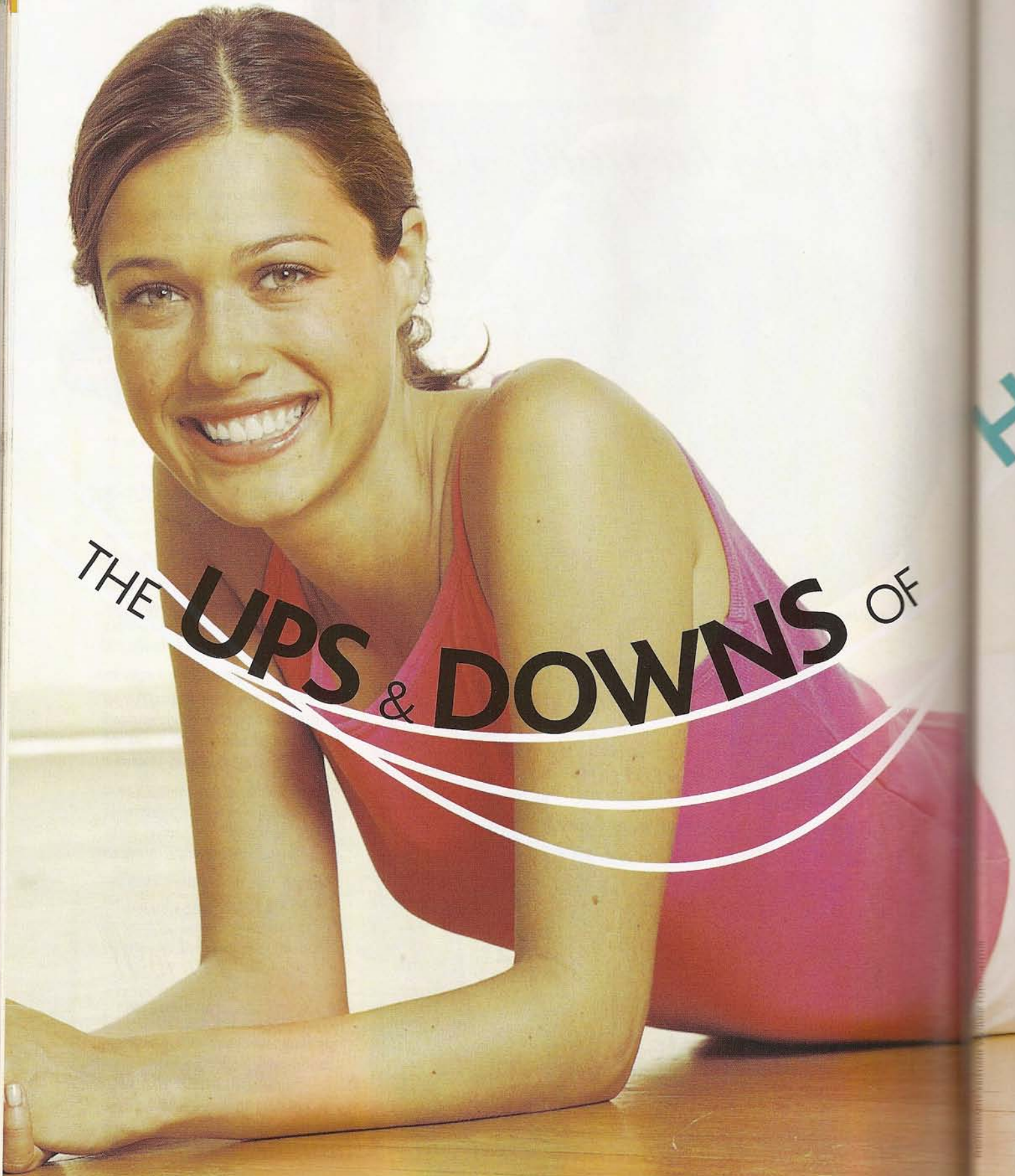


YOUR WEIGHT, YOUR HEALTH **PART 2**



THE **UPS & DOWNS** OF



HORMONES & WEIGHT

How often have you or a girlfriend muttered, "It must be my hormones!" to explain away the sudden appearance of some fleshy excess at the waist, a foul mood, or the inability to put down a bag of Oreos? Countless women contend that their hormones—that mysterious mix of chemicals that ebb and flow throughout the body—are at the crux of all their problems. The fact is you probably don't realize just how far-reaching their influence is: Many women think their hormones regulate only their reproductive health, but it turns out that various hormones influence the way you look, feel, and function 24/7. What's more, in recent years physicians and scientists have discovered the profound effect hormones can have on your weight, playing a role in how much you weigh, how much you struggle with your weight, when you're hungry or full, and even how your body is shaped. Here we take a comprehensive look at the latest findings on the intricate connections between your hormones and your weight. We also supply you with the tools you need to better understand and manage both.

BY ELINOR NAUEN

“Is it my imagination, or have I gained weight?”

Her weight had fluctuated since she was a teenager, but last year Jessica, 24, mysteriously gained more than 30 pounds. "I felt I was growing and growing—and I couldn't do anything about it," says the public relations executive. "I had just moved from Arizona to California, so at first I assumed that I was doing something different. I had also started a new job. Over Thanksgiving my family even asked me if I was pregnant! After that, I went to the doctor to try to find out what was going on. He ordered a series of tests and discovered I had hypothyroidism."

THE HORMONE CONNECTION Too little thyroid hormone (aka hypothyroidism) can wreak havoc on your waistline, as Jessica experienced. But other hormones can also affect your weight. Here is some background that helps explain the link: Scientists used to view fat cells as storage compartments, almost like mini-duffel bags in which energy was kept in case it was needed. In the last decade, however, research has revealed that the fat found in women mainly in the hips and thighs (subcutaneous fat) is basically harmless, whereas the spare tire around the middle contains visceral fat that manufactures hormones that regulate appetite, insulin, and weight. This new view has transformed obesity research and treatment. **"All of a sudden we see obesity in a different light,"** says Louis Aronne, M.D., director of the Comprehensive Weight Control Program at New York–Presbyterian Hospital/Weill Cornell Medical College. "Before, we knew that obesity was associated with diseases; now we can show not only *how* obesity can cause health problems but also that there are specific physical factors that make weight difficult to manage."

For example, if you're overweight or obese, fat cells in the abdomen—and the hormones they produce (such as estrogen)—can get out of whack. One study found that obese postmenopausal women with large waists have higher estrogen levels than healthy-weight postmenopausal women. Yet there's a limit to how large a fat cell can become: Once it maxes out, it sets off the production of a new one nearby. A slim person has about 40 billion fat cells, but someone who is obese can have up to triple that. "Once you pack on extra fat cells, they will always cry out for more food—that's their job," says Marie Savard, M.D., author of *The Body Shape Solution to Weight Loss and Wellness* (Atria, 2006).

Unfortunately, you can't entirely control where your fat settles. **Your personal balance of estrogen to androgen (a male hormone) at puberty influences your shape.** Pear-shaped people tend to pack on pounds in the hips and thighs, whereas apple-shaped types add extra weight in the abdomen, which contributes to a number of health risks, especially type 2 diabetes and heart disease. Men are often apple shaped throughout their lives. But with menopause and the loss of estrogen, women tend to become more apple shaped as they get older, notes Dr. Savard.

Hormonal perk: Your body burns up to 300 extra calories daily during the week before your period. Many women give in to cravings, however, and consume more than that. Voilà: weight gain.



“Why always

feels
“My
block
beca
confe
in no
the c
to, an
THE
woma
proba
least
scien
have
or sat
may
subst
(whic
horm
where
profes
Univer
comes
plays
exper
which
person
cut cal
thresh
convic
signifi
leptin
and se
The
is mis
neither
the bra
the bod
the app
have su
is really

“Why am I always famished?”

No matter how much she tries to control it, Barb, 45, feels as though her appetite has a mind of its own. “My appetite is definitely my biggest stumbling block: I can’t seem to let myself get hungry because I don’t like any amount of discomfort,” confesses the manager for a small investment firm in northern California. “So I tend to snack around the clock. I’m sure I’m eating way more than I need to, and of course I have gained weight.”

THE HORMONE CONNECTION For many women like Barb, constant feelings of hunger are probably linked to a number of factors, not the least of which involves hormones. In recent years, scientists have identified a host of hormones that have a bearing on how and when one feels hungry or satisfied. The most well known ones, which you may have heard about, are leptin (which plays a substantial role in hunger and satiety) and ghrelin (which stimulates the appetite). “All these hormones affect how energy is burned and where fat goes,” explains Robert Lustig, M.D., a professor of pediatric endocrinology at the University of California, San Francisco. When it comes to leptin, which is produced in fat cells and plays a key role in regulating energy intake and expenditure, appetite, and metabolism (the rate at which your body burns calories), everyone has a personal, genetically determined threshold. “If you cut calories, you go below your natural leptin threshold,” Dr. Lustig explains. According to some convincing research, losing weight causes a significant decrease in leptin levels. This dip in leptin levels may in turn increase your appetite and send you to the refrigerator.

The problem is that in obese people “the brain is misreading the leptin and insulin signals. Often neither one works correctly,” Dr. Lustig says. “If the brain can’t read the leptin signals, it causes the body to reduce the metabolism and increase the appetite. This explains why people on a diet have such a hard time losing weight. For them, it is really an uphill battle.”

CAN HORMONAL CHANGES MAKE ME DEPRESSED?

Maybe. It’s no secret that women are hit twice as hard by depression as men—and hormones may be part of the reason. “Neuroscientists are finding that gene variations and brain circuits that are affected by estrogen and serotonin may increase women’s risk for depression,” says San Francisco neuropsychiatrist

Louann Brizendine, M.D., author of *The Female Brain*

(Broadway Books, 2006). That’s why women may be vulnerable to mood disturbances at hormonally unstable times in their lives, such as menopause.

In fact, there is a 14-fold increase in the risk of depression during perimenopause, the 2- to 9-year period leading up to menopause, Dr. Brizendine says. “During this period, depression can come out of the blue—even in women who’ve never previously experienced it.”

The reason: As you approach menopause, your estrogen levels gradually decline, and low estrogen levels may decrease the levels of such brain chemicals as mood-elevating serotonin,

dopamine, and norepinephrine. In addition, sleep disturbances (from hot flashes and night sweats) are a problem for menopausal women, and lack of sleep can worsen depression.

—Bethany Gumper

FEEL BETTER NOW

- **GET MOVING** Exercise is a natural antidepressant; plan to walk with a friend for at least 30 minutes most days.

- **CURB CARBS** Depression can cause cravings for refined carbs (cookies and cakes). You might feel better temporarily, but you’ll feel worse after your blood sugar crashes. Replace refined carbs, sugars, and unhealthy fats with low-fat protein, complex carbs, and omega-3 fatty acids.

- **TALK TO YOUR DOC** Many women stopped using hormone therapy (HT) after findings suggested that it could raise the risk of breast cancer, blood clots, stroke, and cardiovascular disease. Now researchers say the concerns may have been overstated. In addition to relieving hot flashes, HT boosts estrogen levels in the brain and reduces symptoms of depression. Another option: You may benefit from antidepressants (some have also been shown to reduce hot flashes).

continued on p. 150