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Weight Loss & Menopause

A Special Report on Weight Gain During Menopause

FROM THE DESK OF:
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Dr. Cederquist

Caroline J. Cederquist, M.D., has appeared as a weight-management expert on national television, including the Dr. Phil, the Ricki Lake and Ananda Lewis shows. As one of only about 250 doctors nationwide to have achieved board certification in bariatrics – the specialty of medical weight management—Dr. Cederquist knows the difficult reality people face when trying to develop healthy eating habits and managing their weight. She built her specialty practice after working in family practice and founded BistroMD to offer a real-world solution to healthy dieting.

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The Menopause Metabolism: What is it?

The hot flashes, and the sudden mood swings are just a few of the things women can look forward to when going on the life-changing journey that is menopause. With symptoms like these plaguing every menopausal woman, most women just assume that sudden weight gain is just another expected sign of how menopause is changing their body. Most women never even consider that their sudden and despairing weight gain may not be their fault.

As the founding physician behind bistroMD, and as a female physician who specializes in weight management, weight gain during menopause and peri-menopause is the most common condition I deal with when it comes to women and their weight loss. So many women share the history of actively managing their weight when, all of a sudden, a switch has turned off and their metabolism has unexpectedly changed because of menopause. When I consult women with these frustrations, I usually hear something like: "I have always needed to work on my weight- eat the right things and exercise -and I still do. But now, everything I used to do to control my weight no longer

works. Instead, I am gaining weight despite being more careful, exercising more and eating less. Please help me! I am so frustrated..."

I hear this often, but some women also share with me that their weight has not been optimal for the past several years, but were at least stable with their degree of extra weight. However, with the onset of hormonal changes, their weight is no longer stable and they are gaining weight fairly rapidly. Less commonly, I will have a woman share the history that she never even thought about her weight before the hormonal changes menopause. She was one of the rare few who could eat whatever she wanted, did not have to exercise excessively, and was always normal weight and the envy of her friends. Now with these sudden hormonal changes, she has gained weight and it seems to be gathering in her abdominal area.

Is Weight Gain With Menopause Inevitable?

When trying to come up with a solution to the challenge of avoiding the seemingly inevitable weight gain, I thought, "Will I, like most of my patients and clients, be bewildered and gain weight in several years, despite doing everything I can to myself

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during the day-to-day clinical practice of medicine in weight management. It has been one of the driving questions that I seek answers for when I go to conferences or read the scientific literature. Over the years, almost every article I read about weight gain and menopause acknowledged that it occurs, but the same reason was always given: women become less active and eat more as they age. This explanation was unacceptable to me because I repeatedly heard a similar history from my patients who described the exact opposite behavior with regards to caloric intake and exercise. I began to wonder: Were all of my patients wrong? Were they just confused when they reported that five years ago they exercised twice a week, and now they exercise daily and with a personal trainer to boot! Or, when they bring in meticulous dietary logs showing they have eaten a 1200 calorie diet for the past three months and have gained weight; are they just underestimating all of their portions? I have always believed in my patients, and I knew there was more going on. Over the years, I have found some very encouraging answers to the “menopause dilemma” and my patients have been benefiting from my solutions.

Where Am I In This “Change of Life?”

Let’s define what menopause actually involves. Menopause officially occurs when a woman has stopped having menstrual periods for one year, OR when blood tests show that there are very high levels of pituitary hormones called gonadotropins.

Gonadotropins are hormones that are released by the pituitary gland in the brain to signal the ovary to release the appropriate hormones that cause an egg to mature and to be released each month. These hormone levels have a patterned rise and fall each month during a woman’s reproductive years.

Levels of gonadotropins become very high once the ovary is no longer able to respond to these hormones, and ovulation no longer occurs. As ovarian function ceases, the levels of the hormones made in the ovary—estrogen and progesterone—decline. This is known as peri-menopause, which is the term given to the years that lead up to menopause.

In these years, the ovary is starting to decline in function and an egg is no longer released consistently each month. Hormone levels

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become erratic, and sometimes months go by without normal ovulation. If hormone levels are checked in these years, the gonadotropins can be normal to mildly elevated. The associated symptoms can be hot flashes, night sweats, fatigue, mood changes and weight gain. This period of peri-menopause can actually last for a few years.

Not Just a Hormonal Change

It is no surprise that many women will do whatever it takes to correct hormonal issues in order to lose weight. It is typically not an issue of taking HRT (hormone replacement therapy) or not. Women know that there is no evidence that taking hormones or not taking hormones affects a woman's ability to control her weight with peri-menopause or menopause. Studies show that during the years after menopause, the average woman gains about 30 pounds. Women who take hormones may experience less initial weight gain, but several years later, women on these hormones have gained a similar amount of weight compared to women who have never used hormones before. With these results, it's clear that the replacement of hormones does not resolve the weight gain issue.

Hormone replacement therapy has long been controversial, and more so since the Women's Health Initiative (WHI) trial was published in 2002. This study showed that women who took the synthetic hormone Prempro were more likely to experience heart attacks or strokes. Prior to this study, the prevailing thought was that hormones protected a woman's heart because women experience more heart attacks and strokes after menopause, compared to pre-menopausal women. After menopause, a woman's risk of heart disease approaches that of men, whereas prior to menopause, women are much less likely than men to have heart disease. Since this study, hormone replacement therapy is still prescribed, if needed, during peri-menopause if physical symptoms--like hot flashes--become unbearable. Now, physicians are trying to use hormones for the shortest amount of time possible, and are no longer recommending hormone replacement therapy to prevent heart disease, which is what many physicians recommended prior to the WHI study.

Many women today plan to ride out menopause without HRT, using only supplements like black cohosh to ease symptoms. The interesting observation I have made over the past ten after menopause is still thirty pounds.

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Prior to 2002, many of the women I saw for weight concerns were on hormone replacement therapy; after 2002, very few of the women I saw for weight concerns were on these medications. Clearly, the problem of menopausal weight gain is not solved by adding reproductive hormones.

Research Sheds Some Light

New research on the effects of the female sex hormone estrogen in the brain, lend credence to what my patients have suspected about the hormonal changes that accompany aging --menopause itself causes weight gain. Scientists have long sought to understand how changes in hormones during menopause could account for the increase in appetite and accompanying weight gain that often occurs among women as they age.

To test this new theory, researchers used a series of animal experiments to show how estrogen receptors located in the hypothalamus (a hormone producing organ in the brain) serve as a master switch to control food intake, energy expenditure, and body fat distribution. The research showed that when these receptors are disabled, the animals immediately begin to eat more food, burn less energy, and pack on pounds.

This, understandably, is a recipe for weight gain—eating more and burning fewer calories. But, there is more: Researchers found that when estrogen levels in the animal's brains dipped, the animal's metabolic rate and energy levels also plummeted. The findings show the animals quickly developed an impaired tolerance to glucose and a sizable weight gain, even when their calorie intake remained the same. Additionally, the excess weight went straight to the abdomen, creating an increase in visceral fat which is fat stored around the internal organs.

For all of you women, who thought there was no hope for your weight gain, please read this line again: The laboratory animals gained weight even though they were given the same amount of food! My patients were correct. They were gaining weight despite not eating more, and even when they were eating less.

Why Is This Research So Exciting? What Makes it Such a Breakthrough?

This research is so exciting because it explains what I have observed clinically in my practice for over ten years. Whenever I evaluate a patient who needs help losing weight, I do a thorough

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history, physical and lab work evaluation. In the laboratory evaluation, I specifically test for insulin resistance and impaired glucose tolerance. For the past ten years, I have found that women, men and children who find it difficult to lose weight are almost always insulin resistant. The degree of insulin resistance is variable and individual for each patient, and I structure my successful treatment protocol around reversing this abnormal chemistry.

What Exactly is Insulin Resistance?

Insulin Resistance is a hormonal condition that I find in 80-90% of all of my patients. It is a metabolic condition that makes losing weight hard, and weight gain easy. When a woman is insulin resistant, her body makes the hormone insulin, but her body does not respond to it normally. Insulin is the hormone that is required for glucose (sugar) to enter the cells of the body for available energy. Someone who is insulin resistant has a difficult time moving glucose into the cells, so the cells of the body are often deprived of energy. This energy deficiency or cell starvation is highly stressful for the body. Further hormones are released that signal the body to store more fat AND to increase appetite.

One of the great frustrations is that once insulin resistance develops, it can lead to further and more severe insulin resistance. Fat stored around the organs inside the abdomen secrete hormones called adipokines, which increase insulin resistance, which leads to more storage of abdominal fat, which causes more insulin resistance.

Insulin resistance develops in most people as they age, but women experience the onset more dramatically than men, due to the hormonal changes of menopause. For many years, I have identified insulin resistance in my patients and have been able to treat and reverse it with good results. What I did not know was the mechanism of how or why women developed insulin resistance so rapidly after menopause. The animal research study provided scientific evidence to explain what I have observed clinically in my practice for many years.

We do see insulin resistance in women before menopause and in children, adolescents, and men. In these cases, insulin resistance develops due to genetic predisposition and

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and the abdominal distribution of fat that many overweight people struggle with.

The accumulation of abdominal fat puts both men and women at a heightened risk for cardiovascular disease, diabetes, high blood pressure, high cholesterol, stroke and several types of cancer. When menopause occurs, and body fat shifts to the abdomen, women find themselves no longer protected from these negative consequences as they were in their younger years.

Women who carry weight in their abdomen will have higher insulin levels in order to overcome the insulin resistance, and eventually higher blood glucose levels consistent with pre-diabetes. The abdominal weight causes bad cholesterol to increase while lowering good cholesterol, which is a pattern that contributes to heart disease. Abdominal fat also increases the level of inflammatory hormones, which also contributes to heart disease. In my opinion, it is the deposition of abdominal fat and not the lack of estrogen that causes women to experience more heart disease after menopause.

Insulin resistance develops due to several factors. This includes genetics, aging, abdominal storage of fat, and the hormonal

changes outlined above, which occur during menopause.

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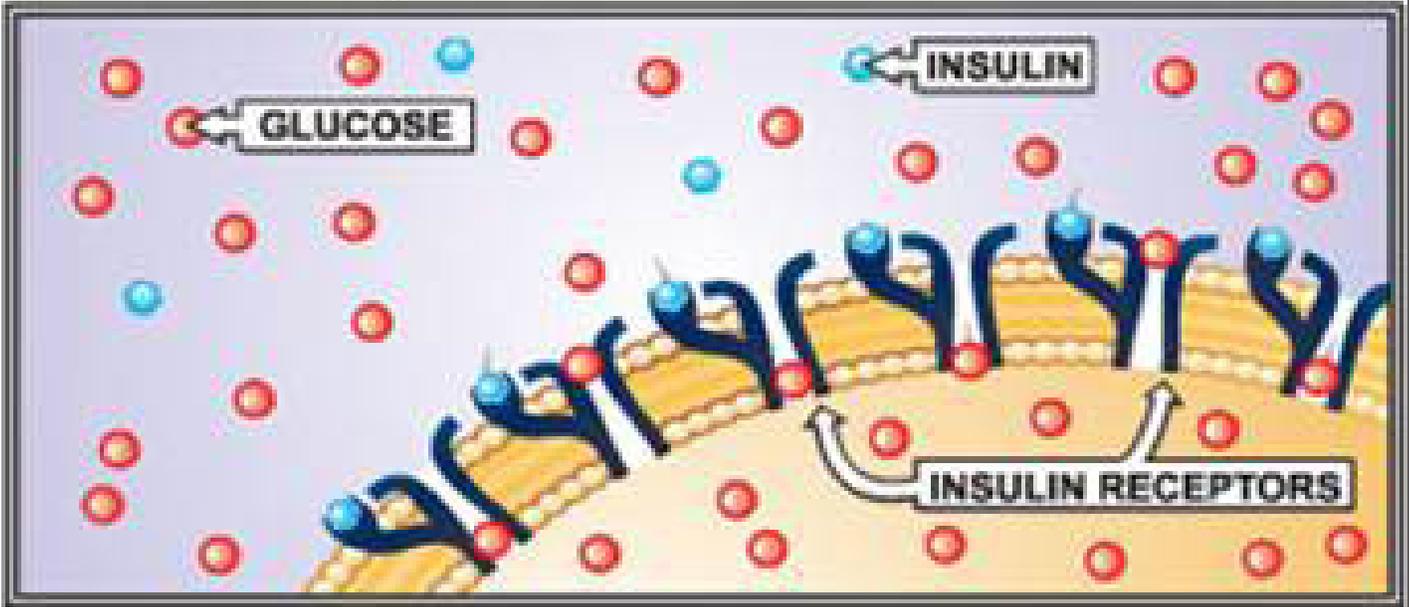
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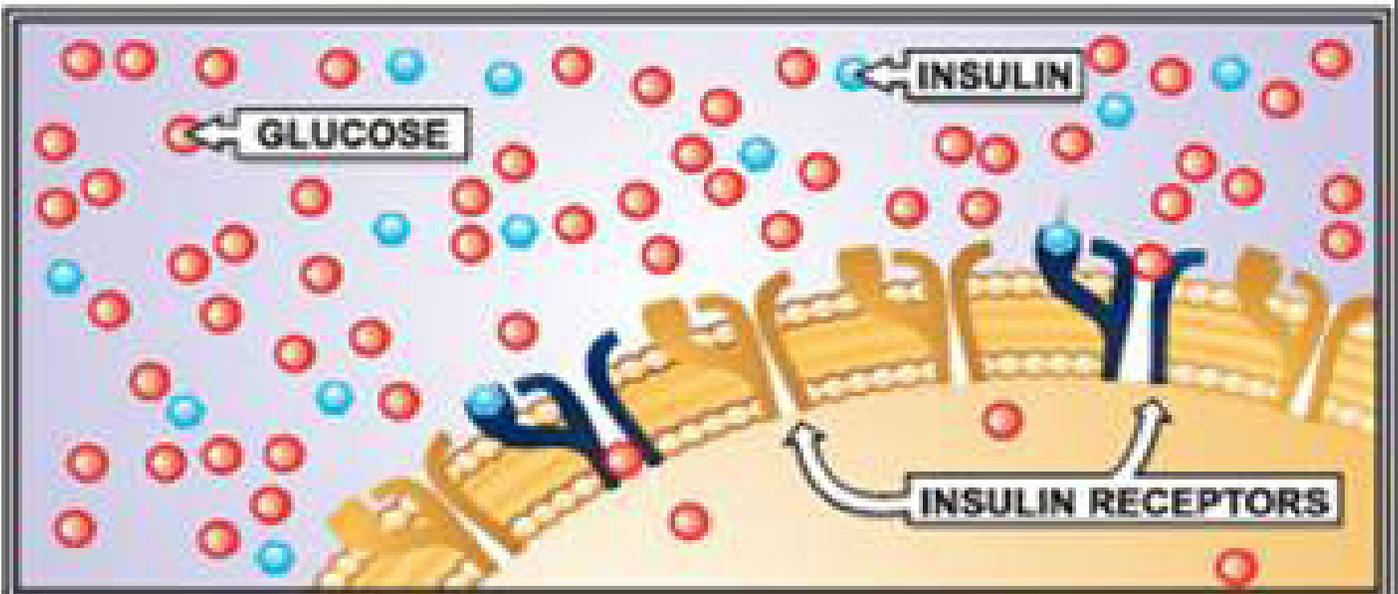
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Treating Insulin Resistance by Eating the Right Diet

For more than ten years, I have been able to help my patients reverse their insulin resistance with the proper diet for their metabolism. An important factor I must keep in mind when I create a dietary prescription is each person's carbohydrate tolerance. Carbohydrate tolerance refers to the ability of the body to metabolize and use nutrients. This is determined by hepatic (liver) regulation and peripheral usage. (How the other cells of the body use energy). The biggest factors that affect carbohydrate tolerance are diet, muscle mass, physical activity, age, and gender. changes outlined above, which occur during menopause.

For example: A young male athlete has a high tolerance for carbohydrates. He has a larger muscle mass because of his young age, male gender, and because of his high levels of physical activity. Due to these factors, this young, athletic male is able to utilize his carbohydrates and glucose at adequate levels because his muscles are very insulin sensitive. This young, athletic male would also be able to perform well with a diet high in carbohydrates, which is why so many young, male athletes have practiced carbohydrate loading before

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events of peak performance. This is so their cells have the fuel they need to supply their body with levels of needed energy.

This high carbohydrate diet, which is also the backbone of the food guide pyramid, provides optimal nutrition for the athletic male. In fact, the food guide pyramid was developed from information gathered by active men in the military.

This is great, but what about the post-menopausal woman? What does she need?

Most women become less active with age and experience a decline in muscle mass. Even women who continue to exercise experience a decline in muscle mass as they age, but the decline is much less than that seen with sedentary women. If a post-menopausal woman eats a high carbohydrate diet, one of two things will occur:

- 1) She will use the glucose for energy in her skeletal muscles, if she is very active.
- OR
- 2) She will store the excess calories in body fat.

As a woman's muscle tissue declines, fat tissue becomes the site where her extra dietary carbohydrates will be delivered and stored.

Usually, more is going into storage than is being utilized by muscle tissue. Her body gains more body fat, and it is usually in the central or abdominal area of her body.

Again, the rise in abdominal fat is one of the triggers in the cascade involving important metabolic hormonal imbalance of insulin resistance. The presence of insulin resistance makes it very, very difficult for high levels of carbohydrates to be used by skeletal muscle tissue. Women find that if they continue the same eating habits as they did when they were younger, they will have ongoing abdominal weight gain. In fact, continuing to eat a very high carbohydrate diet will increase insulin resistance, which is why weight gain is so progressive and often seems out of control.

A woman who previously ate a breakfast of cereal and fruit when she was insulin sensitive will find she rapidly gains weight with the same meal if she is insulin resistant.

Why a Proper, Nutritional Meal Plan is Important

So, what is the best diet for women in the peri-menopause or menopause years if they have a difficult time tolerating a high

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carbohydrate diet?

Post-menopausal women do better with a controlled carbohydrate diet that contains adequate lean protein. Controlled carbohydrate does not mean the no carb or very low carb diet that many women think of with regards to the Atkins diet or other similar low carb diets. Controlled carbohydrate means that the total amount and timing of the carbohydrates needs to be carefully planned and structured.

Just as important as the balance of carbohydrates, is the balance of protein and fat in the diet of women who experience these hormonal changes. Many women follow diets that are deficient in protein, which needs to be corrected for weight loss to occur.

Often, my dietitians spend much more time convincing our patients to eat enough rather than admonishing them for eating too much. Women who work with me learn that adequate protein is not excessive protein and all protein does not have to be sourced from meat. The scientific dietary prescription I recommend needs to be created in a meal plan that every woman can benefit from. Weight gain during menopause is the norm in the United States but it doesn't have to be.

Thousands of women who have worked with me over the years have been able to adjust their diet to meet the nutritional needs that are unique to this stage of their lives. Often women will report being unable to lose any weight at all, despite starving themselves or exercising more than they ever did before. Significant calorie restriction, without the proper nutrients for this stage of life will not produce a loss in body fat. Women who follow this type of diet will lose lean muscle tissue and their metabolism will drop to deter starvation. As she breaks her rigid dieting, she rapidly gains body fat due to her decreased metabolic rate.

The Benefits of Eating BistroMD

The meal plan described above that is so successful for women in my medical practice is available to you through BistroMD. With 15 years of clinical experience, combined with recent research in the field of metabolic sequence, we are able to offer results to women who have been personally unable to lose weight.

Each meal available from BistroMD has been scientifically balanced with the right combinations of food to help your changing body retrain its metabolism to promote healthy weight loss.

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