

The background of the slide is a light gray color with a pattern of faint, stylized chemical structures. These structures consist of interconnected lines representing atoms and bonds, forming various ring and chain shapes. The structures are scattered across the entire page, creating a scientific and molecular aesthetic.

Casual Friday Series

Advancements in Weight Loss Applications, Pt IV

A Biogenetix Clinical Presentation

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News > Reuters Health Information

US Doctors' Group Adopts New Policy on Healthy Weight Assessment

By Nancy Lapid
June 15, 2023

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1145



(Reuters) - The American Medical Association (AMA) on Wednesday said it will advise doctors to pay less attention to body mass index (BMI) in determining if a patient is at a healthy weight, saying the measure does not predict disease risk equally well across racial and ethnic groups.

BMI, a ratio of weight to height, has long been used to define underweight, "normal" weight, overweight, obesity and morbid obesity, despite mounting evidence that it is an inaccurate predictor of health risks on an individual level.

At the influential physician group's annual meeting in Chicago, members voted adopt a new policy that says BMI should be just one factor in determining whether a patient is at a healthy weight. Other measures such as body composition, belly fat, waist circumference, and genetic factors are also important, the AMA said.

There have been "issues with using BMI as a measurement due to its historical harm (and) its use for racist exclusion," the AMA said.



'Staggering' Weight Loss and Benefits in Body Composition With Tirzepatide

Becky McCall
May 19, 2023



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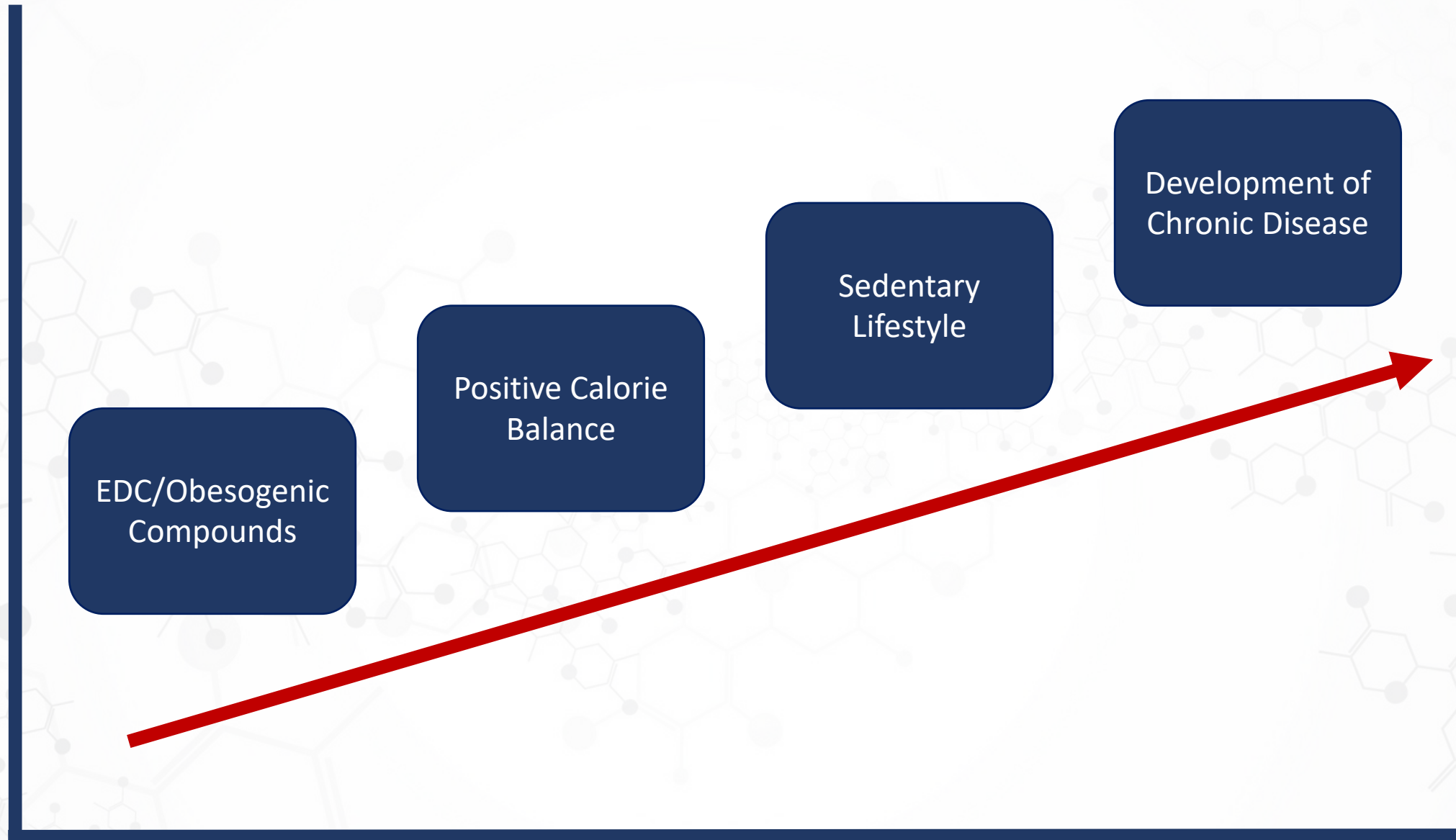
DUBLIN — Substantial reductions in body weight across body mass index (BMI) categories, as well as improved body composition, were achieved with tirzepatide (Mounjaro) in adults for chronic weight management, according to the latest results of the SURMOUNT-1 study.

The new analysis showed that up to 63% of participants achieved a reduction in body weight of at least 20%, and all three tirzepatide doses (5 mg, 10 mg, and 15 mg) led to substantial, clinically meaningful, and sustained body-weight reduction compared with placebo at 72 weeks of follow-up.

Mean weight loss was -16.0% , -21.4% , and -22.5% with tirzepatide 5 mg, 10 mg, and 15 mg compared with -2.4% for placebo (all $P < .001$ vs placebo). And among participants taking the highest 15-mg dose of tirzepatide, 96%, 90%, and 78% of patients achieved weight reductions of at least 5%, 10%, and 15%.



Body Weight



EDC/Obesogenic
Compounds

Positive Calorie
Balance

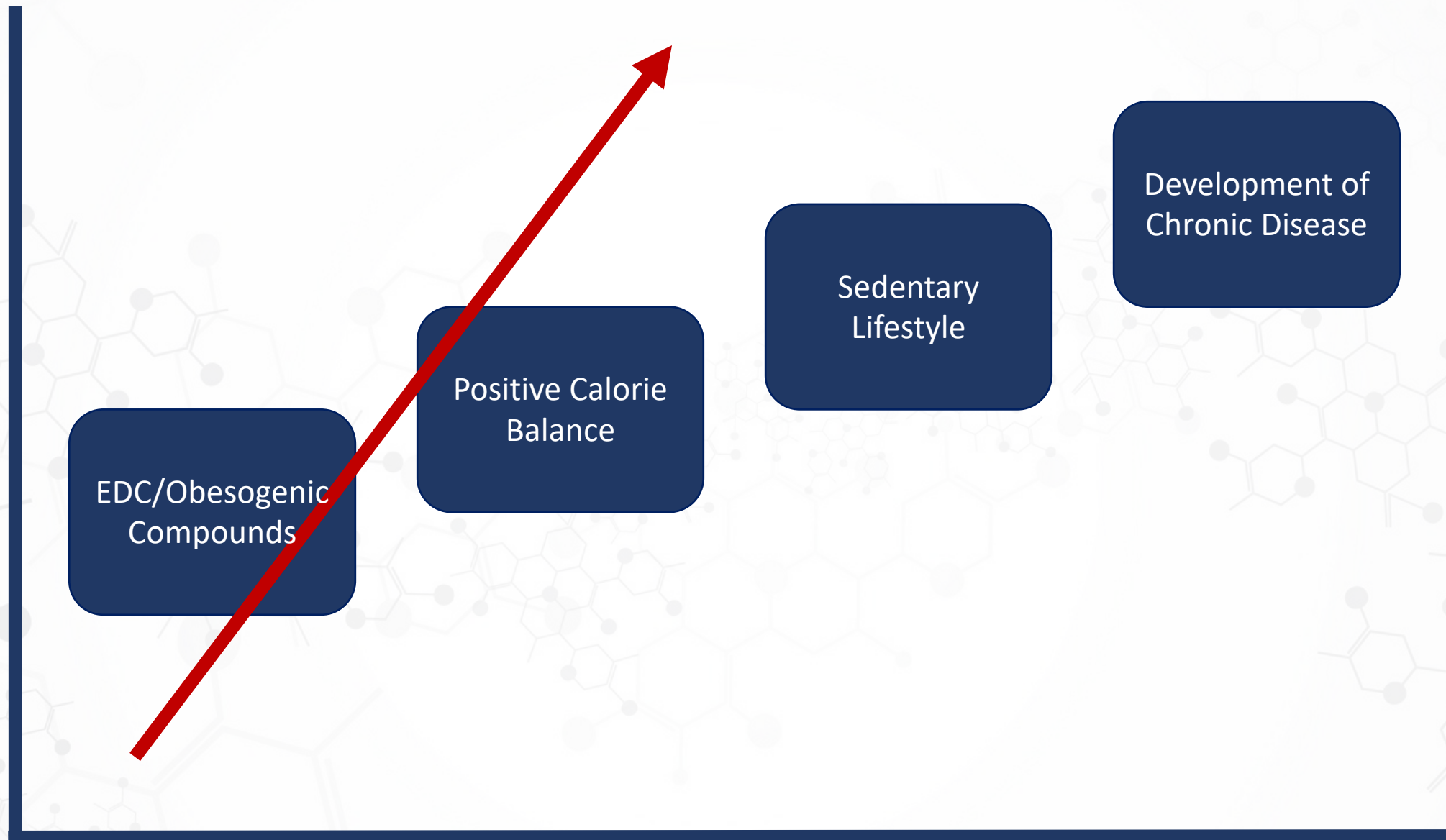
Sedentary
Lifestyle

Development of
Chronic Disease

Time



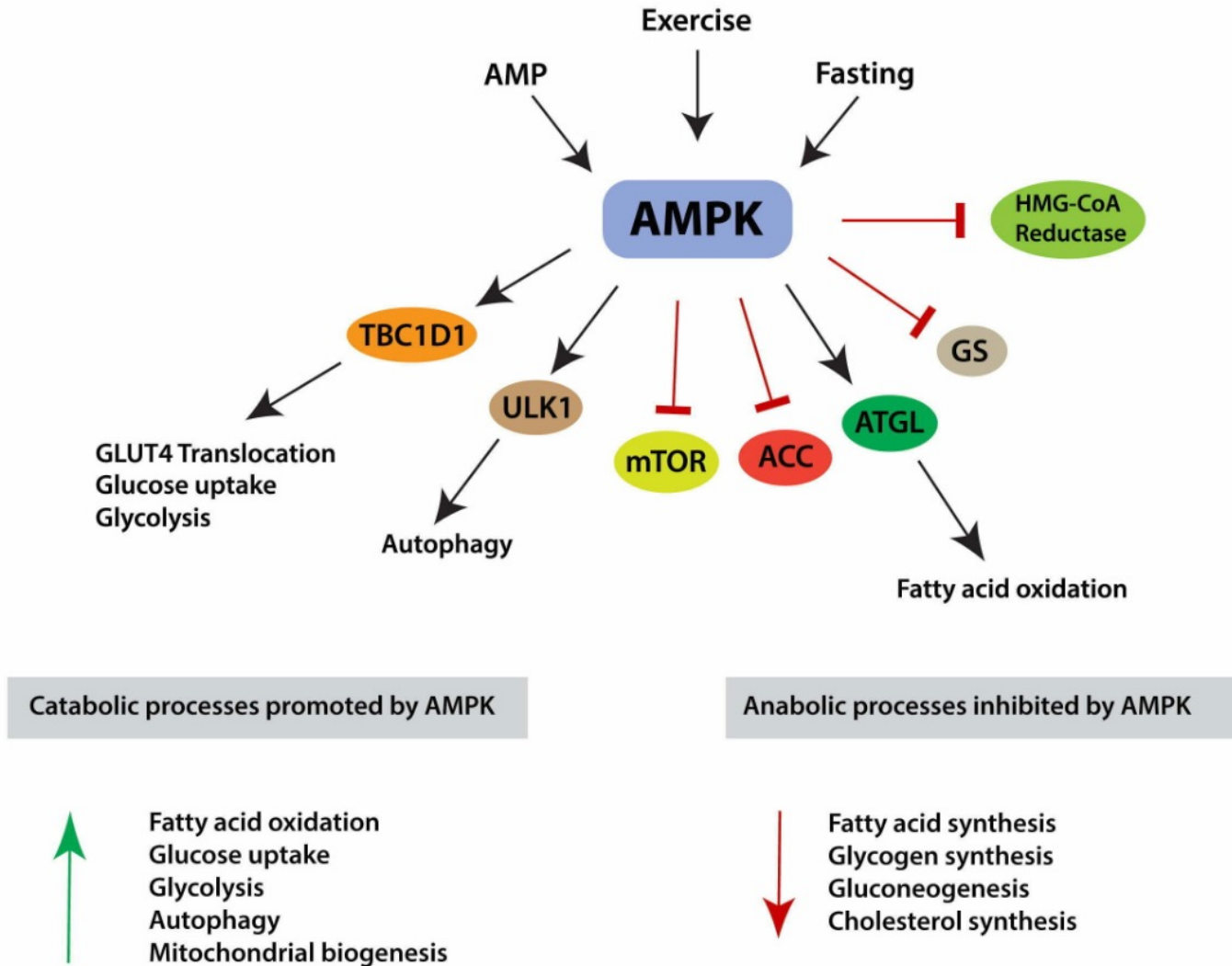
Body Weight



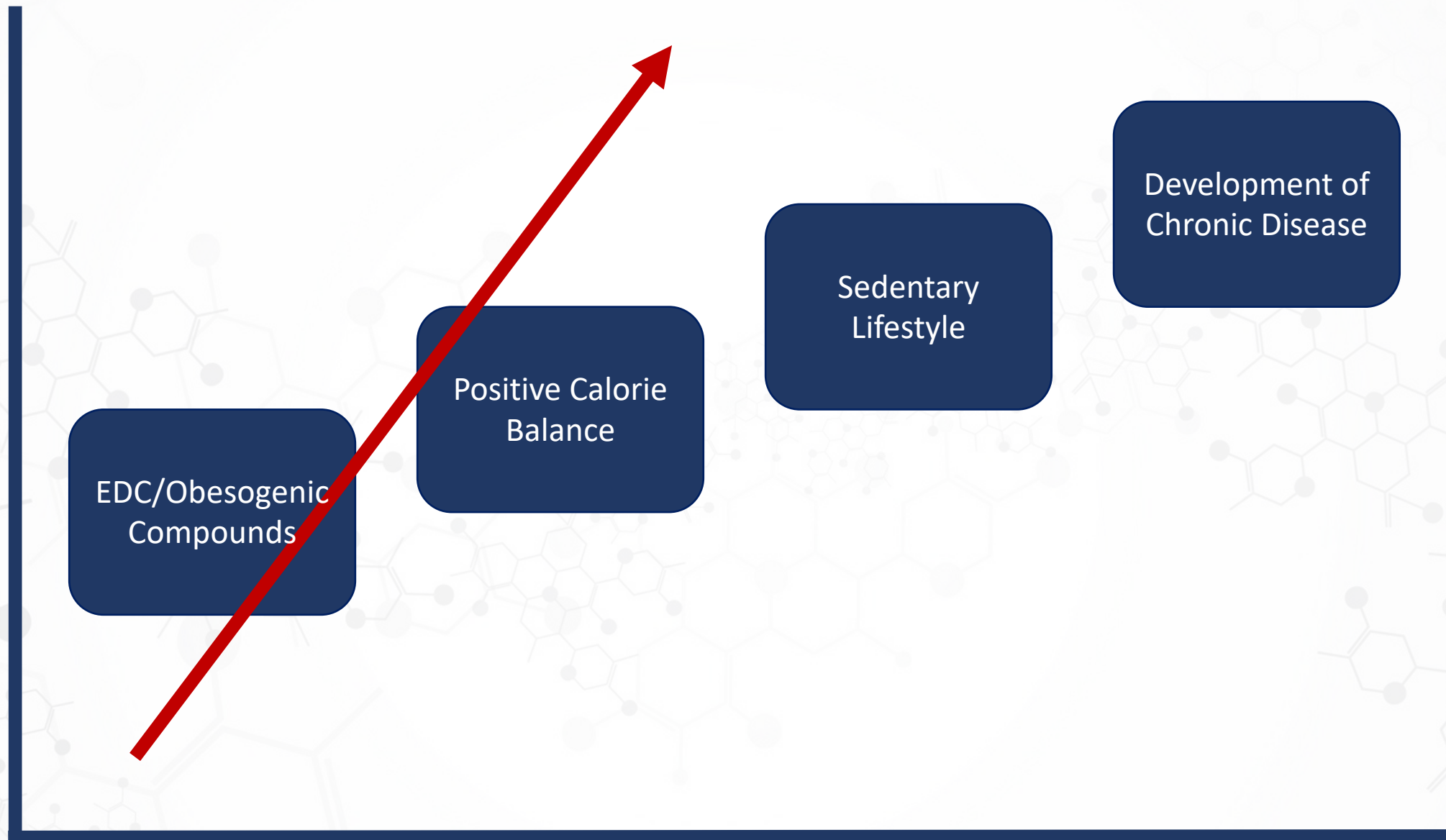
Time



Impacts of DHB on metabolism and cell maintenance:



Body Weight



Time



> [Milbank Q.](#) 2023 Mar;101(1):204-248. doi: 10.1111/1468-0009.12604. Epub 2023 Mar 13.

Have States Reduced Obesity by Legislating More Physical Activity in Elementary School?

[Paul T von Hippel](#) ¹, [David E Frisvold](#) ²

Affiliations + expand

PMID: 36913506 PMCID: PMC10037682 (available on 2024-03-01)

DOI: [10.1111/1468-0009.12604](#)



Much of the research about dieting focuses on weight loss — which (at least in the literature) shows a wide range of success and failure. According to the [University of Pennsylvania's Weight and Eating Disorders Program](#).

- 65% of dieters return to their pre-diet weight within three years.
- 5% of people who lose weight on a restrictive diet (such as liquid or no-carb diet) keep the weight off.
- On average, people with overall healthier diets are less likely to try to lose weight than those who have unhealthier diets. Here's the breakdown:
- Americans who describe their diets as "very healthy" have tried to lose weight about five times in their lives.
- Americans who describe their diets as "somewhat healthy" have tried to lose weight about eight times in their lives.
- Americans who describe their diets as "not healthy" have tried to lose weight about nine times in their lives.

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Myths, Presumptions, and Facts about Obesity

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Myth: data says the opposite.
Presumption: data doesn't say.



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Myth number 1: Small sustained changes in energy intake or expenditure will produce large, long-term weight changes.

Predictions suggesting that large changes in weight will accumulate indefinitely in response to small sustained lifestyle modifications rely on the half-century-old 3500-kcal rule, which equates a weight alteration of 1 lb (0.45 kg) to a 3500-kcal cumulative deficit or increment.^{5,6} However, applying the 3500-kcal rule to cases in which small modifications are made for long periods violates the assumptions of the original model, which were derived from short-term experiments predominantly performed in men on very-low-energy diets (<800 kcal per day).^{5,7} Recent studies have shown that individual variability affects changes in body composition in response to changes in energy intake and expenditure,⁷ with analyses predicting substantially smaller changes in weight (often by an order of magnitude across extended periods) than the 3500-kcal rule does.^{5,7} For example, whereas the 3500-kcal rule predicts that a person who increases daily energy expenditure by 100 kcal by walking 1 mile (1.6 km) per day will lose more than 50 lb (22.7 kg) over a period of 5 years, the true weight loss is only about 10 lb (4.5 kg),⁶ assuming no compensatory increase in caloric intake, because changes in mass concomitantly alter the energy requirements of the body.



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Myth number 2: Setting realistic goals for weight loss is important, because otherwise patients will become frustrated and lose less weight.

Although this is a reasonable hypothesis, empirical data indicate no consistent negative association between ambitious goals and program completion or weight loss.⁸ Indeed, several studies have shown that more ambitious goals are sometimes associated with better weight-loss outcomes (see the [Supplementary Appendix](#)).⁸ Furthermore, two studies showed that interventions designed to improve weight-loss outcomes by altering unrealistic goals resulted in more realistic weight-loss expectations but did not improve outcomes.



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Myth number 3: Large, rapid weight loss is associated with poorer long-term weight-loss outcomes, as compared with slow, gradual weight loss.

Within weight-loss trials, more rapid and greater initial weight loss has been associated with lower body weight at the end of long-term follow-up.^{9,10} A meta-analysis of randomized, controlled trials that compared rapid weight loss (achieved with very-low-energy diets) with slower weight loss (achieved with low-energy diets — i.e., 800 to 1200 kcal per day) at the end of short-term follow-up (<1 yr) and long-term follow-up (=1 year) showed that, despite the association of very-low-energy diets with significantly greater weight loss at the end of short-term follow-up (16.1% of body weight lost, vs. 9.7% with low-energy diets), there was no significant difference between the very-low-energy diets and low-energy diets with respect to weight loss at the end of long-term follow-up.¹⁰ Although it is not clear why some obese persons have a greater initial weight loss than others do, a recommendation to lose weight more slowly might interfere with the ultimate success of weight-loss efforts.



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Myth number 4: It is important to assess the stage of change or diet readiness in order to help patients who request weight-loss treatment.

Readiness does not predict the magnitude of weight loss or treatment adherence among persons who sign up for behavioral programs or who undergo obesity surgery.¹¹ Five trials (involving 3910 participants; median study period, 9 months) specifically evaluated stages of change (not exclusively readiness) and showed an average weight loss of less than 1 kg and no conclusive evidence of sustained weight loss (see the [Supplementary Appendix](#)). The explanation may be simple — people voluntarily choosing to enter weight-loss programs are, by definition, at least minimally ready to engage in the behaviors required to lose weight.



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Myth number 5: Physical-education classes, in their current form, play an important role in reducing or preventing childhood obesity.

Physical education, as typically provided, has not been shown to reduce or prevent obesity. Findings in three studies that focused on expanded time in physical education¹² indicated that even though there was an increase in the number of days children attended physical-education classes, the effects on body-mass index (BMI) were inconsistent across sexes and age groups. Two meta-analyses showed that even specialized school-based programs that promoted physical activity were ineffective in reducing BMI or the incidence or prevalence of obesity.¹³ There is almost certainly a level of physical activity (a specific combination of frequency, intensity, and duration) that would be effective in reducing or preventing obesity. Whether that level is plausibly achievable in conventional school settings is unknown, although the dose–response relationship between physical activity and weight warrants investigation in clinical trials.



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Myth number 6: Breast-feeding is protective against obesity.

A World Health Organization (WHO) report states that persons who were breast-fed as infants are less likely to be obese later in life and that the association is “not likely to be due to publication bias or confounding.”¹⁴ Yet the WHO, using Egger’s test and funnel plots, found clear evidence of publication bias in the published literature it synthesized.¹⁵ Moreover, studies with better control for confounding (e.g., studies including within-family sibling analyses) and a randomized, controlled trial involving more than 13,000 children who were followed for more than 6 years¹⁶ provided no compelling evidence of an effect of breast-feeding on obesity. On the basis of these findings, one long-term proponent of breast-feeding for the prevention of obesity wrote that breast-feeding status “no longer appears to be a major determinant” of obesity risk¹⁷; however, he speculated that breast-feeding may yet be shown to be modestly protective, current evidence to the contrary. Although existing data indicate that breast-feeding does not have important antiobesity effects in children, it has other important potential benefits for the infant and mother and should therefore be encouraged.



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Presumption number 1: Regularly eating (versus skipping) breakfast is protective against obesity.

Two randomized, controlled trials that studied the outcome of eating versus skipping breakfast showed no effect on weight in the total sample.²⁰ However, the findings in one study suggested that the effect on weight loss of being assigned to eat or skip breakfast was dependent on baseline breakfast habits.²⁰

Presumption number 2: Early childhood is the period in which we learn exercise and eating habits that influence our weight throughout life.

Although a person's BMI typically tracks over time (i.e., tends to be in a similar percentile range as the person ages), longitudinal genetic studies suggest that such tracking may be primarily a function of genotype rather than a persistent effect of early learning.²¹ No randomized, controlled clinical trials provide evidence to the contrary.



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Presumption number 3: Eating more fruits and vegetables will result in weight loss or less weight gain, regardless of whether any other changes to one's behavior or environment are made.

It is true that the consumption of fruits and vegetables has health benefits. However, when no other behavioral changes accompany increased consumption of fruits and vegetables, weight gain may occur or there may be no change in weight.^{[22](#)}

Presumption number 4: Weight cycling (i.e., yo-yo dieting) is associated with increased mortality.

Although observational epidemiologic studies show that weight instability or cycling is associated with increased mortality, such findings are probably due to confounding by health status. Studies of animal models do not support this epidemiologic association.^{[23](#)}



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Presumption number 5: Snacking contributes to weight gain and obesity.

Randomized, controlled trials do not support this presumption.²⁴ Even observational studies have not shown a consistent association between snacking and obesity or increased BMI.

Presumption number 6: The built environment, in terms of sidewalk and park availability, influences the incidence or prevalence of obesity.

According to a systematic review, virtually all studies showing associations between the risk of obesity and components of the built environment (e.g., parks, roads, and architecture) have been observational.²⁵

Furthermore, these observational studies have not shown consistent associations, so no conclusions can be drawn.





Figure 2. The Diabetes Epidemic Does Not Correlate With the Increase in Sugar Consumption

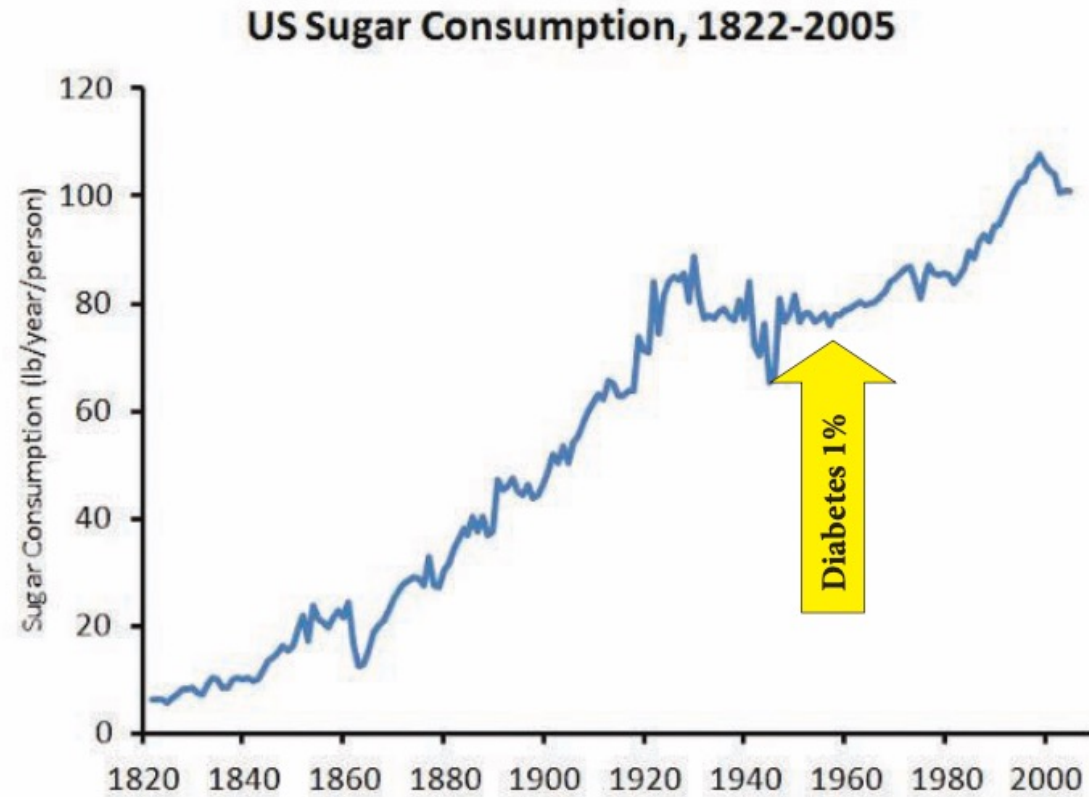


Figure 3. The Diabetes Epidemic Correlates With Release of POPs Into the Environment⁴

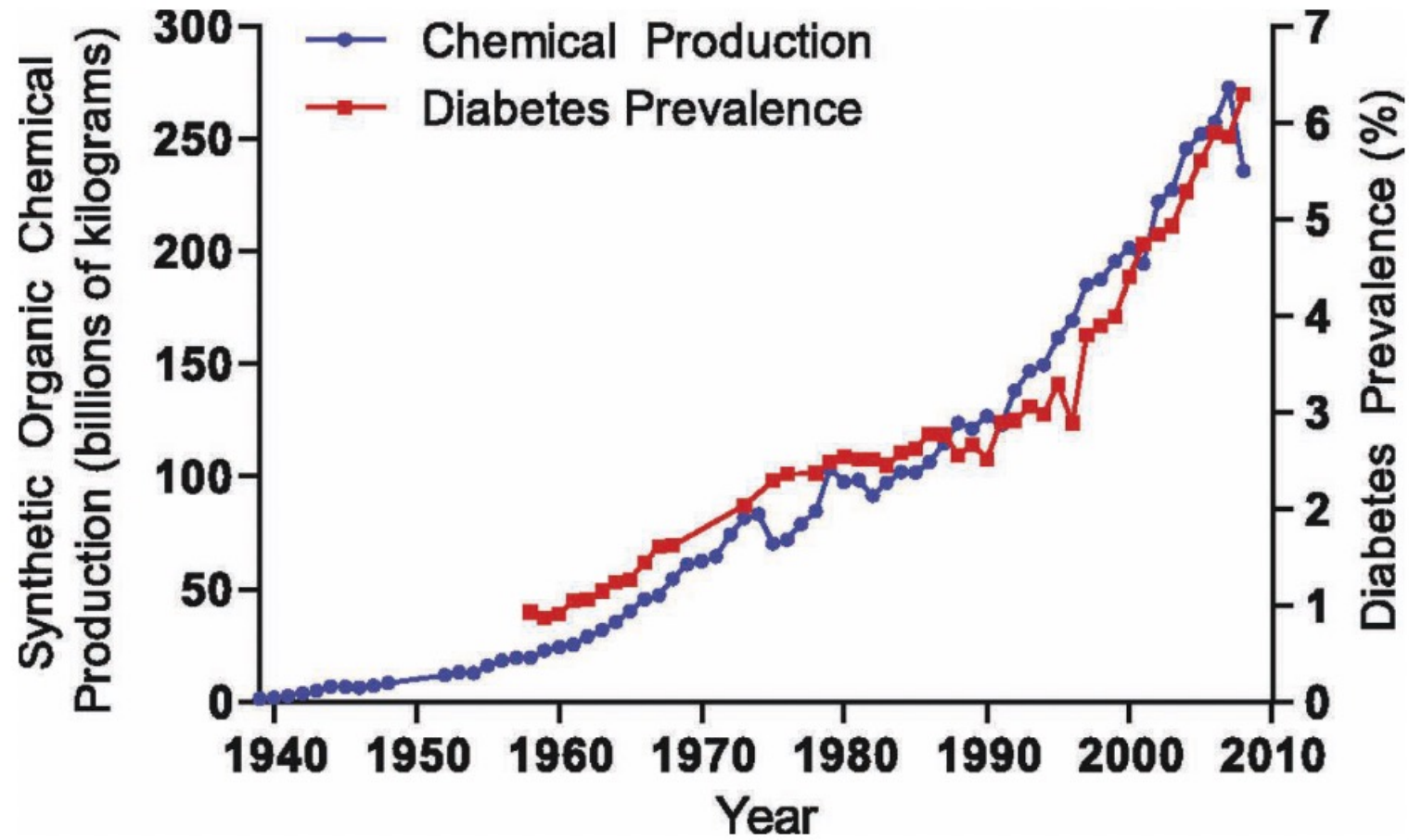
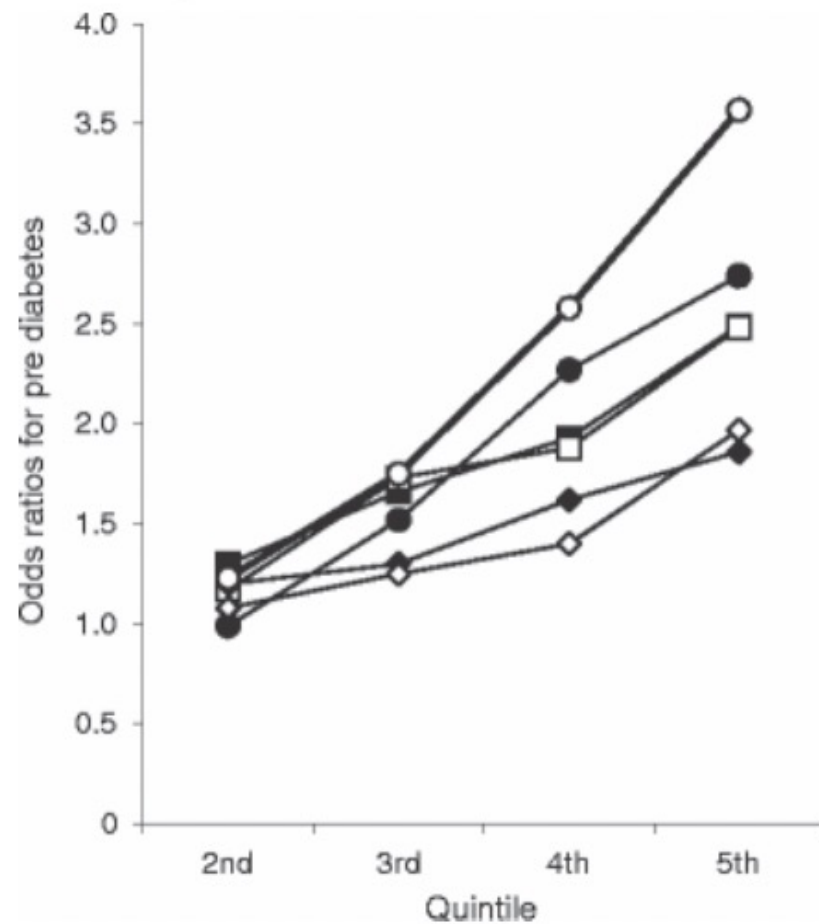
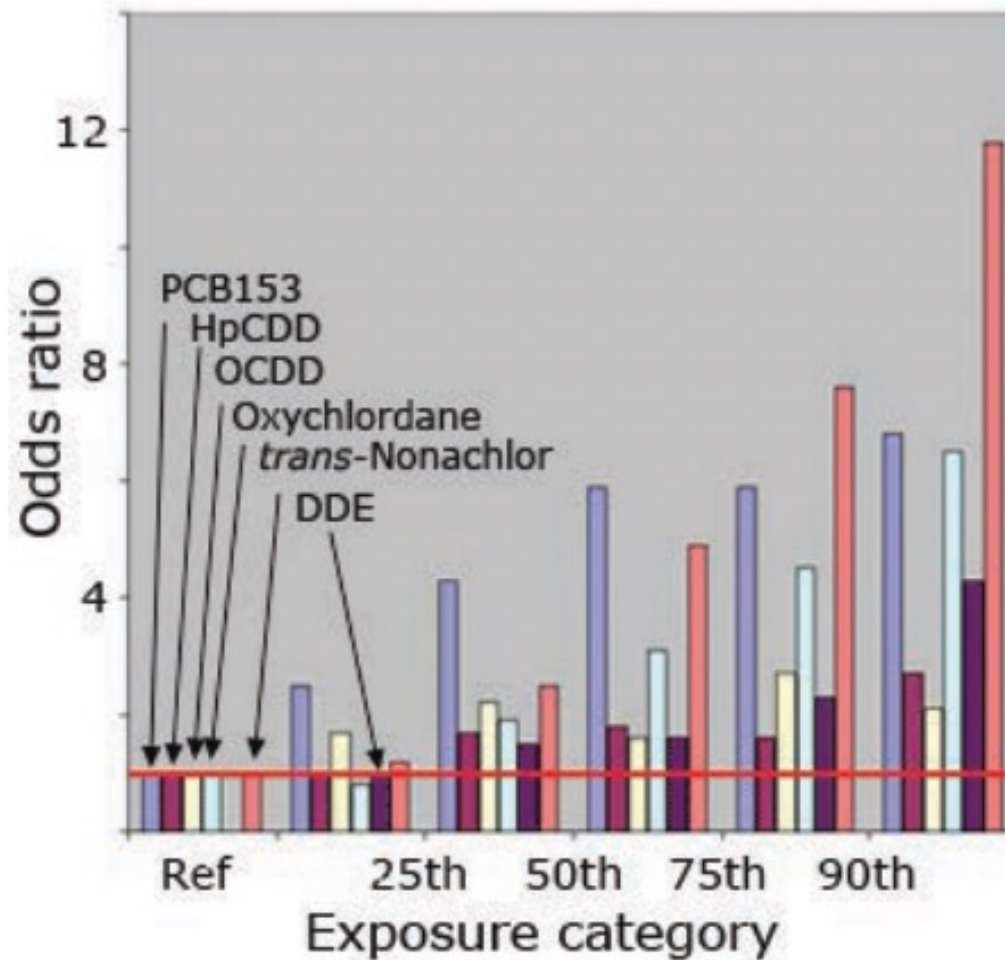


Figure 4. Body Load of POPs Correlates With Metabolic Syndrome⁵



Note: The prevalence of prediabetes increases with increased circulating levels of POPs. Black circles, PCBs (15 congeners); black squares, *p,p'*-DDE; white squares, *p,p'*-DDT; black diamonds, HCB; white diamonds, β -HCH; white circles, POLL5.

Figure 5. Very Strong Diabetes Risk in Those With the Highest Levels of POPs⁶



Abbreviations: PCB, polychlorinated biphenyl; hpCDD, heptachlorodibenzo-*p*-dioxins; OCDD, octachlorodibenzo-*p*-dioxin; DDE, dichlorodiphenyldichloroethylene.

Figure 6. Arsenic Levels Correlate With Diabetes¹³

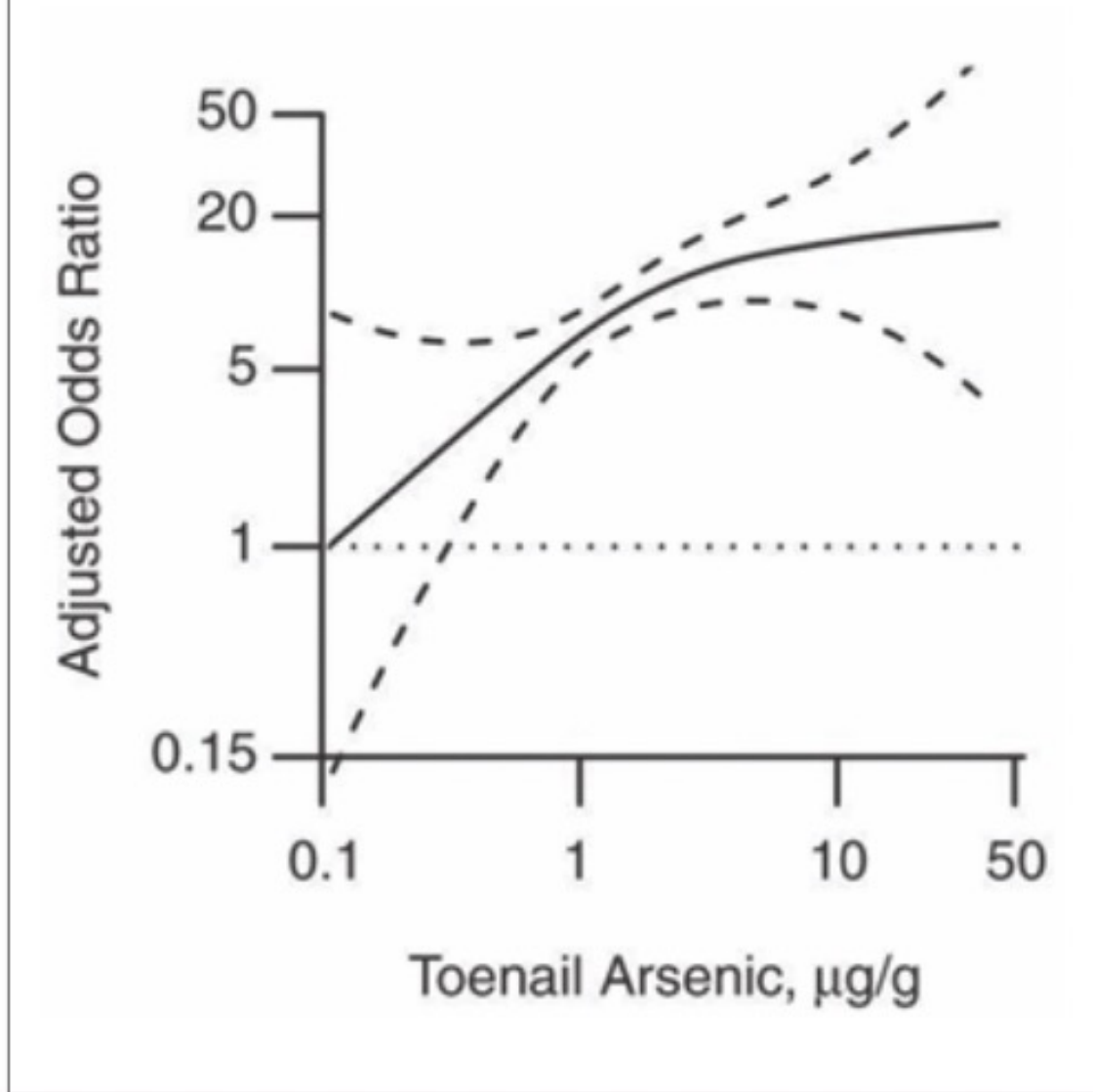
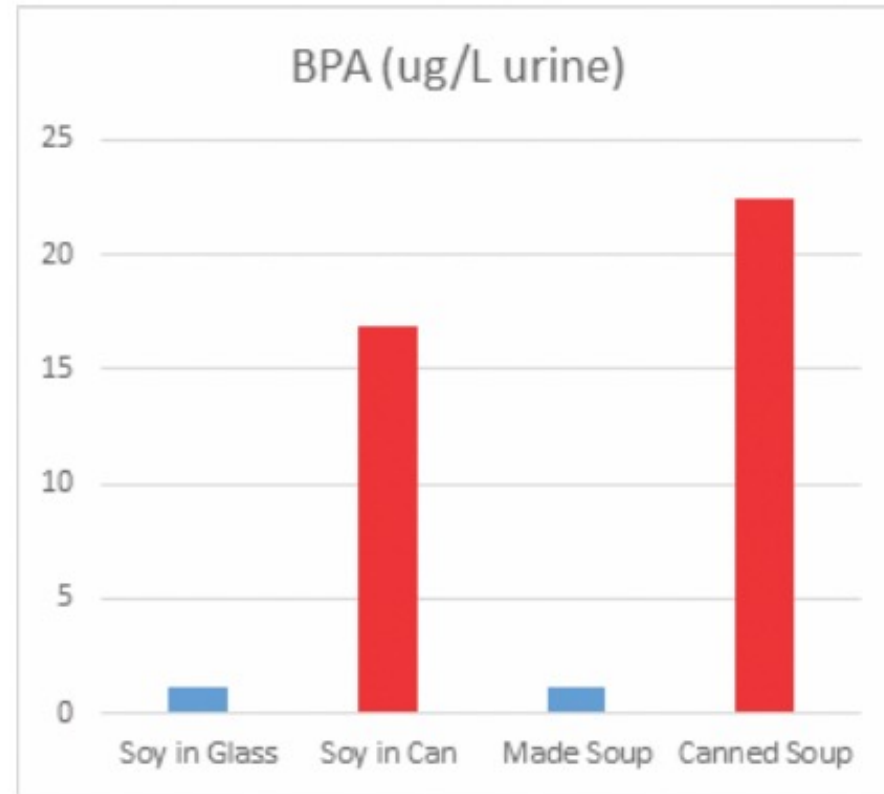
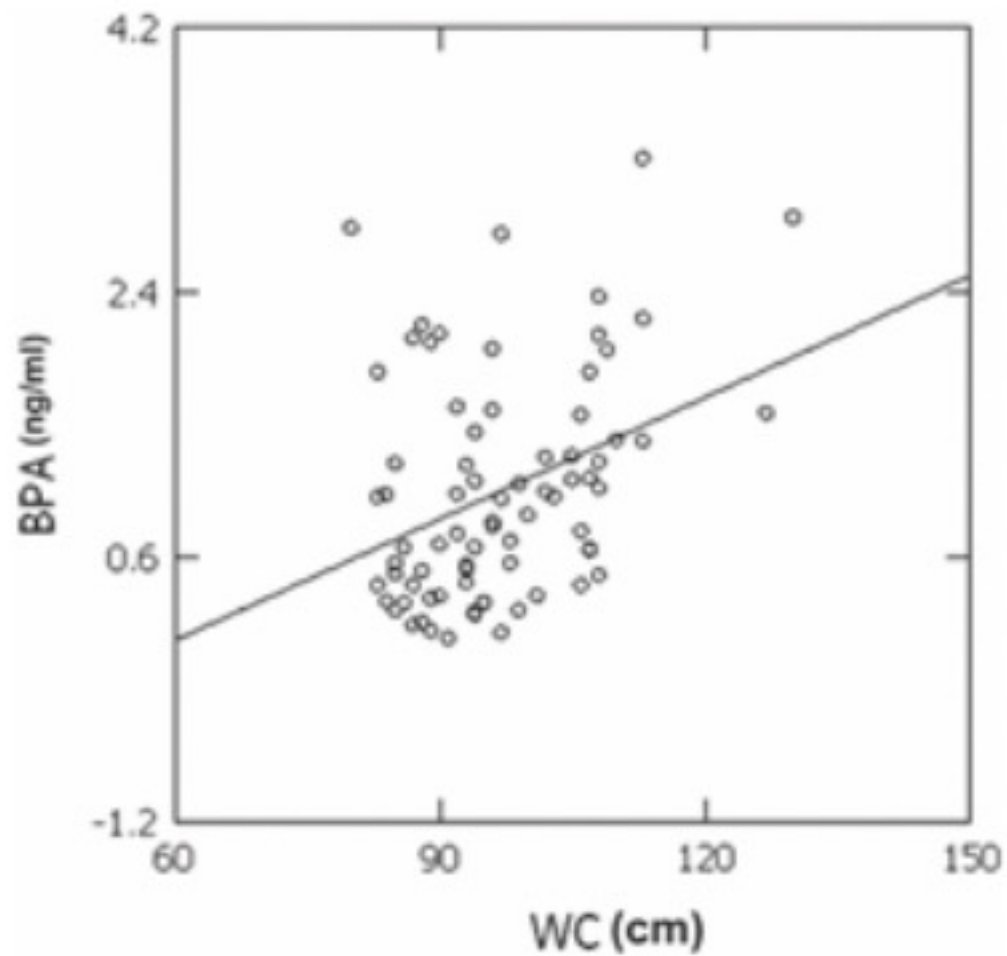


Figure 9. Canned Foods Have High Levels of BPA

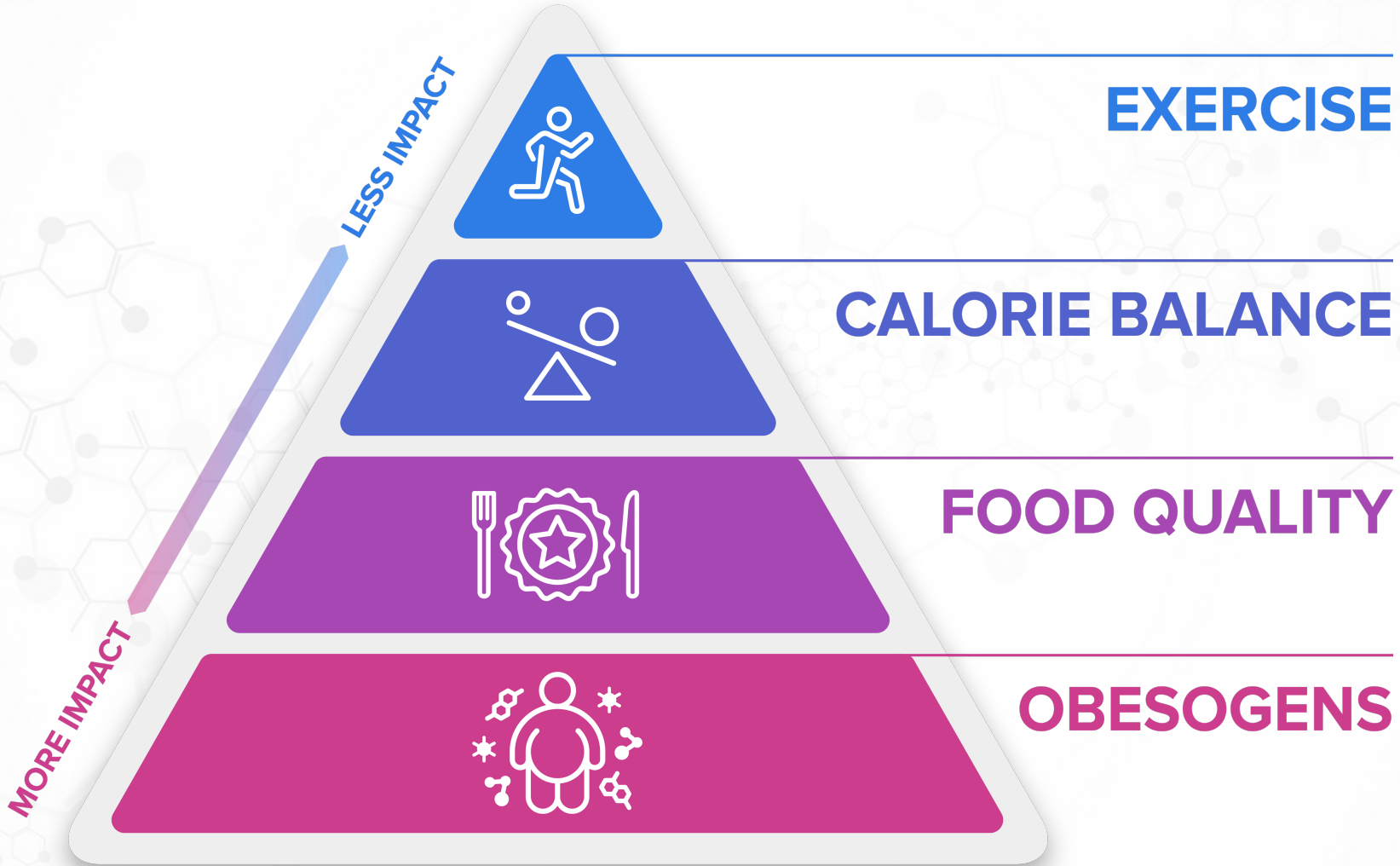


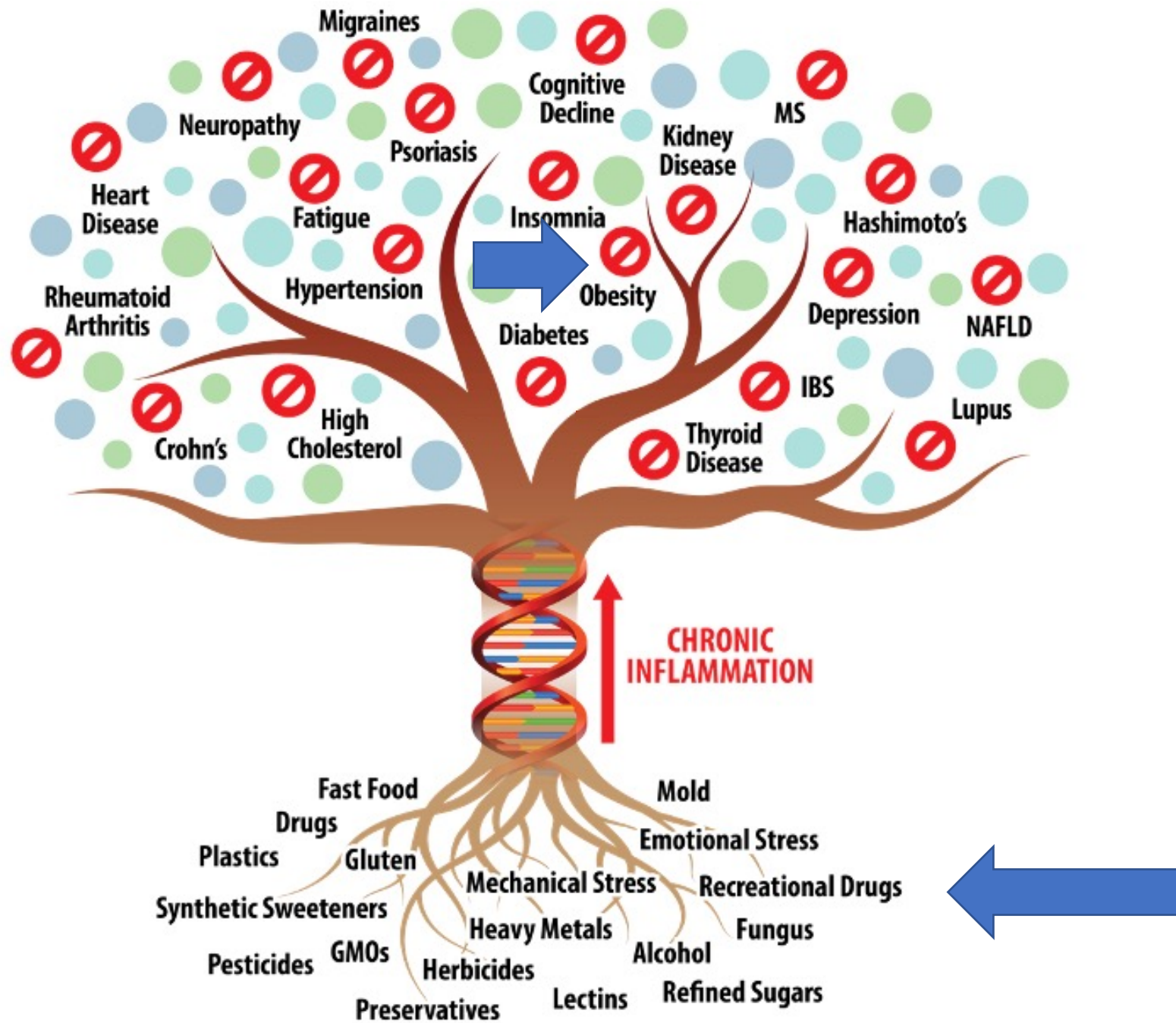
Abbreviation: BPA, bisphenol A.

Figure 7. BPA Correlates With Visceral Fat¹⁵

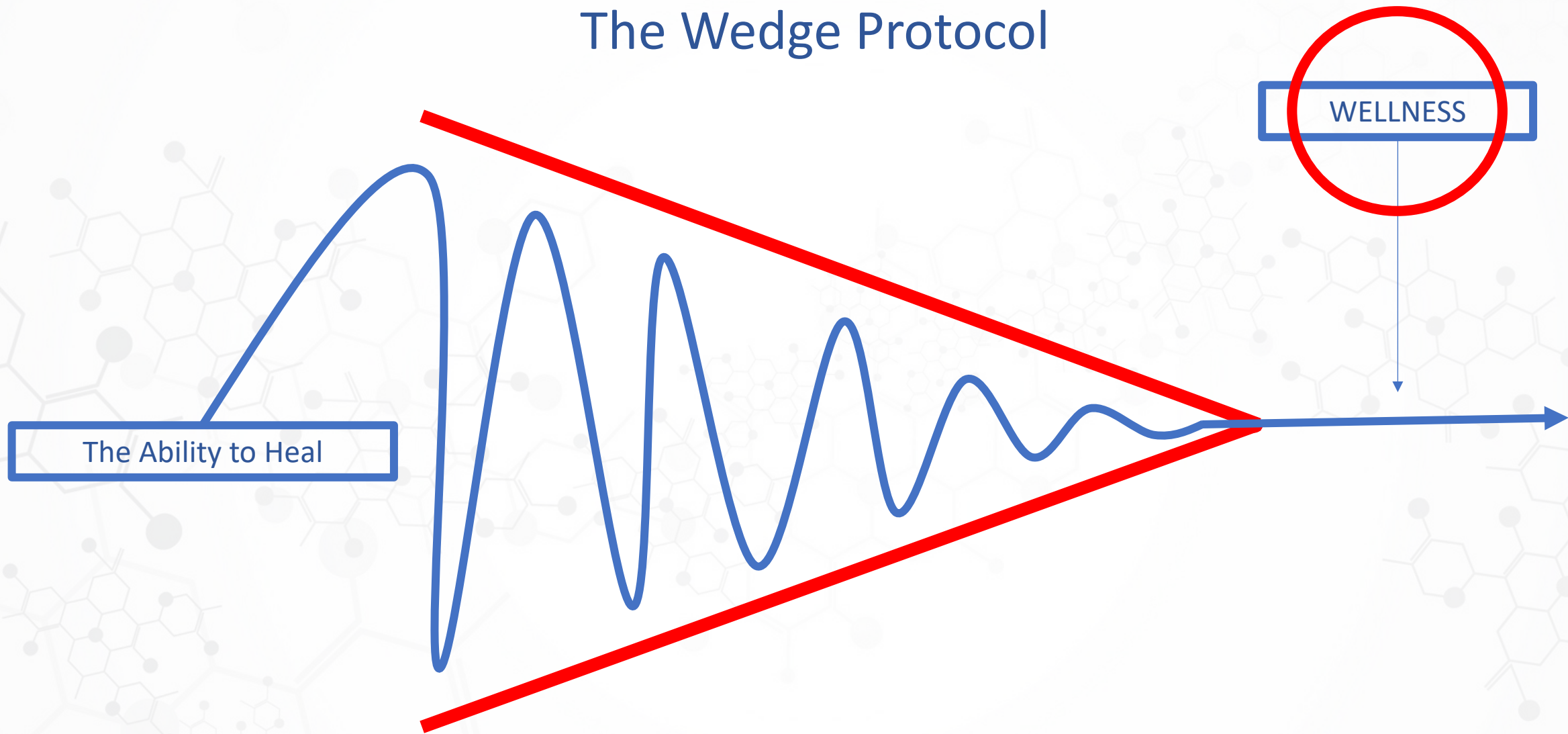


Abbreviations: BPA, bisphenol A; WC, waist circumference.





The Wedge Protocol



The Ability to Heal

WELLNESS

