born on October 8, 1999, to Linda and Richard Harrington.

Samantha Lynn Bevilacqua, born on October 23, 1999, to Dawn and Shayne Bevilacqua.

Helen Sun-Chung, born on October 24, 1999, to June and Barry Sun-Chung.

Thomas Robert Castaldi and Joseph Andrew Castaldi, born on November 2, 1999, to Diane and John Castaldi.

Rebecca Lea Piccione, born on November 10, 1999, to Tara and Joseph Piccione.

Brianna Michele Parise, born on December 3, 1999, to Terese and Brian Parise.

All the babies and parents are doing well. Thank you, DVIFG!



Eytan R. Barnea, M.D., FACOG, director of DVIFG's Gestational Wellness and Early Pregnancy Loss Program, has enjoyed sharing his observations and research on early pregnancy with other medical professionals both here and abroad. An internationally recognized authority on the prevention of early pregnancy loss for over two decades, Dr. Barnea recently gave a state-of-the-art lecture on his research at the Department of Obstetrics and Gynecology at Kobe University in Kobe, Japan, and at the Fukui University School of Medicine in Fukui, Japan. Dr. Barnea spoke about new factors that control the growth and development of embryos. Look for more news on Dr. Barnea's discoveries and how they will impact patient treatment in future issues of *Conceptions* or visit our web site at: www.startfertility.com.

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