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Why Can't I Lose Weight?

Feel like the weight loss odds are against you? Here's why it can be harder for some people to lose weight. By Elaine Magee, MPH, RD, Reviewed by Louise Chang, MD

Have you ever felt like trying to lose extra pounds or keep them off is just more difficult for you than for other people? Recent research suggests you might not be imagining this. For some people, thanks to a combination of genetics and physiological differences, it really is easier to put on weight and harder to take it off.

Most of these people are women, who have a different genetic blueprint than men. Up until maybe 100 years ago, it was favourable for women to have extra fat stores and efficient metabolisms. This helped to ensure women's survival during times of famine and illness, and women's ability to nourish babies while pregnant and breastfeeding.

"We know for sure it's both genetic and environmental why some people are overweight and obese," says June Stevens, a distinguished professor at the University of North Carolina at Chapel Hill.

The genetic differences that determine a person's tendency to gain weight are less noticeable in environments where exercise is a part of everyday life and where there is NOT an abundance of great-tasting, affordable food. Most Americans, of course, live in the opposite situation. Stevens describes it as an "obesogenic" environment: a set of circumstances that encourages people to eat and drink more calories than they expend, and thus become obese.

Here are some of the possible reasons why the weight loss odds could be stacked against you, making it feel like you just can't lose weight:

1. You have a low resting metabolic rate, and high metabolic efficiency.

If you have a lower resting metabolic rate, your body spends fewer calories maintaining your body at rest than someone your size with a higher rate. And, if your body is metabolically efficient, it burns fewer calories while in motion.

Differences in resting metabolic rates and metabolic efficiency may explain up to about 22 pounds of weight gain, says Victoria Catenacci, MD, a researcher with the University of Colorado at Denver. This could help explain differences in normal weight vs. overweight, but many researchers believe that higher levels of excess weight (clinical obesity) are probably a result of excessive food intake and/or low physical activity.

2. You are female.

There are a number of reasons why men have the weight loss edge over women.

First of all, men have more muscle mass, compared to women, and women have a higher percentage of body fat than men. Muscle tissue burns more calories at rest

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than fat tissue. So it's no surprise that men's resting metabolic rate tends to be significantly higher than women's.

Also, women often deposit extra body weight in the hips, legs, and buttocks, while men tend to store extra weight in the midsection, says Robin Duncan, PhD, a postdoctoral fellow at University of California Berkeley's Department of Nutrition Science and Toxicology. Extra fat around the gut is more actively recruited during times of energy need and thus may be easier to lose than fat on the legs and hips, explains Duncan.

Further, because men tend to be larger than women, they tend to burn more calories doing the same exercise as women.

"If they both run at the same pace for one hour, the woman will burn 500 calories, for example, while the man will burn closer to 700 calories," says Catenacci.

As if this weren't unfair enough, men also seem to be better at suppressing hunger when presented with food, according to findings of a recent study.

After 23 healthy, non-obese people fasted for 17 hours, researchers used cognitive inhibition techniques to try to suppress thoughts of hunger. They found that the technique significantly lowered the desire for food only in men. Subsequent brain scans of the men showed a decrease in activation in brain regions that are known to play a role in processing our awareness of the drive to eat.

3. You experience hunger, satisfaction and stress differently than others.

Stevens believes that differences in how people experience hunger and cope with stress are important in determining who becomes overweight and who doesn't.

"Individual genetic differences in the numerous hormones and peptides made by the gut, brain, and fat cells (that regulate appetite, hunger, and satiety) may play a big role in predisposition to obesity and difficulty losing weight," says Catenacci.

Researchers are only beginning to understand what might be at play here, and how it affects what and how much a person eats.

4. You don't like to exercise (it could be in your genes).

According to Daniel Pomp, PhD, from the University of North Carolina at Chapel Hill, animal research suggests that 25%-50% of an individual's propensity for voluntary exercise is under genetic control.

Pomp studies mice that genetically prefer to exercise because they were bred for high levels of wheel running. Expect more research in the next few years on "exercise genes" and how they might also be at play in humans.

5. Your mother ate a high-fat diet while pregnant.

There is some preliminary research in primates that suggests eating a healthy, moderate-fat diet is important for the future weight and health status of the developing fetus, regardless of whether the pregnant mother was obese or lean.

6. What you ate as a toddler could be affecting how easily you gain weight as an adult.

Research from Raylene Reimer, PhD, RD, a researcher from the University of Calgary, has indicated that the food we eat affects how active certain genes are in our body. "In particular, we believe that our diet has a direct influence on the genes that control how our bodies store and use nutrients," explains Reimer.

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In Reimer's research with rats, a group that ate a high-protein diet when young packed on much more weight and body fat as adults compared to another group of rats raised on a high-fibre diet.

More research needs to be done to understand the mechanisms at work here, but this research suggests how complex weight gain really is.

Can't Lose Weight? Focus on Health

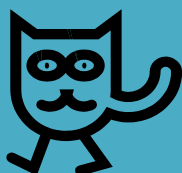
If several of these reasons apply to you, don't get discouraged. You can't change your genes, but you can change how you interact with your environment. The positive way to proceed is to eat and exercise for the health of it. Eating mostly healthy foods, avoiding overeating, and exercising regularly is important for your overall health.

And don't beat yourself up if you can't fit into that pair of skinny jeans. The truth is that people naturally come in all sorts of shapes and sizes, says Joanne Ikeda, MA, RD, nutritionist emeritus of the University of California Berkeley nutrition science department, who has spent her career researching weight and health.

"It's so sad that we are convinced that the normal range of human body sizes and shapes should fit into a narrow spectrum when size diversity is, in fact, what naturally occurs in the human population," Ikeda says.

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publish it

Molecular Proof: Exercise Keeps You Young

Intense Activity Keeps Telomeres Long

By Salynn Boyles Reviewed by Elizabeth Klodas, MD, FACC

Dec. 1, 2009 -- People who exercise regularly tend to stay healthier as they age, and now new research may explain why at a cellular level.

Compared to people who did not exercise, elite runners in the study had cells that looked much younger under a microscope.

Specifically, investigators measured the length of telomeres -- the DNA on either end of thread-like chromosomes.

Just as the plastic tips on the ends of shoelaces keep the laces from fraying, telomeres protect the chromosomes that carry genes during cell division.

Each time a cell divides, telomeres get shorter. When telomeres get too short, cells can no longer divide and they die.

Researchers now believe telomere shortening is critical to aging, making people more vulnerable to diseases such as heart disease, diabetes, and cancer.

"Telomeres can be thought of as a biological clock," lead researcher Ulrich Laufs, MD, of Homburg, Germany's Saarland University tells WebMD. "If they are shorter than a critical length, the process of programmed cell death starts."

Exercise and Telomeres

The new research involved animal and human studies designed to determine how exercise impacts telomere length.

In the animal studies, mice that ran on a running wheel for as little as three weeks showed evidence of increased production of telomere-stabilizing proteins, which protected against cell death.

In the human studies, middle-aged professional athletes who ran about 50 miles a week and had done so for many years had longer telomeres than healthy, age-matched non-athletes who did not exercise regularly.

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Not surprisingly, the athletes also had slower resting heart rates, lower blood pressures, and less body fat.

The study appears in the Dec. 15 issue of the American Heart Association journal *Circulation*.

“This is the first time it has been shown at the molecular level that exercising has an anti-aging effect on the cardiovascular system,” Laufs says.

American Heart Association spokesman Barry Franklin, PhD, calls the new research “phenomenal.”

“In many respects, I think this is a blockbuster study that complements research in twins published last year,” he tells WebMD.

Exercise May Trump Genes

That study suggested exercise might trump genes when it comes to keeping people young.

Researchers found that telomere length was related to activity level. People who engaged in the most exercise had telomeres of similar length to inactive people up to 10 years younger.

When one twin was largely sedentary and the other was active, the active twin tended to have longer telomeres.

The most active people in the twin study engaged in just a few hours of moderate to vigorous activity a week, suggesting that it is not necessary to run 50 miles a week to achieve the anti-aging benefits of exercise.

“In my own lab, I have seen a 3-month conditioning program raise oxygen capacity significantly,” Franklin says.

He is director of cardiac rehabilitation and the exercise laboratories at the William Beaumont Hospital in Royal Oaks, Mich.

“In both studies, active people had cells that were measurably younger than inactive people,” he says. “This striking finding may explain how exercise helps prevent heart attacks, diabetes and other degenerative diseases.”

Job Opportunities

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Water Exercise for Fibromyalgia: Easing Deep Muscle Pain

Water aerobics are easy workouts for people with fibromyalgia pain.

By Jeanie Lerche Davis, Reviewed by Brunilda Nazario, MD

If you have fibromyalgia pain, you're likely clenching right now.

"Clenching is an involuntary reaction to stress," says Doris Cope, MD, director of Pain Management at the University of Pittsburgh Medical Centre. "People tense their muscles, and probably don't even realize they're doing it. That reduces blood flow to the muscles, which causes pain."

That's why a stressful lifestyle -- plus too much couch time -- is a double-whammy for conditions like fibromyalgia. Too little exercise slows blood flow to muscles, so fibromyalgia pain just gets worse.

Exercise Helps Fibromyalgia Pain

Revvng your pulse is one remedy, Cope says. "Running, walking, having sex with your husband -- these increase your pulse rate so you're getting more blood to muscles. That will reduce pain in muscles. The worst thing [for pain] is to lie there, because then it will only hurt more."

Studies show that walking, stretching, and strength training all help control fibromyalgia pain and muscle tenderness. Exercise just three times a week improves life on many levels. Exercise can relieve fatigue and depression, as well as help people feel better about themselves, more in charge of their lives.

"We know that exercise is the best thing for depression," Cope says. "It helps your mood, helps your sleep, and that helps your pain."

If starting an exercise program seems too painful, start slowly. Start with flexibility exercises -- stretching that improves your range of motion. Yoga classes, walking around the block, playing a round of golf can also get you started.

Water Exercise and Fibromyalgia Pain

Water exercise -- aka, water aerobics -- is the easiest workout for people with fibromyalgia pain.

"If you can't exercise because of obesity, water therapy is a good place to start," Cope says. "Warm water can be very comforting. The exercise gets blood flow to muscles and tendons. And if you're in the water, your joints are not being stressed during exercise." Also, water offers resistance, which helps muscles get stronger.

You don't need to know how to swim for a water exercise class. In some classes, you work out in shallow water with your head completely above water. In other water aerobic classes, you bob in deep water (with foam belt or life jacket).

The natural buoyancy of water helps you move -- so you can do exercises that would otherwise be painful. These exercises can be done with an instructor or physical therapist in a heated facility or in a backyard pool.

Studies from Spain indicate that water aerobics improves quality of life for women with fibromyalgia pain in the long-term. In one 12-week study, women who exercised in warm water -- for 60 minutes, 3 times a week -- reported improved physical and mental well-being. They also had less fibromyalgia pain and more vitality. As for their state of mind, they reported feeling less depressed, and more sociable.

"If we can get people to swim, do water aerobics, walk up stairs - something that increases pulse rate, it will help a lot with their pain," Cope says. "We're talking 20 minutes, four times a week. That's all. It can make a big difference."

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