

Are Toxins Fattening?

By Elisabeth Hsu-LeBlanc

It's hard to find an evening news program or a magazine that doesn't proclaim a fat epidemic. Overweight and obesity are serious health risks—caused by a number of factors from super-sized portions to sedentary lifestyles. Today, experts are also beginning to ask whether environmental factors may also play a role not only in weight gain but also in the difficulty so many people have in losing and keeping weight off. Interestingly, the biggest weight increases population-wise closely mirror the largest increases in synthetic chemical use. (See page 20.) Since many of these chemicals actually cause weight gain, this similarity seems more than coincidental.

A TOXIC WORLD

"One new chemical enters industrial use every 20 minutes," says Paula Baillie-Hamilton, MD, only to join many hundreds of thousands of synthetic chemicals already in use. "As a result, the average person living in the developed world is now contaminated with up to 500 industrial toxins, few of which have been properly tested for harmful effects." Indeed, the US has only recently begun long-term research to establish a baseline for toxins in a portion of our population (see News Bites). Five percent of the 1,007 women in one such study had troubling levels of polychlorinated biphenyl (or PCB 188), which has been linked to breast cancer and weight gain. "A staggeringly large number of the most common diseases of the developed world [most kinds of cancer, hormonal disorders, and low energy including chronic fatigue syndrome, immune disorders, heart disease, and sexual problems] are related to or can be triggered by these toxins," Dr. Baillie-Hamilton adds. Unless certified organic, food is apt to be treated with antibacterials, fungicides, herbicides, insecticides, and rodenticides. Furthermore, non-organic animals raised for food consume synthetic pesticides from their own feed, as well as antibiotics and growth hormones.

Conventional manufacturers deliberately add synthetic chemicals to processed foods to increase their shelf life. And toxins, like plasticizers, often leach into foods, especially acidic ones, stored in synthetic containers.

Created from fossilized animals and plants, synthetic chemicals are similar enough to natural ones to be easily assimilated into the body's natural processes. But since synthetics have slightly different structures and greater stability, they aren't as easily broken down or switched off as natural substances. Most worrisome, these artificial chemicals are alien to the body's well developed detoxification systems. "Because some are so untouchable, our bodies cannot get rid of them, and so they keep on accumulating throughout our lives," explains Dr. Baillie-Hamilton in The Body Restoration Plan.

THE FAT CONNECTION

"A number of these chemicals are soluble in fat and so collect in tissues high in fat," says environmental biologist Sandra Steingraber, PhD. For example, synthetic organic solvents used in dry cleaning enter our bodies on "A liver overloaded with" pollutants and toxins cannot efficiently burn body fat," says nutritionist Ann Louise Gittleman, PhD, CNS. "A tired, toxic liver is the number one weight-loss stumbling block." touch, only to take up residence in fatty tissues, like the breast and liver.

Synthetic chemicals, which have been used to fatten up animals for meat production by reducing their ability to use their own existing fat stores, also contribute to weight gain in humans. Animals fed low doses of organophosphates gain weight on less food. While their use as growth promoters in meat production has been banned after research found them highly toxic, organophosphates remain a common pesticide and are used in the manufacture of gasoline additives, lubricating oil, and rubber. "Once organophosphates get into your body, chances are they will proceed to damage your weight control systems, making it just that little bit' harder to lose weight in the future," says Dr. Baillie-Hamilton.

"A liver overloaded with pollutants and toxins cannot efficiently burn body fat," says nutritionist Ann Louise Gittleman, PhD, CNS. "A tired, toxic liver is the number one weight-loss stumbling block." In addition to slowing down the metabolism, organophosphates "can seriously impair a person's ability to exercise, permanently damaging nerves, destroying muscle fiber, reducing the body's ability to fuel exercise, and even reduce a person's desire to exercise," adds Dr. Baillie-Hamilton. Considered less toxic (so more widely preferred) agricultural chemicals, carba-mates are often used on crops just prior to harvest, leaving less opportunity for them to be washed off by rain. Because these synthetic chemicals also help fatten animals and fight off bacteria, carba-mates are widely used in animal husbandry. Like organophosphates, they make a little food go a lot further—and even lower the overall level of physical activity. Other synthetic chemicals used in food production and found in our environment appear to damage the thyroid gland, which secretes hormones that regulate metabolism.

LOWER YOUR TOXIC LOAD

Whenever possible, buy certified organic—particularly foods likely to be high in toxins: butter and other fatty dairy products, apples, cucumber pickles, strawberries, raisins, peppers, spinach, and collard greens. Select chemical-free poultry and meat, but don't eat the skin. Switch from carnivorous fish (sea trout eat large quantities of smaller fish, so contain higher levels of persistent synthetic chemicals) to those that feed lower on the food chain (like cod and other white fish). Drink filtered water and organic beverages.

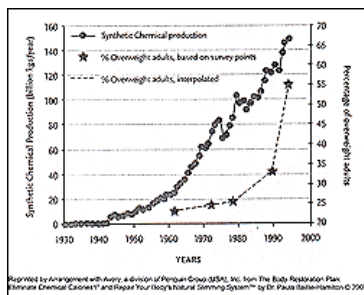
Support your body's natural detoxification system with nutrients. "Our need for certain vitamins has increased because they're excreted more rapidly from our bodies by chemicals or are used up in larger quantities when we process toxins," says Dr. Baillie-Hamilton. She recommends taking flaxseed or non-contaminated fish (omega 3) oil with meals, along with gamma linoleic acid (omega 6), amino acids (glutathione, methionine, tyrosine, and 5-HTP), and a well-balanced multiple vitamin and mineral formula.

SENSIBLE WEIGHT LOSS

Eat sensible portions, remembering that less is more when it comes to keeping your weight down. A weight-loss system, like the Fat Flush protocol (see page 19), that combines detoxification with a well-balanced diet can support healthy liver function. "Probably nothing you can do to control

your weight is as important as keeping your liver healthy," says Dr. Gittleman. "This means avoiding as many damaging substances (like alcohol, caffeine, many medications, sugar, and trans fats) as possible, while embracing liver boosters." Strengthen your liver with milk thistle, and consider soluble fiber (pectin and psyllium seed) to help remove toxins from the body.

As you begin to lessen your toxic load and support your hormones, liver, and natural detoxification system with supplements and a sensible eating plan, start working out regularly. Many people on the Fat Flush program find they regain energy quickly, making it much easier to exercise. The right workouts will help keep off unwanted pounds, even after you achieve your ideal weight. •



SELECTED SOURCES

- The Body Restoration Plan by Dr. Paula Baillie-Hamilton (\$24.95, Putnam Penguin/Avery, 2003)
- "CDC Says Toxin Levels Falling, but Sees Risks" by David Arnold, Boston Clohe, 2/1/03
- The Fat Flush Cookbook by Ann Louise Gittleman, CNS (\$19.95, McGraw-Hill, 2003)
- The Fat Flush Plan by Ann Louise Gittleman, CNS (\$21.95, McGraw-Hill, 2002) » Living Downstream by Sandra Steingraber, PhD (\$14, Vintage, 1998) " "Second National Report on Human Exposure to Environmental Chemicals," Centers for Disease Control, 1/03

TWO-WEEK FAT FLUSH DIET

Supporting your overworked liver, this popular program metabolizes fat, lowers cholesterol, balances hormones and the immune system, and neutralizes toxins. You need:

- 1 Tbsp (twice daily) organic high-lignan flaxseed oil to drizzle over salads and vegetables

- Up to 8 oz lean protein daily (organic or grass-fed): skinless chicken or turkey, beef or lamb, fish or seafood, and whey; tempeh and/or tofu up to two times a week
- Up to 2 eggs a day (omega-3-enriched and organic)
- Unlimited vegetables (preferably organic), raw or steamed: asparagus, bamboo shoots, beans (and sprouts), broccoli, Brussels sprouts, cabbage (including Chinese), cauliflower, carrots (only one a day), chives, cucumbers, daikon, garlic, eggplant, jicama, mushrooms, okra, olives (three a day), radishes, summer squash, spinach and other leafy greens, and tomatoes
- 2 portions daily fresh fruits (preferably organic): 1 small apple or orange, 1/2 grapefruit or pomegranate (or 1 small pomegranate), 2 medium plums, 1 nectarine or peach, 10 large cherries, 6 large strawberries, or 1 cup blueberries, blackberries, and raspberries In addition, drink 8 glasses of cranberry water daily (fill two 32-oz bottles with 4 oz each of unsweetened cranberry and 28 oz filtered water). If you need a sweetener, add the herb stevia to taste. Anyone allergic to cranberries can use 2 oz of unsweetened pomegranate juice to 30 oz pure water. Drink an 8-oz cup of hot water with the juice of half a lemon before breakfast. If you must have caffeine, drink 1 cup of organic coffee every morning.

Sample Day:

On awakening: Drink 8-oz glass of cran-water with fiber •
Before breakfast: Drink 8 oz hot water with lemon juice

Breakfast:

- Asparagus-mushroom omelet, using 2 eggs, veggies, and a dash of cayenne, with 8-oz glass of cran-water
- Snack: 1/2 grapefruit
- 20 minutes before lunch: Drink 8-oz glass of cran-water

Lunch:

- 4 oz broiled chicken (marinated in lime juice and cilantro), steamed Swiss chard, okra with 1/2 Tbsp flaxseed oil, shredded cabbage with 1/2 Tbsp flaxseed oil, and 8-oz glass of cran-water
- Mid-afternoon: drink 8-oz glass of cran-water
- 4 pm snack: 1 small pear
- 20 minutes before dinner: Drink 8-oz glass of cran-water
- Dinner: 4 oz broiled sole brushed with low-sodium broth, garlic, and parsley; Marinated Artichoke Salad (see below); steamed watercress with lemon
- Mid-evening: Drink 8-oz glass of cran-water with fiber

Dinner:

- 4 oz broiled sole brushed with low-sodium broth, garlic, and parsley; Marinated Artichoke Salad (see below); steamed watercress with lemon
- Mid-evening: Drink 8-oz glass of cran-water with fiber

Note: This stage of Fat Flush is not recommended for those who may be pregnant, are breast feeding, or have a kidney or eating disorder (anorexia)—without professional supervision.