



The unusual suspects

Our weight loss obsession has traditionally focused on the Big Two — diet and exercise, but **Pat Thomas** explains in a new book, it's the 21st century that's making us fat.

THE FAILURE of gold-standard solutions such as calorie counting has motivated some scientists to suggest that we must be missing something in the battle against obesity and to look beyond the usual explanations.

A 2006 paper in the *International Journal of Obesity* courageously attempted to explore the “road less travelled” in obesity research, and suggested at least 10 additional factors for obesity that have nothing to do with the usual sins of gluttony and sloth.

The authors, made up of a panel of doctors from across the US, concluded that medical science had a tendency to “focus overwhelmingly on food marketing practices and technology, and on institution-driven reductions in physical activity (the Big Two), eschewing the importance of other influences”.

They further noted that the acceptance of the idea that too much food and too little exercise is the sole cause of obesity ... “has created a hegemony whereby the importance of the Big Two is accepted as established and other putative factors are not seriously explored. The results may be well-intentioned but ill-founded proposals for reducing obesity”.

In an effort to broaden the debate, the authors suggested that since being overweight or obese was a modern problem, perhaps many of the putative contributors to the problem causes may also have their roots in modern life. And this was borne out by their comparative review of the available research.

Their conclusion was that even if some of these causes have only a small effect, they may interact with each other and with other factors in ways that greatly magnify their individual effects.

Their 10 most prominent contributors to obesity in this particular review were:

1 Sleep debt
Too many of us are getting too little sleep and the resulting sleep debt can alter hormone levels and trigger an increase in body weight.

Sleep debt is also associated with insulin resistance and diabetes, and with increased hunger and appetite.

2 Pollution
Hormones control body weight and many of today's pollutants greatly drastically alter levels of key hormones. Significantly, many of these pollutants are lipophilic (fat-loving). Once in the body, they get stored in fat and, because they are so toxic, the body resists burning fat and thus liberating these toxins back into the bloodstream.

3 Air-conditioning
We burn more calories when the environment is too hot or too cold for comfort. But more people than ever live and work in temperature-controlled homes and offices. This has lowered the number of calories that we burn each day.

4 Decreased smoking
Because of its effects on the circulation and the nervous system, smoking reduces weight. In many developed countries people are smoking much less. While no one would suggest

taking up smoking as a means to lose weight in the 21st century, we will have to deal with the effects of first poisoning our bodies with tobacco (creating a false thinness) and then coming off the drug, which can cause rebound (but temporary) weight gain.

5 Prescription medication
Many different drugs — including contraceptives, steroid hormones, diabetes drugs, some antidepressants, and blood-pressure drugs — can cause weight gain. Use of these drugs has risen exponentially in recent decades to combat other 21st century diseases.

6 Population age and ethnicity
Middle-aged people and those of African, Hispanic and Pakistani origin have a tendency to be more obese than young people of European descent. Throughout the world the population is getting older and more ethnically diverse.

7 Older mothers
The average age at which a woman has her first child is rising. There is some evidence that the older a woman is when she gives birth the higher her child's risk of obesity.

8 Ancestry and environment.
Some health problems are passed down through the generations.
A tendency towards gestational diabetes will produce a child prone to obesity (who is, in turn, likely to produce obese children).

Very high-fat diets during pregnancy have been shown, in animals, to skew the metabolism of offspring two generations down the line.

9 Obesity link to fertility
Some evidence suggests that overweight and obese people are more fertile than lean ones. If obesity does have a genetic component, that makes it a dominant characteristic, and the percentage of obese people in the population is likely to increase.

10 Like marrying like
Obese women tend to marry obese men. If there are fewer thin people around — and if obesity is a dominant characteristic — then these couples will produce obese children, who will then go on to produce more obese children in the next generation.

Since the publication of the paper in 2006, other research has emerged suggesting links with excessive time spent watching television. Allergies and inflammation can also contribute to obesity.

You can't always “do something” about these factors. Some, (like heredity) for example, are simply a part of you. But others, such as sleep deprivation and environmental pollutants, are within your control, and dealing with them may make a substantial contribution to helping you slim down.

— *Extracted from The 21st Century Is Making You Fat: why your environment makes you put on weight and what you can do about it, by Pat Thomas (Hachette Livre, \$29.99).*

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